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THE RELATIONSHIP BETWEEN MEASURED LEVELS OF STRESS
AND COPING PREFERENCES OF NORTH CAROLINA ELEMENTARY
PRINCIPALS

by

Devon Ronnie Carson

A Dissertation

Submitted in Partial Fulfillment of the

Requirements for the Degree of

Doctor of Education

Major: Leadership and Policy Studies

The University of Memphis

December 2010

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Lastly, the greatest debt is owed to my wife, Heather, and my mother and dad, whose love and support is always a part of whatever I achieve.

Dedication

This dissertation is dedicated
to my wife, Heather Michelle
to our daughters, Aubrey and Aaliya
and to my parents,
Charles and Sandra Carson
who each have given me a
full measure of support
and encouragement
in all my endeavors.

Abstract

Carson, Devon Ronnie. Ed.D. The University of Memphis. December 2010. The Relationship Between Measured Levels of Stress and Coping Preferences of North Carolina Elementary Principals. Major professor: Dr. Larry McNeal.

The purpose of the study was to examine the sources of stress and the coping preferences of elementary school principals in North Carolina. Secondary analysis addressed demographic differences and any relationships between stress and coping preferences. Data were collected through the survey research method and was primarily descriptive and correlation.

A questionnaire was emailed to 500 participants randomly selected for this research, 222 responded. The first section of questions consisted of the Administrative Stress Index (ASI), which comprised 35 stressors principals confront in their work. The second set of questions included the Roesch Coping Preference Scale (RCPS), consisting of 23 statements to obtain coping preferences of administrators. The final section of the questionnaire consisted of nine questions designed by the researcher to obtain necessary demographic information. The respondents of the ASI reported a mean score of 93.01. The findings suggest that elementary school principals of North Carolina were moderately stressed in their jobs.

The data indicated that principals preferred on the RCPS extra-work activities, consulting techniques, and time out activities. In conclusion, principals must be aware of the factors that cause stress, focus on effective coping strategies, and engage in activities that reduce stress. The key findings from these data show: (1) elementary school principals convey that they are stressed; (2) the top four stressors are: too heavy of a work

load; feeling that meetings take up too much time; and failing to complete reports or other paperwork on time; and daily interruptions from staff members; (3) there are no significant differences between the variables of age, years in education, level of education, and school location when compared to principals' mean stress indexes and coping preferences; (4) principals relied upon taking work home, working on weekends, and collaborating with colleagues to discuss concerns were used to cope and effectively reduce stress; (5) according to the data, Title I principals reported to be more stressed than non-Title I principals; and (6) there are no significant differences among new and veteran elementary principals' mean stress indexes.

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Chapter 1

Introduction of Study

The principalship is nearly overwhelming in its complexity (Guthals, 2009). The stress level is at an all time high, especially when you consider the role of the principal. Today's principals are adversely affected by job related stress. "An elementary principal must understand everything from phonemic segmentation to personnel supervision in order to facilitate an optimal learning environment in his or her school" (Guthals, 2009, p. 1). Principals work long hours, and the ever increasing demands placed on school principals have yielded increased levels of exhaustion, resulting in declining physical and mental health (Brock & Grady, 2002). Nearly half of principals are on some medication due to the stress of their occupation (Tomizan & Waldon, 2004). The demands of the principalship are advancing from various directions: students, parents, teachers, school boards, government agencies, central office, and special interest groups taxing the principal's time and resources and causing stress (Okoroma & Robert-Okah, 2007).

The position of principal is paramount to all central aspects of each school's operation (Murphy, 1992). As the role of the school principal continues to expand at a rapid pace due to increasing political and societal pressures, it is imperative that today's principals are more than capable of dealing and handling a wide range of responsibilities. This is noted by Murphy (1992) who states:

In addition to addressing the unfinished business agendas of the past and tackling the current crises, the administrators of tomorrow's schools will face the challenge of leading schooling into the information age, of shaping the metamorphosis of educational purpose and organizational structure...They are

being asked to help discern the larger forces that influence education in the twenty-first century, and to define and share those forces. (p.123)

“Education administration is not the attractive job it once was. Society is placing such high demands on schools that educators are beginning to wonder if they can meet these demands successfully” (Sousa, 2003, p. 283). Fallon (1981) states that confrontation, conflict, compromise are daily barriers for administrators to overcome. However, with the push for more accountability and high stakes testing in education, budget constraints that does not allow for the appropriate personnel on staff, and the increasing level of social problems all place even greater challenges on schools (Monroe, 2007). These are indicators as to the level of stress that elementary principals deal with on a constant basis. Stress is prevalent and pervasive in the workday of the principal.

Background of Study

According to Selye (1974) stress is defined as “the nonspecific response of the body to any demand placed upon it” (p. 74). He stated that stress is a natural part of life and is stimulated by anything that holds value to the individual. The nature of the stress could be from any type of interaction. Although the interaction does not matter if it is positive or negative, it still causes some form of stress (Brock & Grady, 2004). The activities that a person experience on a frequent basis from stress are called stressors (Volpe, 2000).

According to Gmelch and Chan (1994), there are two different types of stress; one that is positive and other is negative. The pleasant type of stress is called eustress. An example of eustress would be if a person received a promotion to his or her first

principalship. Even though most people would consider this as a positive activity in their life; the stress reaction would still be formed.

The other form of stress that is unpleasant is called distress (Gmelch & Chan, 1994). An example of this type of stress would resemble a person who had to bury a child or family member. When a person sense great amounts of distress it can lead to anxiety, which is when a person experiences a feeling of immediate disaster that is associated with apprehension. A person who has high levels of distress could suffer from physical, emotional, and mental exhaustion that could inhibit them from successfully completing a task or their job. The physical, emotional, and mental exhaustion from stress is referred to as burnout (Queen & Queen, 2005). This form of stress is the kind that impacts principals the most because if not managed appropriately, this stress could result in loss of the principalship due to fatigue and even failed health.

The Problem Statement

Elementary principals in the southeast United States are affected by stress as are others in the profession throughout the country. Learning to identify stressors and coping with stress is important. The problem under investigation is the identification of common stressors of elementary principals and effective ways to coping with stress in schools.

Research Questions

1. What is the mean overall stress index of North Carolina elementary principals on the Administrative Stress Index?
2. What are the major perceived job stressors by elementary school principals in North Carolina as measured by the Administrative Stress Index? (Gmelch & Swent, 1977).

3. What are the coping strategies as measured by the Roesch Coping Preference Scale (RCPS) utilized to reduce the level of stress by the elementary school principals in North Carolina?

4. Are there significant differences between the identified coping strategies by the elementary school principals in North Carolina who have more than three years experience compared to the elementary principals who has less than three years?

5. What is the relationship between the level of perceived stress by elementary school principals in North Carolina and selected demographics? The demographic variables are: age, ethnicity, level of education, number of years as an elementary school principal, years of service to the district, and school location?

6. What is the relationship between the coping preferences by elementary school principals in North Carolina and selected demographics? The demographic variables are: age, ethnicity, educational level, number of years as an elementary school principal, and school location?

7. Are Title I principals more stressed than non-Title I principals as measured by the Administrative Stress Index?

The Purpose Statement

The purpose of this study is to identify what elementary school principals perceive as on-the-job stressors as identified by the Administrative Stress Index (Gmelch, Koch, Swent, & Tung, 1982). This study compares the differences between identified stressors of new elementary school principals on the job less than three years and elementary school principals in the job for more than three years. A second purpose of this study is to identify what elementary school principals employed as their preferred coping strategies.

This study further compares the differences between identified coping strategies of new elementary school principals in the job less than three years and elementary school principals in the job for more than three years. In addition, the study also will measure the differences of perceived stress level of Title I principals as compared to non- Title I elementary principals.

Finally, the study measures whether there was a significant difference in perceived stress levels and coping preferences of principals in regards to: (a) age, (b) years as a principal, (c) school location, and (d) years of service to district.

Theoretical Framework

The framework of person-environment fit has an extensive history in career development (Sekiguchi, 2004).

Person-Environment Fit Theory is a widely used theoretical framework and perspective that lends itself to comprehending the behavior and thinking of organizations (Kristof-Brown, Zimmerman, & Johnson, 2005). The Person-Environment Fit focuses on the relationship between the individual and the environment (Evers, Anderson, & Voskuuji, 2005). The theory focuses on the stress that is encountered on a daily basis by principals; it examines the discrepancy between the motives (demands) and capacity of each principal and the supplies of the environment/job (Job Stress Network, 2010). “The motives include factors such as participation, income, and self-utilization. Demands include workload and job complexity” (Job Stress Network, 2010, p. 1).

Takase, Maude, and Manias (2005) support the Person-Environment Fit theory for matching employees with their workload. These same researchers focus on the relationship of the persons and the environment and his or her level of fitness and

congruence between occupational behaviors of employees. “Employees’ experience of the fit also differs from workplace to another in accordance with their environmental characteristics, although the employees embrace the same professional needs and preferences. Yet, the underlying assumption is that the fit between employees’ needs/preferences and the work conditions supplied by their environment enhances their occupational behaviors. A misfit (or mismatch) between them, either in a lack of or an excess of environmental reinforcement (supplies), adversely affects their occupational performance” (p. 212).

Holland (1985) reports that the Person-Environment Fit has several attributes; one is personality which could be described as investigative, social, realistic, enterprising, or artistic. An interest inventory can be given to assess the individual’s classification. The person also brings in his or her professional goals that they want to accomplish (Schkade & Schultz, 1992). The last attribute is one that focuses on the environment. According to Walsh and Holland (1992), each work environment has a set of characteristics that directly affects the Person-Environment Fit. In this instance, the researchers state that characteristics are based on the personality of all employees.

By addressing the Person-Environment Fit theoretical model, superintendents will have a higher success rate at placing principals in different school settings; therefore allowing the school districts to meet changing needs more quickly and effectively. With fit being a primary focus for school districts they will be able reduce stress for principals by aligning the characteristics of the principal’s personality and their work environment which result in positive outcomes for the individual and the organization (Ostroff, Shin, & Feiberg, 2002).

Significance of the Study

This study will extend the limited research regarding perceived stress and coping skills among elementary school principals. The current literature revealed that the demands of elementary principals have increased significantly. Consequently, this has made the job of administrators in elementary schools a highly stressful one.

This study identifies coping preferences for managing stress among elementary school principals. Sharing this knowledge with current elementary school principals will optimistically reduce stress and burnout (Maslach & Loiter, 1997). This study compares the stressors and coping strategies of new elementary school principals with less than three years of experience to elementary school principals with more than three years of experience. Redfox (2005) suggest that studying novice principals is essential because of their limited knowledge of “modern-day principal” (p.133). Viadero (2009) states that only about half of all beginning principals remain in the same job five years later, and many leave the principalship altogether. This research provides information about differences in stress levels and coping strategies between elementary school principals who work at title I schools and elementary school principals who do not.

Although no research study could ever predict how administrators should handle situations to reduce stress and burnout effectively in every situation, the aim of this research is to reveal causes of excessive stress. Schools would undoubtedly benefit if elementary school principals did a better job coping with stress, while administrators could live a healthier life and maintain a higher level of self-confidence and energy, resulting in a more positive atmosphere that would make a more efficient learning environment for students (Roesch, 1979).

Definitions of Terms

For the purposes of this study the following definitions were used:

Administrative Stress Index (ASI). An index developed by Gmelch and Swent to measure 35 work related situations as sources of school administrator stress. The instrument uses a 5-point Likert scale (Gmelch, 1982).

Boundary-spanning stress. "Emanates from external conditions, such as negotiations and gaining public support for school budgets" (Gmelch & Chan, 1994, p. 30)

Burnout. Burnout is a syndrome of emotional exhaustion and cynicism that occurs frequently among individuals who do "people work" of some kind (Maslach & Jackson, 1981).

Chronic Stress. Refers to an individual's heightened psychological or physiological response to perceived stress, which continues over an extended period of time (Cedoline, 1982).

Coping styles or preferences. The way in which one deals with perceived stress either consciously or unconsciously (Roesch, 1979).

Conflict-mediating stress. "Arises from the administrator's handling of conflicts within the school, such as trying to resolve differences between and among students, resolving parent and school conflicts, and handling student discipline problems" (Gmelch & Chan, 1994, p. 30).

Experienced Elementary School Principals. Principals of a school for grades kindergarten, first, second, third, fourth, and fifth who have been in that role for more than four years (Redfox, 2005).

New Elementary School Principals. Principals of a school for grades kindergarten, first, second, third, fourth, and fifth who have been in that role for three years or less (Redfox, 2005).

Occupational Stress. "A situation wherein job related factors interact with the worker to change (disrupt or enhance) his or her psychological and/or physiological condition such that the person (i.e. mind body) is forced to deviate from the normal functioning" (Newman & Beehr, 1979, p. 79).

Principal. The chief administrator who holds a presiding ranking or position, usually of an elementary or high school (American Heritage Dictionary of the English Language, 2003).

Role-based stress. "Perceived from the principal's role-set interactions and beliefs or attitudes about his or her role in the schools" (Gmelch & Chan, 1994, p. 30)

Stress. "The anticipation of our inability to respond adequately to a perceived demand, accompanied by our anticipation of negative consequences for an inadequate response"(Gmelch 1982, p. 84).

Stress Level. Refers to the respondent's scores as measures by the Administrative Stress Index [ASI] (Gmelch & Torelli, 1994).

Stressor. Refers to any action, which places psychological or physical demands on an individual (Gmelch, 1977)

Task-based stress. "Arises from the performance of day-to-day administrative activities, from telephone and staff interruptions, meetings, writing memos and reports to participating in school activities outside the normal working hours" (Gmelch & Chan, 1994, p. 30)

Limitations

This study is limited by the willingness of survey respondents to participate and to answer the survey honestly. Additional possible limitations of this study are participant bias, race, sample selection, and geographic location.

Delimitations

This study is limited to elementary school principals in public schools in a state located in the southeastern United States. The study's population is public elementary school principals during the school year of 2009-2010. The study did not include assistant principals, principals of alternative school, extended day schools, special day schools, charter schools or residential schools. The study also did not include principals of parochial or private schools. Furthermore, the study did not take into consideration those schools that were kindergarten through sixth grade or kindergarten through eighth.

Organization of the Study

This study is organized into five chapters. Chapter 1 includes the nature of stress problem statement, purpose statement, research questions, delimitations of the study, significance of the study, definitions of terms, along with the organization of the study. Chapter 2 provides a review of the literature related to stress, cost of stress, psychological and social effects of stress, stress categories, occupational stress, principals' roles and responsibilities, stress and administration, coping with stress, North Carolina elementary principals and stress, and summary. Chapter 3 consist design of study, research questions, research design, population and sample, instruments, data collection, method of analysis, limitations, and summary. Chapter 4 reports the analysis of the data and a discussion regarding the findings as they relate to the research questions. Chapter 5

presents the summary, conclusions, and recommendations for future research. The study also contains a bibliography and related appendices.

Chapter 2

Review of Literature

This chapter presents a discussion on the history of stress, effects of stress, occupational stress, the categories of stress, principals' roles and responsibilities, stress and administration, coping strategies. In addition, North Carolina Elementary principals and administrative stress was studies are discussed.

History of Stress

The word "stress" originated from the Latin word "stringere"; meaning to draw tight. In 1936 Hans Selye, a medical student, who is regarded as the leading authority and father of stress research, conducted an experiment with rats and discovered that their reaction was much in the same way as humans in terms of response to various diseases (Selye, 1974). The reactions included bleeding ulcers and the activation of the lymphatic system. Selye termed these events as "stress," which occurred from the reactions.

According to Selye (1974), stress "is the nonspecific response of the body to any demand placed upon it" (p. 14). He also noted that stress had a direct affect on the human body. The definition consists of four physiological parts: (1) stress is a state, also known as a condition of being, (2) stress makes specific changes to the body, (3) stress is caused by various change agents, and (4) stress affects the entire body (Selye, 1974). These physical demonstrations of stress were called "general adaptation syndrome" (Selye, 1974, p. 26). This syndrome proceeds through three stages. The three stages are:

1. The Alarm Phase: The heart rate quickens, blood pressure increases, and muscles tense as the entire body's stress system is mobilized to either

flight or fight reaction. The defense mechanisms are activated for saving oneself in potentially dangerous situations.

2. The Resistance Phase: A person finds means to adapt or to cope with the stressor and to ward off adverse reactions. At this point, he/she either achieves equilibrium or proceeds to the next stage.
3. The Exhaustion Phase: The system responsible for coping with the stressor becomes worn out and breaks down. The body becomes physically and mentally drained, and signs of alarm reaction will appear.
(Selye, 1974, pp. 37-38)

Selye (1974) states that stress is a condition necessary common of life and that there is a positive and negative side of stress. The positive side of stress, called eustress can enhance performance and happiness. Selye identifies stress that causes frustration and damage as “distress” (Selye, 1974).

In a variety of studies stress has been defined in multiple ways of stress. Gmelch (1982) defines stress as “the anticipation of our inability to respond adequately to perceive demand, accompanied by our anticipation of negative consequences for an inadequate response” (p. 84). Volpe (2000) states that stress is anxiety produced with events and responsibilities that exceed a person’s coping abilities. Queen and Queen (2005) define stress as “the sum of biological reactions to any adverse stimulus, mental, or emotional, internal, or external, that tends to disturb, the organisms balance or homeostasis” (p. 6). Cohen, Kessler, and Gordon (1997) believe stress is “a process in which environmental demands tax or exceed the adaptive capacity of the organism, resulting in psychological and biological changes that may place persons at risk for

disease” (p. 3). Greenberg (1988) states that stress results from environmental or internal demands, or both, which overextend an individual’s adaptive resources. Stress is a state manifested by a specific syndrome of biological events induced nonspecifically (Harrison, 1991).

According to Hiebert (1987) stress results from environmental and/or internal demands, which are overextending the adaptive resources of an individual. He also list three different ways to define stress:

1. Different environment situations produce different levels of stress. Stress is seen as a quality of the environment;
2. Personality, intelligence, temperaments, and past experience determine a person’s response to stress. Stress is seen as a person’s response to a stimulus;
3. Particular situations become stressful when the demands upon the individual exceed the perceived ability to meet those demands. Stress is seen as resulting from transactions between the individual and environment. (p. 10)

Social, Psychological, and Economics Effects of Stress

McGrath (1970) explains that the stress phenomenon in the social and psychological realms are massive and pervasive. Both researchers, Selye and McGrath observe stress as an imbalance between the environment and the individual. According to McGrath (1970), "Stress occurs when there is a substantial imbalance between environmental demand and the response capability of the focal organism" (p. 17).

McGrath studied various definitions, which are listed below:

(a) response based definitions, which look at an actor's response to an environmental demand as evidence of stress.

(b) situation based definitions which emphasize "classes of situations involving certain classes of stimulus properties" such as life threatening events (p.13).

(c) organism-environment transactions which are based on changes in the environment eliciting a response specific to that situation. The response then changes the environment.

(d) engineering analogies in which "stress is the application of an external force, while the 'strain' which it produces must be reckoned in terms of the substance to which it is applied" (pp. 13-14).

These analogies describe a collection of interactions that are affected by realities from the environment. Constant stress can place enormous pressure on individuals, which may cause a breakdown of mental stability and collapse, even though the incident itself is insignificant (Buckingham, 2004). McGrath (1970) cited flaws in all of these analogies from the social and psychological perspectives. He analyzed an objective of stress as "a (perceived) substantial imbalance (in either direction) between demand and response capability with resulting adverse consequences" (McGrath, 1970, p. 21). He further explains that stress is a complex transaction between a person and the environment, the interaction does not happen automatically. Perception, analysis, choice, and action are all key elements of the transaction process (McGrath, 1970). According to Buckingham (2004), "Stress is a cyclic process based on a perceived threat and a response to that threat resulting in a change to the individual and the environment" (p.14).

A study conducted by The National Institute for Occupational Safety and Health (NIOSH) reports that 40% of American workers described their job as very or extremely stressful, 26% felt often or very often burned out or stressed out by their work,

and 29% described themselves as quite a bit or extremely stressed at work (NIOSH, 2004). Furthermore, stress is robustly associated with lost work days compare to any other injury or illness; (NIOSH, 2004).

Horgen (1991) who studied stress and health-related problems, reported that stress costs the North America economy 200 billion per year. *The New York Times* reported that:

Workplace stress costs the nation more than \$300 billion each year in health care, missed work and the stress-reduction industry that has grown up to soothe workers and keep production high...The \$300 billion price tag comes from the American Institute of Stress (AIS), which reports that the cost includes: accidents, absenteeism, employee turnover, diminished productivity, direct medical, legal, and insurance costs, workers' compensation awards as well as tort and FELA [Federal Employers' Liability Act] judgments. (September 5, 2004)

Hans Selye (1974), the grandfather of stress, was one of the first researchers to explore the area of stress. He discovered that stress has a definitive role in the development of all diseases. Physicians report stress can lead to serious medical conditions such as: high blood pressure, premature arterial aging, immune system deficiencies, and vitamin and bone density (Volpe, 2000).

Stress is a very costly phenomenon, even with the ultimate price: death. This condition has a wide range of symptoms and an even wider range of outcomes. *WebMD* (2004) has cited and listed some of the adverse affects of stress:

- (1) Forty-three percent of all adults suffer adverse health effects from stress.

(2) Seventy-five to 90% of all doctor's visits are for stress related ailments and complaints.

(3) Stress is linked to six of the leading causes of death: heart disease, lung cancer, lung ailments, accidents, cirrhosis of the liver, and suicide.

(4) The Occupational Safety and Health Administration declared stress a hazard of the workplace. In terms of lost hours due to absenteeism, reduced productivity, and workers' compensation benefits, stress costs American industry more than \$300 billion annually.

(5) The lifetime prevalence of an emotional disorder is more than 50%, often due to chronic, untreated, stress reactions.

Brown and Uehara (2004) are researchers who studied stress in public schools. They found that work related stress accounts for absenteeism among employees, which affects school budgets with regards to the cost of substitutes. Due to recent budget concerns in education; having to provide substitutes to work for employees who have stress related illness will continue to strain budgets in education.

Occupational Stress

Occupational stress is defined as a “physical or psychological disorder associated with an occupational environment and manifested in symptoms such as extreme anxiety, or tension, or cramps, headaches, or digestion problems” (Business Dictionary-online, 2009). Occupational stress has been labeled as an inability to cope with the job related demands and pressures (Rees, 1997). The effects of occupational stress can have profound effects on an individual’s productivity and effectiveness (Vokic & Bogdanic, 2007). Newman and Beehr (1979) defined occupational stress as an “a situation wherein

job related factors interact with the worker to change (disrupt or enhance) his or her psychological and/or physiological condition such that the person (i.e. mind body) is forced to deviate from the normal functioning” (p.20).

Occupational stress is has become one of the most serious health issues in the modern world (Lu, L., Cooper, C., Kao, S., and Zhou, Y., 2003, p. 479). These health issues are partly due to longer number of hours that principals are working to satisfy the workplace demands (Vokic & Bogdanic, 2007). One reason for the high levels of stress is due to jobs with no time limits, they are inclined to experience more stress as to those individuals whose jobs are well defined with specific task and within certain time periods (Thompson, 1985). Thompson (1985) concludes that “building principals fall into the high stress category of persons who are likely to be quite stressed” (p.9). According to Lutton (1988), “middle management is perhaps subjected to a disproportionate share of stress producing circumstances” (p. 41), because it lacks time limits and numerous undefined tasks. Matteson and Ivancevich (1982) stated, due to extensive time spent at work or on career related activities, "negative health consequences of stress are probably experienced more frequently in the work world than anywhere else" (p. 30). These authors reported examples of typical research findings on the relationship among stress, disease, and work, and report that:

1. Forty-five percent of a sample of coronary patients put in more than 60 hours a week on their jobs
2. Reported job stress was associated with high cholesterol level, increased heart rate, and increased smoking

3. Having "responsibility for people" on the job is more likely to lead to heart disease than "having responsibility for things"

4. Executives who were poor delegators had eight times as many ulcers as good delegators

5. Members of high stress occupations have suicide rates two to six times higher than that of the general population. (Matteson & Ivancevich, 1982, p. 36)

According to Everly (1989), "The key to understanding occupational stress and illness depends largely upon an appreciation for a manner in which the needs, expectations, motives, personality, and so on of an individual is matched in a positive, health-promoting manner to the job description he or she is asked to assume (p. 18).

Howley and Pendarvis (2002) cites the changes in policies, as well as new federal and state laws, changing social values, lack of public commitment to education, and loss of job autonomy as factors that have added to the increasing levels of administrators' stress. Lemley (1987) lists behaviors that occur when leaders perceive high degrees of individual stress within an organizational structure. These include:

1. Reducing the amount of time individuals devote to important tasks within their organization.

2. Redefining responsibility in such a way that the individual is no longer willing to recognize authority and is unwilling to take ownership for decisions.

3. Overwhelmed by information, the leader becomes incapable of processing new or different information.

4. Becomes preoccupied with superficial involvement and is unable to recognize the depth of a problem.

5. Displays a defeatist attitude whereby the leader gives up before confronted by a stressful situation.
6. Verbally states negative attitudes regarding any new assignment or idea.
7. Displays detachment so that the individual will not recognize a particular situation for what it is.
8. Frequently wastes valuable time.
9. Inappropriate humor is used outside of the constraints of the situation. Though humor is a strong coping mechanism for stress, using humor outside of the normal bounds expected of the social situation creates more stress for all of the individuals involved.
10. Leaders may begin to hide from responsibility through inappropriate delegation of duties or using others to act as a buffer to the actions. (pp. 135-136)

Work related stress elicits a vast range of undesirable, expensive, and permanent consequences (Ross, 2005). “In organizational setting, stress is nowadays becoming a major contributor to health and performance problems of individuals, and in unwanted occurrences and costs for organizations” (Vokic & Bogdanic, 2007, p. 6). According to Vokic and Bogdanic (2007), there are three main groups of occupational stressors and strains. They are unwanted feelings and behaviors, physiological diseases, and psychological diseases.

- 1) Unwanted feelings and behaviors — such as job dissatisfaction, lower motivation, low employee morale, less organizational commitment, lowered overall quality of work life, absenteeism, turnover, intention to leave the job, lower productivity, decreased quantity and quality of work, inability to make

sound decisions, more theft, sabotage and work stoppage, occupational burnout, alienation, and increased smoking and alcohol intake.

2) Physiological diseases (poor physical health) — such as increased blood pressure and pulse rate, cardiovascular diseases, high cholesterol, high blood sugar, insomnia, headaches, infections, skin problems, suppressed immune system, injuries, and fatigue.

3) Psychological diseases (poor emotional mental health) — psychological distress, depression, anxiousness, passiveness/aggressiveness, boredom, lose of self-confidence and self-esteem, lose of concentration, feelings of futility, impulsiveness and disregarding of social norms and values, dissatisfaction with job and live, losing of contact with reality, and emotional fatigue. (p. 7)

Stress Categories

All human beings have several stress sources, which are commonly known as stressors. According to Gmelch (1982) there are several categories of stress. The categories are:

1. Personal Stressor: This deals with a person's stress that might cause stress to the individual, but not to another person.
2. Interpersonal Stressor: This stress results from relationships.
3. Organizational Stress: This stress is a direct connection to the organization. Factors include size, number of supervisors, rules, work, and job ambiguity.
4. Environmental Stress: This deals with the stress produced by ever changing environment.

5. Private Life Stressor: This stress that derives from outside of one's job and are a direct result of demands that has been placed on time, energy, and commitment by family and friends. (Gmelch, 1982, p. 12)

Gmelch (1982) stress categories were also referred to as levels of stress. Level 1 is Personal Stressors, which contends that the same stress will causes different reactions in different people. According to Gmelch (1982), a person's ability to handle stress is determined by both genetics and personal skill set. This is also reflected by an individual's personality type, which has an effect on personal stressors. He believes that a person who may be considered to have a Type A personality is susceptible to stress-related illness (Gmelch, 1982). According to Wilkins (2000), "Type A personalities are those that have the following characteristics: competitiveness, aggressiveness, impatience, perfectionism, and concern for others' approval...Type B personalities are more relaxed and thus less susceptible to illness related to stress" (p. 112).

Level 2 are Interpersonal Stressors, which are connected by relationships (Gmelch, 1982). Healthy environments are the benefactors of healthy relationships. A study conducted at the "National Aeronautics and Space Administration (NASA) discovered that poor relationships produced low job satisfaction, the feeling of being threatened and psychological stress" (Buss, 2008, p. 36).

Level 3 is Organizational Stressors (Gmelch, 1982). This function handles the relationship between the individual and the position that they hold. There are seven different organizational stressors. The first stressor is work overload, which addresses the discrepancies of employee's work assignment and his or her preparation. Second, is underworked, which is where the individual avoids overwork by doing less.

Underworked tends to lead doubt and dissatisfaction in an employee's work abilities. The third organizational stressor is job ambiguity, where personnel members are left unsure of actually what his or her role or responsibilities are at work. The fourth organizational stressor is organizational structure. This is when the workers are not allowed to share in the decision making process and everything is handed down to them. The fifth organizational stressor is role conflict. This occurs when there is no continuity between what is performed on a daily basis with what is expected. The sixth organizational stressor is managing people. Managers are responsible for numerous things such as: other people, meetings, schedules, interacting with others, complaints, deadlines, submitting reports, and implementing policies. Managing has a constant dependence on others, which include supervisors or subordinates. The last organizational stressor is travel. Whereas the majority of workers live outside of the community in which they work, which leads too many hours spent in the car driving to and from work.

Level 4 is Environmental Stressors (Gmelch, 1982). Since the environment encompass everything we do most people are completely unaware of the direct stress that is place on your person. These elements include the weather with its constant changes, such as: rain, snow, wind, and temperature.

Level 5 is Private Stressors (Gmelch, 1982). The stressors are strictly limited to outside of one's work life. According to Buss (2008), "These pressures permeate from demands placed on time, energy and commitment, by families, friends, community leisure, and other spheres of private life outside the realm of the working world" (p. 37).

Brock and Grady (2004) also placed stress into categories that are similar to Gmelch.

They submit that there are five stress source categories:

1. Survival: The body reacts in a survival mode when health or safety is threatened, when we experience pressure, or when we are faced with an unpleasant or challenging event. Adrenaline is released and the body gears up for either fight or flight.
2. Internally generated stress: We worry about events beyond our control, relationship problems, approaching life in a hurry, being addicted to stress.
3. Environmental stress: It is caused by noise, crowds, pollution climate, and general distractions of the environment.
4. Job stress: It is caused by conditions, expectations, and situations at work.
5. Overwork: We try to achieve too much in too little time; we practice ineffective time management. (p. 28)

Cooper and Marshall (1976) established a framework for analyzing major categories stressors. Their model conceptualize and clarifies an understanding of the sources of occupational stress and the symptoms of ill health that lead to coronary heart disease and mental illness. The five categories are: (a) Factors that intrinsic to the job (b) The individual's role in the in the organization, (c) Opportunities for career development, (d) Relationships within the organization, and (e) Organizational structure and climate (p. 13). Each of these categories interacts with others and is neither mutually exclusive nor independent. When these occupational stressors combine with extra –organizational sources of stress (family problems, life crises, financial difficulties), and certain individual characteristics (level of anxiety level of neuroticism, tolerance for ambiguity,

Type A behavioral pattern), the result can be ill health such as coronary disease or mental health (Cooper & Marshall, 1976).

Principal's Roles and Responsibilities

Roland Barth (1993) wrote in Improving Schools from Within,

Over the years, principals have assumed small discrete additional responsibilities: for the safe passage of children from their homes to school; for ensuring that sidewalks are plowed of snow; for maintaining the physical condition of the building. Responsibilities also include: children's achievement of minimal standards at each grade level; achievement for children with special needs, for the gifted, and for those who are neither; administering tests, trying to ensure that as many children as possible score above average, and reporting these scores to the public. Not one of those responsibilities is backbreaking in itself, but collectively, they present an enormous burden that is capable of sustaining much stress. (p. 7)

According to the National Association of Elementary School Principals (NAESP), until 1960 the typical elementary school principal was a 45-year-old White male who worked 40 hours a week with most of the summer off, had authority for 17% of his budget, and belonged to a principal's association or union (Doud & Keller, 1998).

Principals spent little time in the classroom, functioned more as a manager, and aspired to ascend the career ladder.

In 2006, principals were more diverse culturally, worked longer and extended hours, had greater accountability, and had little time to manage competing demands and constituencies (National Education Association, 2006). The typical principal worked 10 hours a day at school and another 8 hours per week on evenings or weekends. The

principal controlled 26% of the school's budget and spent most of his or her time in three areas: staff supervision, interaction with students, and discipline and student management. The average principal could retire at age 57 and most retired before then or at the retirement age (Quinn & Andrews, 2004).

A school administrator faces multiple numbers of daily challenges due to the role and responsibilities placed upon the leader. In fact, Goodwin, Cunningham, and Childress (2003) article state:

The current role of the principal is all encompassing. In many districts we are faced with inadequate budgets with increased demands. In addition, the pool of applicants for teaching positions is just as serious, for intermediate supervisors, is dwindling. Add to this the increased standards for testing that most states have required, the demands for increased security in the wake of Columbine, 9/11, and now New Bedford. All these issues find their way into the principal's office.

(p. 26)

The nature of the principalship, demands that a principal adhere to many different roles to play that may include that of school nurse, who helps hurt and sick children, and the role of school counselor, who helps students, faculty, and teachers with their emotional needs.

Rayfield and Diamantes (2004) reports the following duties of the principal:

(a) selection of teachers, (b) evaluation of instructional staff, (c) assignment of faculty to courses, (d) leading professional development, (e) development of a master schedule, (f) working to develop a cooperative relationship, (g) enforcement of contract provisions, (h) making the school safe, (i) dealing with

disruptive students, (j) dealing with attendance concerns, (k) working with parents relative to student behavior, (l) curriculum development or alignment, (m) accepting accountability for instructional program, (n) compliance with state mandates, (o) special education supervision, (p) publication of newsletters, (q) attendance at community events, (r) awards recognition programs, (s) budget development, (t) budget management, (u) fundraising, (v) bus coordination, (w) evaluation of supplemental personnel, (x) supervision/attendance at extracurricular activities, and (y) facilities maintenance personnel supervision. (p. 712)

The nature of the work a principal is expected to perform may also provide reasons educational leaders are reluctant to remain building principals.

The National Association for Elementary Principals lists six standards in its list of "What Principals Should Know and Be Able to Do":

- (1) Balance Management and Leadership Roles: Effective principals lead schools in a way that places student and adult learning at the center
- (2) Set High Expectations and Standards: Effective principals set high expectations and standards for the academic and social development of all students and the performance of adults.
- (3) Demand Content and Instruction That Ensure Student Achievement: Effective principals demand content and instruction that ensure student achievement of agreed-upon academic standards.
- (4) Create a Culture of Adult Learning: Effective principals create a culture of continuous learning for adults tied to student learning and other school goals.

(5) Use Multiple Sources of Data as Diagnostic Tools: Effective principals use multiple sources of data as diagnostic tools to assess, identify and apply instructional improvement.

(6) Actively Engage the Community: Effective principals actively engage the community to create shared responsibility for student and school success.

(NAESP, 2001, pp. 5-10)

In addition, the Interstate School Leaders Licensure Consortium (ISLLC) describes two other standards, which were not listed on the NAESP list. The two principles that are essential cornerstones of school administration, as described below:

Standard 3: The school administrator is an educational leader, who promotes the success of all students by ensuring management of the organization, operations, and resources for a safe, efficient, and effective learning environment.

Standard 6: A school administrator is an educational leader who promotes the success of all students by understanding, responding to, and influencing the larger political, social, economic, legal, and cultural context. (Council of Chief State School Officers, 2008, pp. 14-15)

These duties contribute to a principal's stress level, the all-encompassing role of the principal is one reason the job is stressful. According to Queen and Queen (2005), 50% to 75% of principals believe their job as educational leaders at the school level is the most stressful job in education.

Stress and School Administration

In the past 25 years, administrators have had to address increasing demands for special programs, collaborative decision making, and accountability (Howley &

Pendarivis, 2002, p. 2). Stress can come from multiple sources. These sources could include family, work life, private life, environmental conditions, and personal psyche. According to Lindle (2004), These sources and conditions of stress are what make the principalship more challenging and less desirable for educators. Nonetheless, this explains the magnitude and importance of our personal perceptions, especially since each individual has the ability to label the event as positive or negative.

Gmelch and Chan (1994) discuss four main sources of stress for the principal. These sources of stress have also been included in the research of Brock and Grady (2004). The first source of stress discussed by Gmelch and Chan is role-based stress. In role-based stress, stress emanates because the role of the principal is not clearly defined or the principal is given competing roles or incompatible directives. The second source of stress is task-based stress, which surfaces from the activities performed each day. The third source of stress is boundary-spinning stress, which arises from external issues, such as students, parents, and community groups. The last source of stress is conflict-mediating stress, which occurs from an administrator's attempt to resolve differences among students, parent and school conflicts, or staff member's discourse.

Koch, Tung, Gmelch, and Swent (1982) identified four dimensions of administrative stress from their Oregon study of principals: 1) role-based stress, 2) task-based stress, 3) conflict-mediating stress, and 4) boundary-spanning stress. The following descriptions of these dimensions are provided:

1. Role-based stress: pertains to not having enough information to perform the job satisfactorily; inability to cope with conflicting demands; resolving differences with superiors; lack of authority to perform one's duties; lack of

clarity about the nature and responsibilities of one's job and the lack of knowledge of one's superior's evaluation of the administrator's performance.

2. Task-based stress: includes frequent telephone interruptions; supervising a large number of people; high self-expectations; writing notes, memos, and letters; excessive workload for the time available; time consuming meetings; completion of paper work within fixed time schedules, and interruptions by staff members.

3. Conflict-mediating stress: includes trying to solve student problems; trying to resolve parent-school issues, and dealing with problems of school discipline.

4. Boundary-spanning stress: pertains to allocating financial resources; collective bargaining; dealing with official regulations; seeking public support for school funds, and administrative tasks related to contracts. (pp. 3-4)

In 1994, Gmelch and Chan indentified five misconceptions and myths in the area of stress related to school administration. These myths and misconceptions are: “stress is harmful, stress should be avoided, the higher up in the organization the greater the stress, stress is a male-dominated phenomenon, and there is one right way to cope with stress” (pp. 24-25). The first myth has been disputed because there are two type of stress, both eustress and distress, which allows an individual to determine if the stress is going to be positive or negative. As stated earlier by Selye (1974), stress is inevitable, it is a part of our daily lives, and therefore, it is nothing we can do to avoid it. The body needs stress to exist, although, too much negative or positive stress can be harmful. Current research shows that stress affects both males and females equally and there are multiple ways to handle stress (Gmelch & Chan, 1994).

Brimm (1981) studied stress by surveying over 600 Tennessee school administrators using the Administrative Stress Index. The findings for the Tennessee study were consistent with the Oregon study conducted by Gmelch et al. (1982) because they both found administrators having to comply with federal, state, and local policies, while administrative limitations accounted for the greatest source of occupational stress. Cusack (1983) studied Virginia principals by using Administrative Stress Index and found that principals revealed that their jobs were more stressful in every factor except role expectations. The researchers also found that cultural diversity did impact on the stress levels for elementary principals in schools where the proportion of nonwhite students was higher. Mandeville (1984) modified the Administrative Stress Index and categorized the job-related tasks by only three factors: (a) administrative problem-solving, (b) routine management responsibilities, and (c) organizational role expectations. The results of the study stated that administrative problem-solving factor contained seven of the top 10 stressors for principals in South Carolina.

Another study conducted Yaker (1984) surveyed 122 principals using the Administrative Stress Index, and found no relationship between leadership style and administrative stress. Yaker states that cognitive appraisal, prior experiences (successful or unsuccessful), personality, and motivational structure of each subject, would affect his or her awareness of each stressor. Foster (1986) utilized the Administrative Stress Index with Kentucky Principals and found that these administrative constraints as the top three stressors: (a) complying with state, (b) federal, and organizational rules and policies, and (c) feeling that the workload is too heavy. Another source of stress indicated by these principals is their being interrupted frequently by telephone calls.

According to Luzzolino (1986) in Pennsylvania found a significant relationship between high stress levels and principals' unrealistic, self-imposed expectations. The data indicated that work overload and time constraints were significant variables in the principal's work life. A study by Roberson (1986) revealed that Georgia's principals felt successful a majority of the time. The causes of stress, however, for the Georgia principals included time constraints and work overload. In a study involving Williamson and Campbell (1987) the two researchers utilized the ASI to 243 school principals. They found that high school principals have four major stress areas. The factors are: (a) management of time, (b) relations with supervisors, (c) relationship with subordinates, and (d) financial matters. Leary (1987) studied Connecticut public elementary school principals. The investigation involved measurements between perceived stress with the ASI and perceived time management. He found that there was a significant relationship between stress and time management, however, student population and community type, nor per pupil expenditure were found to yield a significantly strong relationship related to stress or time management.

In Maryland, there were 112 elementary and middle school principals who used the Administrative Stress Index (Wright, 1987). The study reported that the number one stressor was the completion of reports and paper work on time. The elementary principals found completing reports paperwork on time, heavy work load, meetings, imposing high expectations, and telephone interruptions, were the most stressful. Middle school principals were stressed by public approval and financial support. Wright (1987) also concluded that three demographic variables produced significant differences, which are: (a) years in administration, (b) size of school, and (c) gender.

Buzzelli-White (1988) used the ASI to measure the sources and levels of stress among 30 principals in Colorado. Her results showed that participants perceived that 71% of their total life stress was attributed to their administrative position. She stated principals perceive they are experienced moderate stress and were handling their stress adequately however, they were not happy with their efforts. She noted principals who worked more hours had significantly higher stress levels. Novice administrators also had significantly higher levels of stress.

Lutton (1988) surveyed 240 elementary school principals in California using the ASI. He analyzed the sources of stress and demographic characteristics. His findings indicated that male and female principals experienced similar amounts of role-based, task-based, boundary-spanning, and conflict-mediating stressors on their jobs. The top stressors were all in task-based category. When principals were not able to get the necessary information to carry out their jobs led to role-based stressors. For boundary-spanning stress, “the number of rules and regulations” was the top stressor and the top conflict-mediating concern that principals perceived was “trying to resolve parent/school conflicts”. He found that principals who are 55 years or older experienced the most on-job stress. He indicated that administrators who had between 11 to 15 years of administrative experience reported the highest stress levels in task-based and boundary-spanning, whereas principals with over 20 years of experience reported the most role-based and conflict-mediating work stress. Larger schools with more than 900 students in their schools experienced the highest levels of stress on the job in all four ASI factors. Harrison (1991) conducted a meta-analysis of 36 studies on stress. The analysis indicated that there is a relationship between stress as perceived by principals and certain

independent variables such as conflict with policies, regulations, and compliance. The common finding was that principals are subject to a wide range of stresses.

Atwood (1996) studied California principals by using the Administrative Stress Index. He found that there was no single cause of stress for principals. The respondents were comfortable with their level of occupational stress. The top stressors on the Administrative Stress Index were: too heavy a workload, meetings took too much time, completion of reports and paperwork, and trying to gain public approval and financial support for school programs.

Gmelch and Torelli (1994) looked at more than 60 studies on the causes and responses to administrator stress. Most researchers have not examined the relationship of stress to role conflict and ambiguity. These researchers sampled 250 Washington State administrators at four levels (elementary, junior high/middle school, high school, and superintendent); they assessed the relationship of role conflict and ambiguity with the administrative stress cycle. They found these conclusions: (a) role conflict and ambiguity contribute specifically to conflict-mediating stress; (b) burnout in administration is associated closely with role structure of administrative positions, and (c) administrators must manage the role conflict and ambiguity in order to filter some of the stress and emotional exhaustion from their occupations (Gmelch & Torelli, 1994, p. 341). They also stated, "Administrators have become 'role prisoners' of an ever expanding set of roles and responsibilities in their position" (p. 351).

Allison (1997) studied coping strategies of 643 principals in British Columbia with their scores on the Administrative Stress Index (ASI) and found that "principals who set realistic goals, approach problems optimistically and objectively, engage in activities

that support spiritual growth, take mini-vacations, and are actively involved in their communities are found to have significantly lower stress scores as shown by the ASI" (p. 49).

Sanchez (1997) studied stressors in 276 elementary principals in California. She used a modified Administrative Stress Index and compared principal experience, age, gender, marital status, number and ages of children in the household, and level of principal's education. The top stressors on the modified Administrative Stress index were: "(1) not having adequate time to think, and reflect, (2) workload that can't be finished during the day, (3) completion of reports and paperwork, and (4) resolving parent/school conflict" (Sanchez, 1997, p. 57). The results for female principals listed significantly higher level of stress on eight items of the Administrative Stress Index. These were according to Sanchez, "frequent interruption by phone calls, participation in job activities outside normal hours, workload that cannot be finished during the work day, administering negotiated contracts (grievances), meetings that take too much time, completing reports and paperwork on time, gaining public approval and financial support, and inadequate time to think and reflect" (p. 69).

Still other studies by Shumate (1999) Roberson (1986), Harrison (1991), and Gmelch and Torelli (1994) provides insight into the principalship and stress. Shumate (1999) surveyed 221 public high school principals in Washington State using the Administrative Stress Index. The results of the Administrative Stress Index indicated that the greatest stressors were "workload, time demands, and dealing with policies" (Shumate, 1999, p. 104).

Later in Oregon, Lane (2000) examined 358 public school principals by using the Administrative Stress Index. The study reported that female principals reported more stress than males in regard to "telephone interruptions, writing memos, making decisions affecting others, too heavy a workload, taking action against an employee, and trying to gain public support" (p. 94).

Coping With Stress

Coping with stress is an individual skill, especially with administrators. According to Gmelch et al. (1982), "These behaviors, whether positive or negative, are considered stress coping behaviors. A coping technique, however, implies a planned or learned response to resolve a stressful situation...a coping strategy is defined as a decision process by which individuals select the most effective technique or series of techniques to reduce stress" (p. 6). What is effective in one setting may not be effective in another setting. School principals therefore must find multiple ways of coping with stress. In order to maintain a healthy body and mind, administrators need to possess a strong knowledge of stress and stress management skills (Harrison, 1991). The current literature shows that many principals use a variety of techniques to cope with stress and coping preferences. Administrators must experiment to find which coping preference works best with each stressful event. Coincidentally, Gmelch and Swent believe that it is essential to study preventative or coping techniques to deal with stress rather than searching for the causes of stress, and explains that "if principals are better equipped to deal with pressures of the job, both their own health and that of their staff members and students will benefit" (p. 9). Gmelch (1977) states that a person ability to cope with stress depends on three elements: (a) time, (b) control, and (c) personal disposition.

Gmelch and Chan (1994) explained that a “Principal Action Plan” is a viable option to control stressors. This plan begins with the identification of the most inhibiting stressor. It is imperative that the stressor be what principals’ feels as if they can have influence over. The next step would be to brainstorm solutions, then pick one, and develop a time line with an evaluation plan. The administrator is responsible for making adjustments and finding potential problems that could cause more stress and limit the success of the solution.

Lazarus (1966) explained there is a relationship between stress, environment, and one's personality. His findings developed two focal ideas: first, cognitive processes determine the quality and intensity of an emotional reaction, and secondly, such processes also underlie coping activities which shape the ways the problem is handled between the person and the environment. Therefore, he suggests that the school principals select their environments to which they must respond. The principal gives high priority to those situations that require immediate attention.

Vetter (1976) explains that a principal's role stress can be reduced by their taking a proactive position in the role relationship. A proactive position requires the principal to build mutual understanding and effective communication in their school. The role of principal is best at implementing change into the relationship to address the demands, thus reducing the level of stress. Vetter indicates that principals as role senders need to delegate responsibility to those making demands; this could also reduce their own personal stress. Having requests made in writing reduces stress for the role sender. According to Vetter (1976), “Metra-prescriptions” or self-evaluation are self monitoring

techniques of principal's behavior and focuses on one's performance which was found to be helpful in the self-improvement process and reducing stress.

In the Gmelch and Swent (1977) study, 75% of the 1,156 Oregon administrators responded to the open-ended question about coping preferences. Swent and Gmelch (1977) divided the activities used to reduce stress into three major categories:

1. Physiological activities included three specific areas: (1) physical exercise or work (athletic activities, gardening, chopping wood, etc.); (2) relaxation, such as meditation and other relaxation techniques; and (3) use of alcohol or drugs.
 2. Cognitive/psychological activities related to positive attitudes and supportive philosophies of life. A wide range of responses occurred including laughter and a sense of humor, taking short breaks during the work day, involvement with students other than in discipline matters, hobbies, travel, and social activities with family and non-school people.
 3. Interpersonal and organizational management skills contained activities related to the utilization of skills which increase one's effectiveness on the job such as time management, conflict resolution, team management, and communication skills. Other responses reported mentioned utilization of colleagues in solving problems, good professional preparations, and the hiring of competent personnel (p. 33). When focusing on the elementary principals of this study, they founded out that over sixty percent of them used physiological stress reduction activities.
- Proctor (cited in Clarke, 1985) described five key factors to coping with stress:
1. Control: The more control we are able to exercise over when and where we will confront stresses in our lives the more likely we are to handle it successfully.

2. Success: "There's an anti-stress affect in success." being successful at what we do blocks stress in many ways. It assures us support at times. A period of stress which leads to a successful outcome is easier to deal with than the same amount of success ending in failure.

3. Satisfaction: The feeling that our work is important also insulates us from stress.

4. Support: Support from family, friends, and co-workers can reduce the stress and help us cope with that which remains.

5. Variety: Too much variety (change) is stressful, but too little induces tedium. Having a comfortable amount of variety in our lives increases our opportunities for success and gives us some place to escape to when other areas are temporarily too stressful. (p. 3)

In another study, Swent and Gmelch (1981) identified four basic coping strategies:

1. Management of Administrative Activities. Principals are advised to keep a time log to analyze how their time is spent. Tasks would then be analyzed to see if they are high or low payoff activities. They would set up a priority order for allocating time.

2. Interpersonal Influence. A principal must have skill to work with others. The administrator's ability to work well with people acts as a stress filter for everyone in the building.

3. Improving Community Relations. Administrators must involve community members in school activities. By keeping the public informed, support for the

school's progress is more likely to be generated. The suggestion is made to market successes just as the business community markets their products.

4. Coping with Rules and Regulations. Principals must be provided with the information they need to be aware of in regard to new laws and regulations. They need to understand how their building will be affected. The goal would be to implement rules that promote educational goals and not to add to the bureaucracy (pp. 16-19).

Sehnert (1981) listed five unstress actions to cope with job distress:

Action 1. Alter one's interpretation of the situation so that it has less importance and is less distressful.

Action 2. Change the circumstances causing the distress.

Action 3. Increase the tolerance for distress through methods like fitness and training, support groups, prayer, faith, and a sense of purpose.

Action 4. Avoid the problem by positive methods such as planning a vacation or temporarily taking a break from the job.

Action 5. Do nothing by allowing other people to share in the responsibility and demands of the job (pp. 90-93).

Mills (1981) conducted a study of elementary principals in Los Angeles the focus was to measure psychological stress and coping techniques. The study results showed that principals confronted the problem or stressor head on, rather than delegating the task. Humor was another successful coping mechanism, which relieved or reduced stress according to the study. A study by Hiebert (1983) explains two actions that can lead to stress reduction: (a) reducing the demand and (b) attempting to change how the person

reacts to the demand. Within these two categories, he suggests “use-as-required” strategies which would include positive self-talk, time management, and problem solving. None of these strategies should require a great deal of commitment or lifestyle change to put into practice. The next action is “use continuously” strategy, which require regular and also involved a high level of commitment. Individuals must alter the relationship and the environment in various ways. School Administrators have the ability to select the environments in which they would like to respond according to this explanation. They can also change their occupational environment by tolerating, avoiding, postponing, escape, deal, or planning (Hiebert, 1983).

Spradling (1984) study addresses the differences for males and females when looking at coping strategies. The collectively utilized coping strategies for both groups that were most useful were: time for non-professional activities, humor, improving perception of self worth, and daily time out from work. The three coping strategies that were least use were: (a) psychotherapy identifying a higher authority as responsible for decisions, (b) occupational change, and (c) lifestyle change. The female principals stated that goal setting, improving perception of self-worth, establishing good and realistic time limits, and utilizing good nutritional habits. Their male counterparts chose: establishing good and realistic time limits, utilizing good nutritional habits, participating in non-professional activities, and setting and adhering priorities.

In Thompson (1985) study, where he focused on North Carolina principals, he indicated that physical exercise was the most utilize coping strategy, and if they did not exercise; they engaged in long term coping mechanism rather than short term coping mechanisms for reducing stress.

Allison (1997) studied coping strategies of principals with their scores on the Coping Preference Scale. He also reports principals with greater stress attempted to cope with stress by working harder, talking to other school administrators, and withdrawing from situations. The data indicated as well that those principals with greater stress "had a more limited repertoire of coping techniques" (p. 52).

Potter (1998) indicates a number of ways to handle stress in the workplace. She suggests relaxation exercises, including breathing, muscle relaxation exercises, using the imagination, music, and the clothes that you wear. Cooper (1988) explored the ways that principals cope with stress. The results of his study yielded seven categories in which the principals coping strategies were grouped.

1. Consultative: Talking with a colleague or friend in education
2. Workaholic: Taking work home at night or on weekends.
3. Eat/Sleep: Altering one's eating or sleeping pattern.
4. Exercise: Running, jogging, aerobics, etc.
5. Time Out: Taking a short break.
6. Recreation/Passive: Thinking about past happy events.
7. Active: Taking an alcoholic drink, delegating, or swearing. (p.86)

Criswell (2007) studied job related stressors and coping skills of principals. The results showed that principals are stressed at work due to failing to complete reports, heavy workload, daily interruptions, and writing memos. Her findings exemplified that the best way to relieve stress is by relying on physical activities and exercise. Principals should do a better job of getting involved in non-work related activities and identify more healthy stress-free coping strategies.

Measuring Coping Preferences

The Roesch Coping Preference Scale was developed to investigate reactions of individuals when dealing with stress and coping techniques to reduce the effect. After an extensive review of the literature, Roesch (1979) developed the instrument at the George Peabody College for Teachers of Vanderbilt University. An accumulated assessment yielded a list of 55 coping preferences. After the factor analysis, the revised instrument was reduced to 23 coping preferences. The new instrument was categorized into seven factor groups.

The seven factors are as follows:

Strategy 1 — Recreational/ Inactive Activities

- a. continues in the same way and hope for the best
- b. plan a vacation
- c. organize a party
- d. thinks about future
- e. thinks happy thoughts of past events
- f. purchase a new item
- g. call a friend
- h. listen to music do volunteer work

Strategy 2 — Consulting Techniques

- a. consult superior
- b. delegate task assignments
- c. discuss concerns with principals in different schools
- d. discuss concerns with colleagues in education

Strategy 3 — Physical Activities

- a. exercise
- b. jog/ run

Strategy 4 — Extra Work Activities

- a. takes work home
- b. work on weekends

Strategy 5 — Proactive Techniques

- a. curse
- b. takes a drink

Strategy 6 —Time Out Techniques

- a. temporary change to a different task
- b. takes a short break

Strategy 7 — Change of Normal Routine

- a. change of sleeping habits
- b. change food intake (Roesch, 1979)

A completed and detailed discussion of the instrument, its reliability and validity and subsequent use has been presented in Chapter 3 since this study will implemented the Roesch Coping Preference Scale.

Roesch (1979) surveyed demographic variables to see how they aligned with coping preferences. She indicated that individuals with high anxiety preferred recreational /passive activities, workaholic activities, proactive techniques, and eat/sleep techniques. Respondents with low anxiety preferred time-out activities. The respondents with the least amount of experienced preferred consultative techniques, and workaholic

activities. Females in this study preferred recreational/passive activities, and eat/sleep activities, whereas the male subjects preferred exercise. Younger (age) subjects favor proactive activities and eat/sleep techniques. Principals who were from larger school districts chose recreational/passive activities for their coping preferences.

Other researchers used the scale and had similar findings. Finaldi (1983) also used the Roesch Coping Preference Scale for measuring principals from Connecticut, the survey results showed that the principals used a variety of coping strategies. In this study the female principals preferred extra-work activities more frequently than their male counterparts. Shumate (1999) surveyed 221 public high school principals in Washington State using the Roesch Coping Preference Scale. The study reported that principals preferred working on the weekends and taking work home as stress reducers.

North Carolina Elementary Principals and Administrative Stress Studies

Thompson (1985) conducted the first study using the North Carolina Elementary Principals and the Administrative Stress Index. His investigation sought to measure job-related stressors of principals and to identify coping techniques used by principals to reduce stress and limit burnout. The results of the study showed that the highest sources of stress were based around task-based roles, which were associated with day-to-day management of school operations. Elementary principals experienced less burnout and stress than their counterparts at the high school. The majority of principals who participated in the study indicated that they engaged in some type of physical activity, which helped to reduce stress. If they did not exercise, principals then would engage in long term coping mechanism more often than short-term coping mechanism for alleviating stress. Thompson also states: "If principals are to be effective, they must be

aware of the factors that cause stress, focus on techniques to facilitate tolerance of stress, and engage in activities to reduce stress” (pp. ii-iii).

A number of other studies on principals in North Carolina were also conducted. Blanks (1990) presented a study that was designed to determine which areas contribute to the stress of principals while performing his or her duties and determining if these principals engage in activities that assist them in coping with stress of the job. The greatest source of stress for the principals studied were task-based activities associated with the daily operation of the school. According to the findings there were no significant differences for varying years of experience. Similarly, there were no significance differences within any of the race cohorts or sizes of schools. The last hypothesis tested indicated that principals, who perceived low-level stress, were the ones who employed long term coping skills.

Welmers (2005) examined the extent to which a relationship exist between North Carolina’s principal demographic constructs of age, gender, years of experience, public school classification, North Carolina ABC’s and federal NCLB program status and dimensions of stress as measured by a modified Administrative Stress Index (ASI). Demographic characteristics were combined with dimensions of stress and analyzed. The findings of the study yield that a relationship does not exist between principals’ perceived stress and the listed demographic constructs. However, a majority of principals indicated reported stress levels to be significantly increased due to implementation of recent reform programs. The conclusion states that principals generally report low to moderate job-related stress levels whereas, high stress levels being reported in areas concerning time management, meeting day to day responsibilities, working with staff, being compared

with other schools, complying with state and federal policies, test scores and feeling that school has failed if scores are not high enough.

Eric Hirsch (2009), Director of Special Projects, at the New Teacher Center conducted a research brief of North Carolina principals' working conditions. Almost 2000 principals participated in the study. The results indicated that 38% of responding principals were within the first three as a principal. About 45% of the principals have been in their current districts for three years or less. Sixty-six percent stated that professional development is sufficient for their school district. The principals, 40%, also stated that site-base management was working and an important part of their job to enhance student achievement.

The current research is focused on measuring the stress levels of North Carolina elementary school principals exclusively. Whereas the other North Carolina surveys (Blanks, 1990, Thompson, 1985, and Welmers, 2005) all addressed all three levels of schools (elementary, middle, and high). This survey will be comparable, which will allow me to replicate partial parts of the previous studies, therefore, this current study will measure job related stressors and how principals cope with those strains.

Summary

This chapter presented a review of the literature on stress and coping strategies and its relationship to elementary principals. There have been many studies completed in the area of stress as related to the principalship. Hans Selye and Walter Gmelch were notable researchers that were referenced throughout this study. The Administrative Stress Index and Roesch Coping Preference Scale are survey instruments designed to measure job-related stress and coping preferences for school administrators, was

described in detail. The literature revealed that principals are experiencing stress in their positions. This stress, as documented by previously cited studies, has been the result of many barriers including administrative constraints, administrative responsibilities, interpersonal relations, interpersonal conflicts, and role expectations (Gmelch, 1994).

The role of the principal has changed significantly over the last several decades, which has led to increased stress levels. The factors that play a major role in the rise in job-related stress include lack of autonomy, declining authority to make needed personnel decisions, federal and state level mandates, lack of public support, decline in parental support, and unrealistic job expectations from superintendents and school boards.

According to the literature there does not appear to be one single way in which principals should handle stress. However, principals who tend to deal with stress more effectively have used multiple coping techniques. It is essential for principals to be cognizant of stressors related to his or her work environment. The knowledge of stress and its potential and fatal effects is essential. Whereas the application of effective coping strategies are imperative when it comes to reducing stress and improving working conditions.

Chapter 3

Methodology

Overview

This chapter focuses on research design, methodology, and instruments. The instruments, Administrative Stress Index (ASI) and Roesch Coping Preference Scale (RCPS), were chosen because they were well supported by a review of the literature which validated both as reliable for use in obtaining the requisite data. The instruments have been used by many researchers and have been proven to be reliable for prevalence in assessing the effects of stress of the principalship and how principals are coping with the pressures and demands of their job. The chapter is divided into five sections: overview, introduction, research design, population and sample, instruments, data collection, data analysis, and summary.

Introduction

An examination of literature on the position of principal clearly shows that the added job responsibilities have increased the amount of stress (Swent & Gmelch, 1978).

The purpose of this study is to investigate the level of stress and their coping preferences among elementary principals. The stress level reactions and coping strategies used by North Carolina elementary principals will be determined in two ways. The study indentified areas of anxiety that are perceived as stressful and have the potential to lead to burnout, if successful coping mechanisms are not employed on a routine basis.

Research Design

The design for this study is descriptive in nature. According to Isaac and Michael (1981), descriptive research allows the researcher to systematically describe the facts and

characteristics of a given population. There was no hypothesis postulated; however, research questions were identified. The survey is designed to allow the participants to give a single response to each question. This is sometimes called a cross-sectional survey or a single shot survey (Orenstein & Phillips, 1978). The researcher deemed this approach as appropriate for the current study due to the participants' perceptions of the factors that influenced their level of stress.

The largest advantages of survey data is the amount of data that can be collected at any given time. This study was guided by the following research questions regarding the level of stress perceived by elementary school principals in North Carolina:

1. What is the mean overall stress index of North Carolina elementary principals on the Administrative Stress Index?
2. What are the major perceived job stressors by elementary school principals in North Carolina as measured by the Administrative Stress Index (ASI)?
3. What are the coping strategies as measured by the Roesch Coping Preference Scale (RCPS) utilized to reduce the level of stress by the elementary school principals in North Carolina?
4. Are there significant differences between the identified coping strategies by the elementary school principals in North Carolina who have more than three years experience compared to the elementary principals who has less than three years?
5. What is the relationship between the level of perceived stress by elementary school principals in North Carolina and selected demographics? The demographic variables are age, ethnicity, level of education, number of years as an elementary school principal, and school location?

6. What is the relationship between the coping preferences by elementary school principals in North Carolina and selected demographics? The demographic variables are age, ethnicity, educational level, number of years as an elementary school principal, and school location?

7. Are Title I principals more stressed than non-Title I principals as measured by the Administrative Stress Index?

To achieve the goal of answering the research questions survey questionnaires were used in data collection. According to Abdul Muthalib (2003), “Quantitative surveys rely on the respondents to self report of their knowledge, perceptions, ideas, opinions, attitudes, and behavior and allow collection of data from a large number of people within a reasonably short time frame” (p. 58).

Population and Sample

The study will be conducted by surveying public elementary school principals in North Carolina who served during the 2009-2010 school year. The population was further restricted to elementary school principals in schools with grade configurations of kindergarten through fifth grades only. During the 2009-2010 school year, there were 1,083 elementary school principals in North Carolina according to, North Carolina Education Directory, provided by the North Carolina Department of Public Instruction (2009). The identifying information such as the principal’s name, school name, and location of the school was kept anonymous to protect the identity of the subjects involved in the study. The sample of this study included 222 participants. The researcher will use a probability sample and conduct a systematic sample within the population. All elementary principals’ email addresses were placed in Microsoft Excel spread sheet.

Instrumentation

The Administrative Stress Index (ASI) was primarily selected for use in this study because it has well known reliability and validity in terms of measuring the sources of stress experienced by education administrators (Gmelch, 1982). Additionally, the ASI has been determined to be a reliable survey in measuring job-related stress. According to Isaac and Michael (1981), "Reliability refers to the accuracy (consistency and stability) of measurement by a test" (p. 134). Test-retest reliability was examined using the Pearson product moment correlation method. Questions were tested and retested after a two-week interval. This resulted in a mean item reliability coefficient of .83 (Gmelch 1982).

According to Gmelch and Chan (1994), the Administrative Stress Index was developed from a couple of sources. One source was the result of when seventy administrators were asked to keep a log book that charted different job related stressors for two weeks, in form of a survey that assessed stressors. Gmelch and Swent field-tested the pilot instrument of the ASI for content validity and clarity. According to Gay and Airasian (2000), "Validity refers to the degree to which an instrument measures what it is intended to measure" (p. 336). The ASI instrument has 35 items with the following 5-point Likert-type scale response: "rarely or never bothers me" (coded 1), "occasionally bothers me" (coded 3), "frequently bothers me" (coded 5), with responses in between. An item that received a high score indicated this area was frequently stressful. A low score meant the item was not stressful or was seldom stressful. The ASI instrument was specifically developed for use with educational administrators (Gmelch, 1982).

The Roesch Coping Preference Scale was developed to investigate reactions of individuals when dealing with stress by Roesch (1979). It consists of a six-point Likert scale to measure all survey items. The scale ranged from "1" (almost never) to "6" (almost always) in the rating of coping preferences. The selection of 55 coping preferences used in the instrument was developed after a review of the literature dealing with stress. The Roesch Coping Preference Scale had content validity due to the extensive study of the literature in investigating coping strategies. The question of content validity is answered when a survey has a strong relationship with the test items and the conclusions to be drawn (Issac & Michael, 1981). There are two major standards for ensuring content validity: (1) a representative collection of items and (2) sensible methods of test construction (Finaldi, 1983). Roesch's extensive research and her close attention to the study of coping strategies, along with the adequate levels of internal consistency are noteworthy indicators of content validity (Finaldi, 1983).

Eighty-seven practicing administrators and graduate students from Vanderbilt University were used in the pilot study. Subscale reliability, test scoring and item analyses were secured through the pilot study. Total item reliability was established at the .86 level. There was no indication of reliability for the seven factor scores. A factor analysis of the 55 items was secured (Roesch, 1979). The factor analysis responsibility is to take a large number of variables and group into smaller clusters (Dawson, 2007). The results of the factor analysis produced 23 items, which grouped into seven factors, all factors extracted significant loadings averaging .5 or better. "Factor loading is the degree of generalizability found between variable and each factor. The greater the distance of

the factor loading from zero, the more generalizations can be made from that factor to the variable” (Roesch, 1979, p. 47). The seven factors are as follows:

Strategy 1 — Recreational Inactive Activities

- a. continues in the same way and hope for the best
- b. plan a vacation
- c. organize a party
- d. thinks about future
- e. thinks happy thoughts of past events
- f. purchase a new item
- g. call a friend
- h. listens to music
- i. do volunteer work

Strategy 2 — Consulting Techniques

- a. consult superior
- b. delegate task assignments
- c. discuss concerns with principals in different schools
- d. discuss concerns with colleagues in education

Strategy 3 — Physical Activities

- a. exercise
- b. jog/ run

Strategy 4 — Extra Work Activities

- a. takes work home
- b. work on weekends

Strategy 5 — Proactive Techniques

- a. curse
- b. takes a drink

Strategy 6 —Time Out Techniques

- a. temporary change to a different task
- b. takes a short break

Strategy 7 — Change of Normal Routine

- a. change of sleeping habits
- b. change food intake (Roesch, 1979)

The Roesch Coping Preference Scale had acceptable construct validity (Roesch, 1979). Construct validity is “determining the degree to which certain explanatory concepts or constructs account for performance on the test” (Issac & Michael, 1981, p.130). The construct validity was established through the factor analysis and factor loading (Roesch, 1979).

The Principal Data Form was designed by the researcher specifically for this study to collect demographic information from elementary principals in North Carolina who participated in the study. The data which were used to correlate with the findings from the instruments included the principal's age, gender, and administrative experience, whether the school is an urban, rural or suburban community, service in district, title I status, years in education, level of education and the school enrollment.

Data Collection

In February 2010, a database was created of email addresses of all elementary principals in North Carolina. Personnel from North Carolina Department of Public

Instruction and the 2009-2010 North Carolina School Directory were used to establish the database. The researcher was able to gain permission from the developer of the Administrative Stress Index to use it as part of this study (see Appendix A) and Roesch granted permission to utilize the Roesch Coping Preference Scale (see Appendix A). The principal who agrees to participate in the study will received both studies, Administrative Stress Index and Roesch Coping Preference Scale. The surveys were distributed, collected, and analyzed through SurveyGizmo.Com, an electronic research survey tool. The website displayed the survey questions in a colorful presentation to create a “user friendly” appearance. The 500 principals that were selected for this survey was contacted by email to notify them of their selection. Principals in this study were asked to log into the website using the link that was provide in the email, beginning on April 23, 2010 and closed-out on May 26, 2010. They were also asked to read the informed consent and to accept terms of the study. Principals were contacted by email first and then again by phone to increase response rate, if they did not response to the initial email. During the course of the study principals were sent reminder emails if they had not completed or finished the survey. There were a total of six principals and one large school district who decided not to have their principals participate in the survey. On May 26, 2010 the survey was complete with 222 surveys.

The benefit of using an on-line survey is to ensure a quick and simplified process of data management and collection, as well as the ability quickly to access the survey and help busy principals. In order to ensure the survey was ready for mass distribution, the researcher utilized a field test to several colleagues across the country. The instruments were used with a small group of administrators who are not elementary school principals

but who are or have been secondary principals or central office administrators. The results of the field test were used to modify the survey.

Data Analysis

According to Bogdan and Biklen (1998), “Analysis involves working with data, organizing them, breaking them into manageable units, synthesizing them, searching them for patterns, discovering what is important and what is to be learned, and deciding what to tell others” (p. 157). The researcher will compile the survey data for both Administrative Stress Index and Roesch Coping Preference Scale through SurveyGizmo.Com and scored on a spreadsheet. Additionally, the Statistical Package for the Social Sciences (SPSS), a software program, will be used to calculate the mean score. Data addressing the research questions was analyzed and constructed into meaningful data categories and patterns. Additionally, the data was divided into three categories: years of experience, school location, and years in district. The first category, years of experience, was divided into three groups: principals who had (1) fewer than three years of principal experience, (2) four to nine years of principal experience, and (3) 10 or more years of principal experience. The second category, school location, was divided into three groups. These three groups were (1) urban, (2) rural, and (3) suburban. The third category was age. This category was divided into four groups. These groups were (1) younger than 35 years, (2) 35-45 years, (3) 46-55 years, and (4) older than 55. The fourth category, years of experience in district, was divided into four groups: principals who had (1) fewer than three years in district, (2) four to six years in district, and (3) seven to nine years in the district, (4) 10 or more years in the district.

The mean and standard deviation was calculated for all the items on both the Administrative Stress Index and Roesch Coping Preference Scale. The top stressors and coping strategies will be listed by top mean scores indicated by the total participant group. Another comparison of the top stressors and overall mean was made for principals who led Title I schools and those who did not lead a Title I school.

A One-Way ANOVA was used to determine if there is a significant difference on each of the items listed on the ASI and Roesch Coping Preference Scale for the categories years of experience and number of students. The ANOVA is designed to determine or predict whether or not the distance between the two means is substantially different from one another and not by chance alone (Turner and Thayer, 2001). The researcher will use an overall mean scores to determine if there is a significance difference with Title I and non-Title I principals.

The independent variables in the study are the demographic variables of principals, such as: years of experience, gender, title I status of school, age, years in school district, and size of school. The dependent variables in the study included the overall stress score, individual stressors, cluster of stress scores as measured by the Administrative Stress Index. The dependent variables also include the coping strategies and coping clusters.

The mean scores and standard deviation were calculated for all the items on both the Administrative Stress Index and Roesch Coping Preference Scale. The top stress producing indicators and coping strategies were listed according to the highest mean scores indicated by principals who participate in the study.

Limitations

This descriptive research study, which is inherently limited to a specific population. The sample that was randomly chosen for this study was limited by the total number of elementary principals in North Carolina. The survey was limited to the participants' willingness to participate and truthfulness of their responses.

Summary

The study describes the Administrative Stress Index and Roesch Coping Preference Scale for assessing the current state of elementary school principals in North Carolina. The population for this study was elementary principals in North Carolina in grades kindergarten through five. An online survey was sent to 500 principals randomly selected from the population. Data from these surveys was analyzed to answer the research questions guiding this study.

Chapter 4

Data Analysis and Finding

Introduction

The contents of this chapter include an analysis of the sample population data and research questions data. The data presented for the sample and each of the seven research questions are reported in narrative and table format. These tables, which will include data from the respondents provide demographic information such as age, gender, total years in education, number of years as a principal, school location, and Title-I status. The means and standard deviations for job related stressors and coping mechanisms as perceived by elementary principals are shown in the tables in this chapter. The chapter concludes with a summary of the findings.

Demographic Data Findings

The study was conducted by surveying public elementary school principals in North Carolina who served during the 2009-2010 school year. The population was further restricted to elementary school principals in schools with grade configurations of kindergarten through fifth grades only. During the 2009-2010 school year, there were 1083 elementary school principals in North Carolina listed in the North Carolina Education Directory (North Carolina Department of Public Instruction, 2009). The sample for this study included 500 participants of which 222 of the elementary principals completed the survey. The response rate of the principals who participated in this survey were 44.4%. The average ages of the principals in the study were from 35-45 years of age (with more than 42%). Out of the 221 respondents, the data indicated that 144 (almost 65%) were female and 77 (almost 35%) were male. The level of education of the

elementary school principals who were sampled varied, 138 (more than 62%) participants had received his or hers Master's degree, and 59 (almost 27%) had an Educational Specialists degree. There was an additional 21 (10%) principals who had a Doctorate degree and 3 (1%) respondents had his or her Bachelor's degree. The majority of principals were new to the position only having served 1-3 years (more than 33%) in the role. Approximately, 87 (39%) principals indicated they work in a suburban environment, 82 (37%) indicated they work in a rural environment, and 53 (24%) indicated they work in an urban environment. The average sizes of the schools that they served were between 300-600 students (almost 50%). The data show that 143 (almost 65%) of the respondents in this study were Title I principals and 78 (almost 35%) were non-Title I principals. The majority of participants had at least 21 years in education (almost 41%). They also severed in his or her district for at least 10 years (more than 60%).

Additional information on the participants is presented in Tables 1 through 9. The information for each table includes the frequencies and percentages of responses. The data in Table 1 indicate the largest percentages of responses were in the 35-45 age groups. The ages were grouped into four different categories by year intervals. The data in Table 2 indicate the largest percentage of participants were female. The data in Table 3 indicate the highest level of education completed, which were Master degrees. The educational degrees were grouped into four different categories by degrees. The number of years the respondents served as elementary schools principals is shown in Table 4. The greatest number of elementary school principals in the sample had between 1 and 3 years of principal experience. The data in Table 5 indicate the largest percentages of responses

were in the suburban location group. The choices were grouped into three different categories by school location. The student enrollment at each principal's elementary school is reported in Table 6. One hundred and nine (49%) principals reported their school enrollment was between 301-600 students. Fifty-nine (27%) indicated their enrollment was between 601 and 800 students. Thirty-five (16%) selected their enrollment was between 300 or fewer students. Sixteen (7%) indicated their enrollment was between 801 and 1,000. Three (1%) principals indicated their enrollment was greater than 1,000 students. The data in Table 7 includes the largest percentages of responses were from Title I principals. The principals were grouped into two different categories, either Title I or Non-Title I. The data in Table 8 indicate principals' with the highest number of years with experience were respondents with 6 -10 years of experience. The years of experience were grouped into four different categories by the number of years. The data in Table 9 indicate principals' with the highest number of years with experience in current school district were respondents with 10 or more years of experience. The years of experience within district were grouped into four different categories by the number of years within the principals' school district. Tables 1 through 9 include a variety of information regarding the demographic data given by the elementary principals who participated in this study.

Demographic Tables

The age of the principals was utilized an independent variable in this study. As indicated in Table 1, the largest percentages of responses were in the 35-45 age groups. All of the participants did reveal their age on the Personal Data Form used for the study. The ages of the principals were grouped into multiple-year intervals.

Table 1

Age of the Principals

Item	Count	%
Younger than 35	16	7.2%
35 – 45	94	42.3%
46 – 55	75	33.8%
Older than 55	37	16.7%

Table 2 contains the gender of the elementary school principals in the study. The collection of 222 respondents' personal data indicated that 145 (65%) were female whereas 77 (35%) were male.

Table 2

Gender of the Principals

Item	Count	%
Female	145	65.3%
Male	77	34.7%

Table 3 includes the level of education of all elementary principals another independent variable in this study. All 222 respondents indicated their level of experience as principals. The greatest number of elementary principals in the sample were Masters' level of education with 139 (62.6%) of respondents.

Table 3

Level of Education of Principals

Item	Count	%
Bachelor	3	1.4%
Masters	139	62.6%
Educational Specialist	59	26.6%
Doctorate	21	9.5%

Table 4 indicates the level of administrative experience as an elementary principal another independent variable in this study. All 222 respondents indicated their level of experience as principals. The greatest number of elementary principals (62.6%) in the sample had between 1 and 3 years of administrative experience.

Table 4

Number of Years of Experience as an Elementary Principal

Item	Count	%
1 – 3	74	33.3%
4 – 6	64	28.8%
7 – 9	34	15.3%
10 or more	50	22.5%

Table 5 indicates the urban, rural, suburban the education environment for each respondent of the survey. Each individual selected which categories best described his or her work environment. Since no definition of urban, rural, or suburban was given by the researcher, the principals responded according to their perception of these categories. The data shows 87 (39.2%) of the principals indicated they work in a suburban environment whereas 82 (36.9%) indicated they work in a rural environment and 53 (23.9%) work in an urban environment. Only one principal did not provide a response in this demographic area.

Table 5

School's Location

Item	Count	%
Suburban	87	39.2%
Rural	82	36.9%
Urban	53	23.9%

Table 6 contains the size of school another independent variable in this study. All 222 respondents indicated the size of their school's enrollment. The greatest number of elementary principals' student enrollment (49.1%) in the sample had between 301-600 students.

Table 6

Size of School

Item	Count	%
300 Students	35	15.8%
301 - 600 Students	109	49.1%
601 - 800 Students	59	26.6%
801 - 1,000 Students	16	7.2%
Greater than 1,000 Students	3	1.4%

Table 7 includes the Title I status of the principal an independent variable in this study. All 222 respondents indicated their level of experience as principals. The greatest numbers of elementary principals (64.9%) in the sample were Title I principals.

Table 7

Title I Status of the Principals

Item	Count	%
Title 1	144	64.9%
Non - Title 1	78	35.1%

Table 8 includes the number of years in education an independent variable in this study. All 222 respondents indicated their level of experience as principals. Since no definition of educational experience was given by the researcher, the principals

responded according to their perception of these categories. The greatest number of elementary principals (40.9%) in the sample had 21 or more years of experience in education.

Table 8

Number of Years in Education

Item	Count	%
6 – 10	30	13.5%
11 – 15	54	24.3%
16 – 20	48	21.6%
21 or more years	90	40.5%

Table 9 contains the level of experience in each principal’s current district another independent variable in this study. All 222 respondents indicated their level of experience within his or her current district. The greatest number of elementary principals (60.4%) in the sample had 10 or more years in their school district.

Table 9

Educational Experience within District

Item	Count	%
0 -3	42	18.9%
4 – 6	21	9.4%
7 – 9	25	11.2%
10 or more	134	60.4%

Research Questions Findings

Research question 1 examined the mean overall stress index of the elementary principals as a group. They responded by selecting 1, 2, 3, 4, or 5 on a 5-point Likert scale, with 1 being "rarely or never bothers me" and 5 being "frequently bothers me" in reference to 35 specific job-related activities. Therefore, for the purposes of this study, the lowest possible overall stress index was 35 and the highest possible overall stress index was 175. Each of the 222 respondents' overall stress indexes were scored by finding the sum of their individual answers on the 5-point Likert scale. Each respondent's sum was divided by 35 to find an individual mean score. The 222 respondents' mean scores were then used to determine an overall mean of 93.01 and standard deviations of 20.54, the results are shown in Table 10.

Table 10

Stress Index of Elementary Principals

Mean Overall Stress Index of Elementary Principals	93.01
Possible Range of Scores	35 to 175
Standard Deviation	20.54

Research Question 2

Research question 2 examined the major perceived job stressors of North Carolina elementary principals as measured by the Administrative Stress Index. On the 5-point Likert scale used for the Administrative Stress Index, a score above 3.5 indicated "usually bothered to almost always." The criteria of 3.5 were used to ensure that this stressor occurred more than 50% of the time.

North Carolina elementary school principals' top five identified sources of stresses had mean scores ranging from 3.63 to 3.31. These items were: (1) feeling that I have too heavy a work load, one that I cannot possibly finish during the normal work day with 117 respondents and 52.3% responding with a "4" or "5"; (2) feeling that meetings take up too much time with 111 and 49.6% responding with a "4" or "5"; (3) Trying to complete reports and other paperwork on time with 106 respondents and 47.3% responding with a "4" or "5"; (4) having my work interrupted frequently by staff members who want to talk with 91 respondents and 40.6% responding with a "4" or "5"; and (5) supervising and coordinating the task of many people with 98 respondents 43.8% responding with a "4" or "5".

Table 11

Administrative Stress Index for Elementary Principals (N=222)

Stressors	N	Range	Min.	Max.	Sum	Mean	Std. Deviation
Feeling that I have too heavy workload one that I could not possibly finish during the normal work day	222	5.00	.00	5.00	806.00	3.6306	1.12502
Feeling that meetings take up too much time	222	4.00	1.00	5.00	805.00	3.6261	1.01564
Trying to complete reports and other paperwork on time	222	4.00	1.00	5.00	779.00	3.5090	.98284
Having my work interrupted frequently by staff members who want to talk	222	5.00	.00	5.00	737.00	3.3198	1.05567
Supervising and coordinating the task of many people	222	5.00	.00	5.00	736.00	3.3153	1.10517
Having to make decisions that affect the lives of individual people that I know colleague staff friends students etc	222	4.00	1.00	5.00	733.00	3.3018	1.03508
Evaluating staff performance	222	4.00	1.00	5.00	728.00	3.2793	1.11080
Trying to resolve parent school conflict	222	4.00	1.00	5.00	709.00	3.1937	.98098
Complying with federal state district and organizational rules and policies	222	5.00	.00	5.00	709.00	3.1937	1.16641
Being interrupted frequently by telephone calls	222	4.00	1.00	5.00	704.00	3.1712	.98747

(table continues)

Table 11

Administrative Stress Index for Elementary Principals (N=222)

Stressors	N	Range	Min.	Max.	Sum	Mean	Std. Deviation
Writing memos letters and other communications	222	5.00	.00	5.00	699.00	3.1486	1.01592
Feeling that I have to participate in school activities outside the normal working hours at the expense of my personal time	222	5.00	.00	5.00	695.00	3.1306	1.12803
Preparing and allocating budget resources	222	5.00	.00	5.00	670.00	3.0180	.99303
Trying to resolve differences between among staff members	222	5.00	.00	5.00	666.00	3.0000	1.02899
Imposing excessively high expectations on me	222	4.00	1.00	5.00	660.00	2.9730	1.22167
Trying to gain public approval and financial support for school programs	222	5.00	.00	5.00	646.00	2.9099	1.23706
Feeling that the progress on my job is not what it should or could be	222	4.00	1.00	5.00	643.00	2.8964	1.04777
Feeling that I have too much responsibility delegated to me	222	5.00	.00	5.00	637.00	2.8694	1.13203
Feeling staff members don't understand my goals and expectations	222	4.00	1.00	5.00	626.00	2.8198	.99044

(table continues)

Table 11

Administrative Stress Index for Elementary Principals (N=222)

Stressors	N	Range	Min.	Max.	Sum	Mean	Std. Deviation
Attempting to meet social expectations community friends colleagues	222	5.00	.00	5.00	619.00	2.7883	1.19017
Thinking that I will not be able to satisfy the conflicting demands of those who have authority over me	222	4.00	1.00	5.00	617.00	2.7793	1.15767
Knowing that I can't get information needed to carry out my job properly i e Red Tape	222	4.00	1.00	5.00	610.00	2.7477	1.05048
Handling student discipline problems	222	5.00	.00	5.00	603.00	2.7162	1.04019
Trying to resolve differences among students	222	5.00	.00	5.00	589.00	2.6532	1.12619
Feeling that I have too little authority to carry out responsibilities assigned to me	222	5.00	.00	5.00	566.00	2.5495	1.16307
Feeling pressure for better job performance above what I think is reasonable	222	5.00	.00	5.00	561.00	2.5270	1.25366
Not knowing what my superior thinks of me or how he she evaluates my performance	222	5.00	.00	5.00	556.00	2.5045	1.30001
Speaking in front of groups	222	5.00	.00	5.00	539.00	2.4279	1.27337
Trying to influence my immediate supervisors actions and decisions that affect me	222	5.00	.00	5.00	518.00	2.3333	1.16381

(table continues)

Table 11

Administrative Stress Index for Elementary Principals (N=222)

Stressors	N	Range	Min.	Max.	Sum	Mean	Std. Deviation
Being unclear on just what the scope and responsibilities of my job are	222	5.00	.00	5.00	469.00	2.1126	1.24433
Feeling that I am not fully qualified	222	5.00	.00	5.00	453.00	2.0405	1.03477
Trying to resolve differences with my superiors	222	5.00	.00	5.00	426.00	1.9189	1.16227
Feeling not enough is expected of me by my superiors	222	5.00	.00	5.00	371.00	1.6712	1.11143
Administering the negotiated contract grievances interpretations etc	222	5.00	.00	5.00	360.00	1.6216	1.45866
Being involved in collective bargaining process	222	5.00	.00	5.00	342.00	1.5405	1.50284

Table 12 contains stressor categories; the groups of questions derive from the Administrative Index. The top stressor category was Administrative Constraints, which includes stressors related to pressures of time, meetings, workload, and compliances with provincial and district policies. The least stressful category according the survey was the Role Expectation, which refers to stressors associated with differences in the expectations of self and the expectations of the various groups to which administrators must respond. The questions associated with each category are listed in Appendix C. North Carolina elementary school principals' top identified stress categories had mean scores that ranged from 3.3 to 2.5.

Table 12

Administrative Stress Index Stressors Categories

Stressor Category	Mean Score	Possible Range	Standard Deviation
Administrative Constraints	3.3	7-35	.72
Administrative Responsibility	2.5	8-40	.80
Interpersonal Relations	2.6	6-30	.72
Intrapersonal Conflicts	2.9	7-35	.74
Role Exceptions	2.6	7-35	.80

Research Question 3

Research question 3 was answered by having the principals respond to the 21 item Roesch Coping Preference Scale. The main purpose of question three was to determine the most often used coping preference to reduce stress of North Carolina elementary principal. The respondents were requested to indicate their coping strategies based on a 6-point Likert-type rating scale, ranging from 1 (almost never) to 6 (almost always).

Table 13 identifies the rank order, mean score and standard deviation of each of the 21 coping preferences listed on the questionnaire. Upon examining the principals' responses, the coping preferences ranged from a high mean of 4.65 for "take work home" to a low mean of 2.00 on the coping strategy of "organize a party". Other highly ranked coping strategies include "work on weekends"; "discuss concerns with other principals and other colleagues"; "listen to music"; and "think about future". Table 13 indicates North Carolina elementary school principals' top five identified coping preferences had mean scores that ranged from 4.66 to 4.23.

Table 13

Descriptive Statistics for Coping Preferences (N=222)

	N	Minimum	Maximum	Mean	Std. Deviation
Take work home	222	1.00	6.00	4.6577	1.53095
Work on weekends	222	1.00	6.00	4.6171	1.45903
Discuss concerns with colleagues/other principals	222	1.00	6.00	4.4234	1.21863
Listen to music	222	1.00	6.00	4.3919	1.49646
Think about future	222	1.00	6.00	4.2297	1.32720
Delegate task assignments	222	2.00	6.00	4.1351	1.13350
Temporarily focus on a different task	222	1.00	6.00	4.0045	1.19387
Call a friend	222	1.00	6.00	3.9595	1.60688
Exercise	222	1.00	6.00	3.7342	1.57371
Think happy thoughts of past	222	1.00	6.00	3.7207	1.47173
Change food intake	222	1.00	6.00	3.6036	1.59058
Take a short break	222	1.00	6.00	3.4144	1.56297
Change sleeping habits	222	1.00	6.00	3.4054	1.56534
Consult superior	222	1.00	6.00	3.3784	1.44619
Continue in the same way and hope for the best	222	1.00	6.00	3.3018	1.49324
Purchase new items	222	1.00	6.00	3.0946	1.53837
Run jog	222	1.00	6.00	3.0541	1.66865

(table continues)

Table 13

Descriptive Statistics for Coping Preferences (N=222)

	N	Minimum	Maximum	Mean	Std. Deviation
Curse	222	1.00	6.00	2.7342	1.71673
Do volunteer work	222	1.00	6.00	2.5991	1.47271
Take a drink smoke	222	1.00	6.00	2.1216	1.51869
Organize a party	222	1.00	6.00	2.0090	1.37525

Data collected from the Roesch Coping Preference Scale grouped into seven categories; "recreational/inactive activities", "consulting techniques", "physical activities", "extra work activities", "proactive techniques", "time out techniques" and "change of normal routine". These categories are listed below in Table 14.

Table 14 provides a comparison of the mean response and standard deviation for each strategy. The coping preference strategies ranged from a high mean of 4.66 for "Extra Work Activities" to a low mean of 2.4 for "Proactive Techniques". "Extra Work Activities" include activities like taking work home and working on the weekends. "Time-Out Techniques" and "Consulting Techniques" were the next preferred coping strategies reported by the principals in this study.

Elementary school principals identified a variety of coping preferences on the Roesch Coping Preference Scale. Eleven of the 21 items had mean scores above the midpoint of 3.50. "Taking work home" had 135 respondents (60.3%), "working on the weekends" had 139 respondents (62%), and "discussing concerns with other colleagues

in education” had 124 respondents (55.4%), “listen to music” had 124 respondents (55.3%), “think about future” had 108 respondents (48.2%), “delegate task assignments” had 91 respondents (40.7%) , and “temporarily focus on a different task” had 87 respondents (38.8%) were the top coping preferences for this study and had respondents answering with a 5 or a 6 (almost always). The seven previously listed coping preferences also have a mean score above 4.0. The standard deviations indicated a spread of score for 68% of the participants to be between 2.81 and 6 on the Likert scale. The standard deviations for nine of the 21 items were above 1.5 or higher. The higher standard deviation scores indicated a greater variance or spread of responses. The standard deviations for many of the responses indicated the range of mean score was spread out along the Likert scale. Table 14 indicates that North Carolina elementary school principals’ top identified coping factor was “Extra-Work Activities” which had mean score of 4.6 and the least utilized coping factor was “Proactive Techniques” which has a mean score of 2.4.

Title 14

Roesch Coping Preference Scale Factors

Factor	Mean Score	Possible Range	Standard Deviation
Factor 1 – Recreational/ Inactive Activities	3.3	9-54	.82
Factor 2 – Consulting Techniques	3.9	4-24	.98
Factor 3 – Physical Activities	3.4	2-12	1.5
Factor 4 – Extra – Work Activities	4.6	2-12	1.4
Factor 5 – Proactive Techniques	2.4	2-12	1.4
Factor 6 – Time – Out Techniques	4.21	2-12	.96
Factor 7 – Change of Normal Routine	3.5	2-12	1.34

Research Question 4

Research question 4 is responsible for determining if there significant differences between the indentified coping strategies by principals who have more than three years experience compared to the principals who has less than three years. The comparison of the coping preferences of North Carolina elementary school principals who have been in the job for less than three years and those principals who had been on the job for more than three years did not reveal significant differences as indicated in Table 15. One-way Analysis of Variance (ANOVA) test determined no significant differences among years as a principal when groups in ranges of 0-3, 4-6, 7-9, and 10 or more. Within the groups of experience for principals, an F-ratio of 0.523 and a probability level of 0.667. The equal variance test was completed, which passed ($p = .718$). The test of normality was

successful at $p = .330$. The results of the ANOVA as compared to North Carolina elementary school principals' is shown in Table 15.

Table 15

Analysis of Variance of Coping Preferences by Years as Principal

Years as principals	N	Missing	M	SD	SEM
1-3	74	0	75.176	13.815	1.606
4-6	64	0	75.359	14.240	1.780
7-9	34	0	75.059	14.985	2.570
10 or more	50	0	72.420	13.126	1.856

Source of Variation	DF	SS	MS	F	P
Between Groups	3	306.185	102.062	0.523	0.667
Residual	218	42559.513	195.227		
Total	221	42865.698			

Research Question 5

Research question 5 examined the stress level of principals as measured by four selected independent variables on the Administrative Stress Index. Table 16 indicates the influence of perceived stress on the certain demographic variables such as: number of years as an elementary school principal, school location, number of years within the school district, and age. The first decision in selecting an appropriate test of significance is whether a parametric or nonparametric test must be selected. A parametric test is to be

used when the variable measured has a normal distribution, the data represents an interval or ratio scale of measurement, and the participants are independent (S. Brown, personal communication June 1, 2010). A nonparametric test is to be used when samples selected from populations are not distributed normally or the actual distribution is unknown. (S. Brown, personal communication June 1, 2010). The researcher used two tests to determine if there was a normal distribution and determine the use of parametric or nonparametric tests.

The first category was measuring how long an individual has been a principal in North Carolina. The four groups in the years of experience category are the 0-3, 4-6, 7-9, and 10 or more. This table lists the total scores for stressors as measured by the Administrative Stress Index. The One-Way ANOVA was used to test the differences among the four groups of years in the area of experience of principals. The equal variance test was completed, which passed ($p = .953$). The test of Normality was successful at $p = .173$. When the probability level was set at 5% or less, there was no significant difference among the four groups of years. The p value was .732, which is greater than the .05. The results of the ANOVA as compared to North Carolina elementary school principals' years of experience are shown in table 16.

Table 16

Analysis of Variance of Stress Levels by Years as Principal

Years as principals	N	Missing	M	SD	SEM
1-3	74	0	94.635	21.204	2.465
4-6	64	0	92.328	18.980	2.373
7-9	34	0	94.235	21.292	3.651
10 or more	50	0	90.680	21.297	3.012

Source of Variation	DF	SS	MS	F	P
Between Groups	3	547.672	182.557	0.429	0.732
Residual	218	92702.256	425.240		
Total	221	93249.928			

The second category researched was the location of schools. There were three groups in the location category. The groups were suburban, rural, and urban. Table 17 indicated the results regarding the significant differences perceived by principals according to the location of the schools. The One-Way ANOVA was used to test the differences among the three groups of school locations. The equal variance test was completed, which passed ($p = .336$). The test of Normality was successful at $p = .099$. When the probability level was set at 5 percent or less, there was no significant difference among the three groups of school location. The p value was .481, which is greater than the .05. The results of the ANOVA as compared to North Carolina elementary school principals' school location are shown in Table 17.

Table 17

Analysis of Variance of Stress Levels by School Location

School Locations	N	Missing	M	SD	SEM
Suburban	87	0	93.460	22.520	2.414
Rural	82	0	91.049	19.475	2.151
Urban	53	0	95.340	18.755	2.576

Source of Variation	DF	SS	MS	F	P
Between Groups	2	620.627	310.314	0.734	0.481
Residual	219	92629.301	422.965		
Total	221	93249.928			

A One-Way Analysis of Variance was used to determine if there were significant differences among the number of years a principal has worked in a particular district. The test did yield significant results for the relationship of principals who had been in a district for 7-9 years and between a principal who had been working for 10 or more years within the same district. The Pairwise Multiple Comparison Procedures (Holm-Sidak's Method) was used to determine the differences among groups. The equal variance test was completed, which passed ($p = .491$). The test of normality was successful at $p = .522$. Within the category of years serving in the district, an F -ratio of 4.398 was produced. When the probability level was set at 5% or less, there was one significant difference among the four groups of years. The p value was .005, which is less than the .05. The

results of the ANOVA as compared to North Carolina elementary school principals' years of experience within current school district are shown in Table 18.

Table 18

Analysis of Variance of Stress Levels by Years in District

Years in District	N	Missing	M	SD	SEM
0-3	42	0	78.452	13.457	2.076
4-6	21	0	73.333	12.269	2.677
7-9	25	0	81.240	15.169	3.034
10 or more	34	0	72.336	13.562	1.172

Source of Variation	DF	SS	MS	F	P
Between Groups	3	2446.179	815.393	4.398	0.005
Residual	218	40419.519	185.411		
Total	221	42865.698			

Table 18

Analysis of Variance of Stress Levels by Years in District

Comparisons for Factor: Years in District

Comparison	Diff of Means	T	Unadjusted P	Critical Level	Significant
7-9 vs. 10 or more	8.904	3.002	0.00300	0.009	Yes
0-3 vs. 10 or more	6.117	2.540	0.0118	0.010	No
7-9 vs. 4-6	7.907	1.962	0.0511	0.013	No
03- vs. 4-6	5.119	1.407	0.161	0.017	No
7-9 vs. 0-3	2.788	0.810	0.419	0.025	No
4-6 vs. 10 or more	0.998	0.312	0.755	0.050	No

The One-way ANOVA was used for addressing the age category of principals completing the ASI in this study. The four groups in the age category are younger than 35, 35-45 years of age, 46-55 years of age, and older than 55. Table 19 lists the total scores for stressors as measured by the Administrative Stress Index. The One-Way ANOVA was used to test the differences among the four groups of ages of principals. The equal variance test was completed, which passed ($p = .775$). The test of normality was successful at $p = .387$. When the probability level was set at 5 percent or less, there was no significant difference among the four groups of years. The p value was .36, which is greater than the .05, within the category of ages, an F-ratio of 1.064 was

produced. The results of the ANOVA as compared to North Carolina elementary school principals' age are shown in Table 19.

Table 19

Analysis of Variance of Stress Levels by Principal's Age

Principal's Age	N	Missing	M	SD	SEM
Younger than 35	16	0	94.813	23.721	5.930
35-45	94	0	95.372	19.974	2.060
46-55	75	0	91.760	19.938	2.302
Older than 55	37	0	88.811	21.696	3.567

Source of Variation	DF	SS	MS	F	P
Between Groups	3	1346.167	448.722	1.064	0.365
Residual	218	91903.761	421.577		
Total	221	93249.928			

Research Question 6

Research question 6 examined the coping preferences of elementary school principals and selected demographics such as: number of years as an elementary school principal, school location, number of years within the school district, and age. Spearman Rank Order correlation coefficients were computed to determine the relationship, if any, between the principals response to the Roesch Coping Preference Scale and four demographic variables. Spearman's Rank Order correlation can range from -1 to +1. No other value is possible. A value of zero (0.0) indicates that the variables are not related or

perhaps more complex or nonlinear relationships. Values close to -1 or +1 indicate strong predicative relationships.

Spearman's rank order correlations were computed in Table 20, yields a significant correlations found between the Roesch Coping Preference Scale and demographic variables of age, years as principal, years within current district, and school location. The results of the Spearman's Rho as compared to North Carolina elementary school principals' years of experience, age, school location, and number of years within school district are shown in Table 20. Table 20 consists of 11 significant correlations between the coping preferences and the demographic variables on the Roesch Coping Preference Scale. The variable "age" had a strong association with the coping strategies of "run/jog", "discuss concerns with other principals", and "curse". The variable "location of schools" had a strong association with the coping strategies of "organize a party". The variable "years in district" had a strong association with the coping strategies of "taking a short break", "taking a drink or smoke", "call a friend", "focus on a different task", "curse", and "listening to music". The variable "years as principal" had a strong association with the coping strategies of "discuss concerns with other principals".

Table 20

Correlations

			Years in District	Location	Age	Years as Principal
Spearman's rho	Change food intake	Correlation Coefficient	.062	.104	.014	.070
		Sig. (2-tailed)	.354	.123	.832	.297
		N	222	222	222	222
	Take a short break	Correlation Coefficient	-.176**	-.006	-.125	-.055
		Sig. (2-tailed)	.009	.933	.062	.411
		N	222	222	222	222
	Take a drink smoke	Correlation Coefficient	-.242**	.017	-.102	-.046
		Sig. (2-tailed)	.000	.802	.130	.491
		N	222	222	222	222
	Work on weekends	Correlation Coefficient	-.048	-.011	-.035	-.052
		Sig. (2-tailed)	.472	.867	.601	.437
		N	222	222	222	222
	Run jog	Correlation Coefficient	-.073	.118	-.169*	-.068
		Sig. (2-tailed)	.280	.080	.012	.317
		N	222	222	222	222

(table continues)

Table 20

Correlations

		Years in District	Location	Age	Years as Principal
Discuss concerns with colleagues other principals	Correlation Coefficient	-.115	-.060	-.142*	-.146*
	Sig. (2-tailed)	.088	.377	.035	.030
	N	222	222	222	222
Consult superior	Correlation Coefficient	-.126	.022	.030	-.074
	Sig. (2-tailed)	.061	.746	.661	.270
	N	222	222	222	222
Do volunteer work	Correlation Coefficient	-.099	-.028	-.116	-.008
	Sig. (2-tailed)	.140	.682	.086	.910
	N	222	222	222	222
Call a friend	Correlation Coefficient	-.175**	.096	-.051	-.072
	Sig. (2-tailed)	.009	.154	.450	.285
	N	222	222	222	222
Think happy thoughts of past	Correlation Coefficient	-.111	.030	-.006	.006
	Sig. (2-tailed)	.100	.656	.935	.929
	N	222	222	222	222

(table continues)

Table 20

Correlations

		Years in District	Location	Age	Years as Principal
Organize a party	Correlation Coefficient	-.052	.139*	-.089	-.025
	Sig. (2-tailed)	.436	.038	.186	.714
	N	222	222	222	222
Continue in the same way and hope for the best	Correlation Coefficient	.004	.004	-.064	.029
	Sig. (2-tailed)	.950	.953	.345	.668
	N	222	222	222	222
Change sleeping habits	Correlation Coefficient	.017	.023	-.078	-.066
	Sig. (2-tailed)	.802	.732	.244	.326
	N	222	222	222	222
Temporarily focus on a different task	Correlation Coefficient	-.161*	-.027	.018	-.012
	Sig. (2-tailed)	.016	.692	.790	.863
	N	222	222	222	222
Curse	Correlation Coefficient	-.174**	-.001	-.140*	-.085
	Sig. (2-tailed)	.009	.991	.037	.206
	N	222	222	222	222

(table continues)

Table 20

Correlations

		Years in District	Location	Age	Years as Principal
Take work home	Correlation Coefficient	.028	.108	.036	.000
	Sig. (2-tailed)	.680	.110	.591	.995
	N	222	222	222	222
Exercise	Correlation Coefficient	-.079	.043	-.057	-.012
	Sig. (2-tailed)	.243	.520	.401	.858
	N	222	222	222	222
Delegate task assignments	Correlation Coefficient	-.126	.111	-.050	-.023
	Sig. (2-tailed)	.061	.100	.456	.736
	N	222	222	222	222
Think about future	Correlation Coefficient	-.002	.095	-.026	-.019
	Sig. (2-tailed)	.981	.157	.699	.776
	N	222	222	222	222

(table continues)

Table 20

Correlations

		Years in District	Location	Age	Years as Principal
Purchase new items	Correlation Coefficient	.032	.109	-.031	-.020
	Sig. (2-tailed)	.636	.105	.644	.765
	N	222	222	222	222
Listen to music	Correlation Coefficient	-.229**	.092	-.072	-.008
	Sig. (2-tailed)	.001	.171	.287	.911
	N	222	222	222	222

Research question 7

Research question 7 answered the question of whether Title I principals were more stressed than Non-Title I principals. Data was collected from the ASI which reported; the mean and standard deviation for each category in the research question were calculated. Table 11 indicates the overall results calculated from all 222 principals. The mean was determined by averaging the individual ASI responses on the 5-point Likert scale. A marked number 1 on the Likert scale indicated that the item never caused stress; 2 indicated rarely, 3 and 4 indicated occasionally, and a 5 indicated frequently. The results of the overall perceived stress levels and stress categories of North Carolina elementary school principals', which indicate that Title I principals are perceived a higher

stress level than their counterparts who are Non-Title I principals the results are shown in Tables 21 and 22.

Table 21

Non-Title I Schools (N = 78)

Stress Index of Non-Title I Elementary Principals	
Overall Mean Overall Stress Index	95.35
Possible Range of Scores	35 to 175
Standard Deviation	25.14

Table 22

Administrative Stress Index Stressors Category Non – Title I Schools

Stressor	Mean Score	Possible Range	Standard Deviation
Administrative Constraints	3.3	7-35	.76
Administrative Responsibility	2.5	8-40	.88
Interpersonal Relations	2.6	6-30	.77
Intrapersonal Conflicts	2.7	7-35	.75
Role Exceptions	2.5	7-35	.86

Table 11 lists the results indicated by non-Title I principals. One stressor was designated by this group of principals with a mean score of 3.5 or higher. The stressor listed was "feeling that meetings take up too much time". Table 22 shows the results indicated by principals who lead Non-Title I schools. Table 22 indicates one stressor that had a mean score of 3.5 or higher with Non-Title I principals.

Table 23

Descriptive Statistics for Non-Title I Principals (N = 78)

	N	Range	Min.	Max.	Mean	Std. Deviation
Feeling that meetings take up too much time	78	4.00	1.00	5.00	3.6026	1.02361
Feeling that I have too heavy workload one that I could not possibly finish during the normal work day	78	5.00	.00	5.00	3.4872	1.18150
Trying to complete reports and other paperwork on time	78	4.00	1.00	5.00	3.4359	1.05177
Having my work interrupted frequently by staff members who want to talk	78	5.00	.00	5.00	3.2949	1.12941
Evaluating staff performance	78	4.00	1.00	5.00	3.1923	1.14026
Supervising and coordinating the task of many people	78	5.00	.00	5.00	3.1282	1.12075
Feeling that I have to participate in school activities outside the normal working hours at the expense of my personal time	78	4.00	1.00	5.00	3.1282	.99817
Trying to resolve parent school conflict	78	4.00	1.00	5.00	3.1282	1.04892

(table continues)

Table 23

Descriptive Statistics for Non-Title I Principals (N = 78)

	N	Range	Min.	Max.	Mean	Std. Deviation
Having to make decisions that affect the lives of individual people that I know colleague staff friends students etc	78	4.00	1.00	5.00	3.1282	1.07340
Being interrupted frequently by telephone calls	78	4.00	1.00	5.00	3.1026	1.12342
Writing memos letters and other communications	78	4.00	1.00	5.00	3.0513	.95206
Complying with federal state district and organizational rules and policies	78	5.00	.00	5.00	3.0128	1.13382
Imposing excessively high expectations on me	78	4.00	1.00	5.00	2.9615	1.15593
Trying to resolve differences between among staff members	78	4.00	1.00	5.00	2.8846	1.00622
Feeling that I have too much responsibility delegated to me	78	5.00	.00	5.00	2.8590	1.21382
Trying to gain public approval and financial support for school programs	78	5.00	.00	5.00	2.8590	1.21382

(table continues)

Table 23

Descriptive Statistics for Non-Title I Principals (N = 78)

	N	Range	Min.	Max.	Mean	Std. Deviation
Feeling that the progress on my job is not what it should or could be	78	4.00	1.00	5.00	2.8462	1.10579
Preparing and allocating budget resources	78	5.00	.00	5.00	2.8205	1.01602
Feeling staff members don't understand my goals and expectations	78	4.00	1.00	5.00	2.7949	1.04892
Knowing that I can't get information needed to carry out my job properly i.e. Red Tape	78	4.00	1.00	5.00	2.7821	.93486
Attempting to meet social expectations community friends colleagues	78	5.00	.00	5.00	2.6795	1.15650
Thinking that I will not be able to satisfy the conflicting demands of those who have authority over me	78	4.00	1.00	5.00	2.6795	1.15650
Handling student discipline problems	78	5.00	.00	5.00	2.5385	1.00249

(table continues)

Table 23

Descriptive Statistics for Non-Title I Principals (N = 78)

	N	Range	Min.	Max.	Mean	Std. Deviation
Feeling that I have too little authority to carry out responsibilities assigned to me	78	5.00	.00	5.00	2.5256	1.24550
Trying to resolve differences among students	78	5.00	.00	5.00	2.4487	1.12409
Not knowing what my superior thinks of me or how he/she evaluates performance	78	5.00	.00	5.00	2.4231	1.30453
Feeling pressure for better job performance above what I think is reasonable	78	5.00	.00	5.00	2.4231	1.22230
Speaking in front of groups	78	5.00	.00	5.00	2.3333	1.29601
Being unclear on just what the scope and responsibilities of my job are	78	5.00	.00	5.00	2.2821	1.24731
Feeling that I am not fully qualified	78	5.00	.00	5.00	2.2308	1.16131
Trying to influence my immediate supervisors actions and decisions that affect me	78	5.00	.00	5.00	2.2051	1.25210
Trying to resolve differences with my superiors	78	5.00	.00	5.00	2.0000	1.17330

(table continues)

Table 23

Descriptive Statistics for Non-Title I Principals (N = 78)

	N	Range	Min.	Max.	Mean	Std. Deviation
Feeling not enough is expected of me by my superiors	78	5.00	.00	5.00	1.8077	1.21738
Administering the negotiated contract grievances interpretations etc	78	5.00	.00	5.00	1.6923	1.54001
Being involved in collective bargaining process	78	5.00	.00	5.00	1.5897	1.53264

Table 24 and Table 25 detail the overall mean of perceived stress and administrative Stress Index stress categories for Title I principals. The mean was determined by averaging the individual ASI responses on the 5-point Likert scale. A marked number 1 on the Likert scale indicated that the item never caused stress; 2 indicated rarely, 3 and 4 indicated occasionally, and a 5 indicated frequently. The results of the overall perceived stress levels and stress categories of North Carolina elementary school principals' who are the principals of Title I schools are shown in Tables 24 and 25.

Table 24

Title I Principals (N = 145)

Stress Index of Title I Elementary Principals	
Overall Mean Stress Index	98.49
Possible Range of Scores	35 to 175
Standard Deviation	22.45

Table 25

Administrative Stress Index Stressors Category Title I Schools

<i>Stressor</i>	<i>Mean Score</i>	<i>Possible Range</i>	<i>Standard Deviation</i>
Administrative Constraints	3.4	7-35	.76
Administrative Responsibility	2.6	8-40	.88
Interpersonal Relations	2.7	6-30	.70
Intrapersonal Conflicts	2.8	7-35	.74
Role Exceptions	2.5	7-35	.83

Table 26 indicates the data received from principals who led Title I schools. There were three stressors with a mean of 3.5 or greater; "feeling that I have too heavy a workload, one that I cannot possibly finish during the normal workday," "feeling that meetings take up too much of my time," and "trying to complete reports and other paperwork on time".

Table 26

Descriptive Statistics for Title I Principals (N = 145)

Stressors	N	Range	Min.	Max.	M	SD
Feeling that I have too heavy workload one that I could not possibly finish during the normal work day	145	4.00	1.00	5.00	3.7172	1.09102
Feeling that meetings take up too much time	145	4.00	1.00	5.00	3.6414	1.01157
Trying to complete reports and other paperwork on time	145	4.00	1.00	5.00	3.5448	.94266
Supervising and coordinating the task of many people	145	4.00	1.00	5.00	3.4207	1.08442
Having to make decisions that affect the lives of individual people that I know colleague staff friends students etc	145	4.00	1.00	5.00	3.4000	1.00277
Having my work interrupted frequently by staff members who want to talk	145	4.00	1.00	5.00	3.3448	1.02320
Evaluating staff performance	145	4.00	1.00	5.00	3.3310	1.09326
Complying with federal state district and organizational rules and policies	145	5.00	.00	5.00	3.2966	1.17334

(table continues)

Table 26

Descriptive Statistics for Title I Principals (N = 145)

Stressors	N	Range	Min.	Max.	M	SD
Trying to resolve parent school conflict	145	4.00	1.00	5.00	3.2276	.94093
Being interrupted frequently by telephone calls	145	4.00	1.00	5.00	3.2207	.91643
Writing memos letters and other communications	145	5.00	.00	5.00	3.2069	1.04680
Feeling that I have to participate in school activities outside the normal working hours at the expense of my personal time	145	5.00	.00	5.00	3.1379	1.19385
Preparing and allocating budget resources	145	4.00	1.00	5.00	3.1241	.96381
Trying to resolve differences between among staff members	145	5.00	.00	5.00	3.0690	1.03853
Imposing excessively high expectations on me	145	4.00	1.00	5.00	2.9862	1.25823
Trying to gain public approval and financial support for school programs	145	5.00	.00	5.00	2.9448	1.25155

(table continues)

Table 26

Descriptive Statistics for Title I Principals (N = 145)

Stressors	N	Range	Min.	Max.	M	SD
Feeling that the progress on my job is not what it should or could be	145	4.00	1.00	5.00	2.9172	1.01724
Feeling that I have too much responsibility delegated to me	145	5.00	.00	5.00	2.8759	1.08578
Attempting to meet social expectations community friends colleagues	145	5.00	.00	5.00	2.8552	1.20750
Feeling staff members don't understand my goals and expectations	145	4.00	1.00	5.00	2.8483	.97419
Thinking that I will not be able to satisfy the conflicting demands of those who have authority over me	145	4.00	1.00	5.00	2.8414	1.15876
Handling student discipline problems	145	5.00	.00	5.00	2.8207	1.05191
Trying to resolve differences among students	145	5.00	.00	5.00	2.7655	1.11189
Knowing that I can't get information needed to carry out my job properly i e Red Tape	145	4.00	1.00	5.00	2.7310	1.10714

(table continues)

Table 26

Descriptive Statistics for Title I Principals (N = 145)

Stressors	N	Range	Min.	Max.	M	SD
Feeling pressure for better job performance above what I think is reasonable	145	5.00	.00	5.00	2.5931	1.27201
Feeling that I have too little authority to carry out responsibilities assigned to me	145	5.00	.00	5.00	2.5793	1.13449
Not knowing what my superior thinks of me or how he she evaluates my performance	145	5.00	.00	5.00	2.5586	1.30105
Speaking in front of groups	145	5.00	.00	5.00	2.4759	1.25876
Trying to influence my immediate supervisors actions and decisions that affect me	145	5.00	.00	5.00	2.4138	1.11546
Being unclear on just what the scope and responsibilities of my job are	145	5.00	.00	5.00	2.0414	1.25762
Feeling that I am not fully qualified	145	5.00	.00	5.00	1.9379	.94443
Trying to resolve differences with my superiors	145	5.00	.00	5.00	1.8966	1.18277

(table continues)

Table 26

Descriptive Statistics for Title I Principals (N = 145)

Stressors	N	Range	Min.	Max.	M	SD
Administering the negotiated contract grievances interpretations etc	145	5.00	.00	5.00	1.6000	1.42595
Feeling not enough is expected of me by my superiors	145	5.00	.00	5.00	1.5931	1.04414
Being involved in collective bargaining process	145	5.00	.00	5.00	1.5379	1.51392

Summary

This chapter analyzed the data and reported findings obtained from the questionnaire survey returned by 222 North Carolina elementary school principals. The investigation addressed the relationship of stress and coping preferences as compared to the dependent variables such as age, years of experience, school location, and years of experience within the current district. The results suggested there were no significant differences, as related to previously listed variables. The only exception was years within current district, which indicated a significant difference within the group of principals who had worked in his or her current district from 7-9 years to 10 or more years. Other variables include gender, level education, size of school, Title I status, and number of years in education. Additional analyses indicated there were no significant differences between levels of experience and coping preferences. The survey data indicates Title I

principals are more stressed than Non-Title I principals. The first section, of the study focused on descriptive and demographic data. The second section, discussed responses to the Administrative Stress Index and Roesch Coping Preference Scale. A complete discussion of the findings is presented in the next chapter.

Chapter 5

Findings Summary, Discussion, Recommendations, and Conclusion

The final chapter presents a summary of the entire study, which includes a purpose statement research questions, methodology, major findings, and implications. Chapter Five also includes: conclusions and implications for North Carolina Elementary Principals and human resource administrators, and recommendations for the further research.

Purpose of the Study

The purpose of this study was to identify what elementary school principals perceive as on-the-job stressors as identified by the Administrative Stress Index (Gmelch et al. 1982). This study compares the differences between identified stressors of new elementary school principals on the job less than three years and elementary school principals in the job for more than three years. A second purpose of this study was to identify what elementary school principals employed as their preferred coping strategies. This study further compared the differences between identified coping strategies of new elementary school principals in the job less than three years and elementary school principals in the job for more than three years. In addition, the study also measured the differences of perceived stress level of Title I principals as compared to non- Title I elementary principals.

Finally, the study measured whether there was a significant difference in perceived stress levels and coping preferences of principals in regards to: (a) age, (b) level of education, (c) school location, and (d) years of service to district.

The major research questions this study answered were:

1. What is the mean overall stress index of North Carolina elementary principals on the Administrative Stress Index?
2. What are the major perceived job stressors by elementary school principals in North Carolina as measured by the Administrative Stress Index? (Gmelch & Swent, 1977).
3. What are the coping strategies as measured by the Roesch Coping Preference Scale (RCPS) utilized to reduce the level of stress by the elementary school principals in North Carolina?
4. Are there significant differences between the identified coping strategies by the elementary school principals in North Carolina who have more than three years experience compared to the elementary principals who has less than three years?
5. What is the relationship between the level of perceived stress by elementary school principals in North Carolina and selected demographics? The demographic variables are: age, ethnicity, level of education, number of years as an elementary school principal, years of service to the district, and school location?
6. What is the relationship between the coping preferences by elementary school principals in North Carolina and selected demographics? The demographic variables are: age, ethnicity, educational level, number of years as an elementary school principal, and school location?
7. Are Title I principals more stressed than non-Title I principals as measured by the Administrative Stress Index?

Findings Summary

The demographic data collected for the study suggested that the typical elementary school principal in this study was a female between 35 to 45 years of age. She would have had a minimum of 21 years experience in the educational system, with 10 or more years as an administrator in her current district. In general, the highest degree received was a Masters with a school population of 300-600 students in a Title-I school.

Seven research questions produced the findings regarding occupational stress and coping preferences among elementary school principals in North Carolina.

Research Question 1

The purpose of this research question was to determine the overall level of stress among elementary school principals who participated in this study. The results of their response on the Administrative Stress Index showed a mean of 93.01 and a standard deviation of 20.54. At least, 68% of the mean scores fall between 73 and 113, which show that the principals experience moderate stress according to the Administrative Stress Index.

Research Question 2

The second research question aimed to determine the sources of internal administrative stress among principals in this study. The principals responded to a 35-item Administrative Stress Index. The results ranked from a high mean of 3.63 on the stressor of "feeling that I have too heavy a work load, one that I cannot possibly finish during the normal work day" to a low mean of 1.54 on the stressor of "being involved in the collective bargaining process".

The results of the Administrative Stress index indicate that elementary school principals in this study were most stressed by administrative tasks in their jobs. This conclusion was supported by the fact that 9 of the top 10 stress sources have their origin in the day-to-day administrative duties of the principal. From a range of 7 to 35, the "administrative constraints" and 8 to 40, "administrative responsibilities" subscales scored the highest means of 23.59 and 20.76 respectively. The "administrative responsibilities" subscale includes tasks such as supervision, evaluation, negotiations, budget-preparation, report-writing and gaining public support for school programs. The "administrative constraints" subscale include tasks with stressors related to meetings, workload and compliance with federal, state and organizational politics. Some of the lower stressors identified by the principals were related to the issues of authority and competency. This suggests that principals have confidence in their experience and knowledge to fulfill the requirements the job. A complete breakdown of all 35 stressors was presented in Table 12

Research Question 3

This research question utilized the Roesch Coping Preference Scale to identify the coping strategies employed by North Carolina Elementary School Principals in dealing with stressors in their jobs. The coping preferences ranged from a high mean of 4.67 for "take work home" to a low mean of 2.00 on the coping strategy of "organize a party". Some of the other highly ranked coping preferences were (a) work on weekends, (b) discuss concerns with colleagues/other principals, (c) listen to music, (d) think about future, and (e) delegate task.

The 21-item Roesch Coping Preference Scale was then divided into seven strategies: "recreational/inactive activities," "consulting techniques," "physical activities," "extra work activities," "proactive techniques," "time out techniques" and "change of normal routine". "Extra work techniques" 4.6 mean score, "time out techniques" 4.2 mean score and "consulting techniques" 3.9 mean score, were the strategies these principals preferred for dealing with stress in their jobs. The least preferred coping strategy was the use of proactive techniques that included cursing, smoking and taking a drink. These findings were similar with Roesch (1979) and her study of Virginia school administrators.

Research Question 4

This research question used the ANOVA method of data analysis to probe further to find out which coping preferences were used to reduce stress as perceived by the principals in this study who had more than three years and those who had less than three years of experience. A one-way ANOVA was used to determine if statistical significance between-group difference existed among the total coping preferences scores for groups of principals with one to three years of experience, four to six years of experience, seven to nine years of experience, and ten or more years of experience. The total coping preference scores were measured by the sum of their responses to the 21 items on the Roesch Coping Preference Survey. Results of the ANOVA revealed that there were no significant differences from experienced principals and those with less experienced principals in North Carolina who participated in this study and the total level of their coping preferences.

Research Question 5

This research question was designed to determine if differences in stress levels as measured by Administrative Stress Index, the four variables the ASI compared were age, years of experience as a principal, number of years within the school district, and school location. The ANOVA indicate statistical significance between job related stress and the number of years within a school district. Significance occurred at 0.05, as the overall stress level of the principals increased, the numbers of years within the district increased accordingly. No other significance was found as to how the principals' age, number of years as a principal, and school location related to their perceived overall stress level.

An ANOVA comparison of overall stress and total stress rating with respect to years of experience as a principal, school location and principal's age revealed no significance. However, results shows those years within a school district were significantly different. A comparison factor assuming equal variances showed that the largest variance was between principals who had been in the district for 7-9 years versus those who had more than 10 years.

Research Question 6

The aim of the research question was to determine the relationship, if any, between coping preferences and selected demographic variables. Overall, the results of the Spearman's Rho correlations coefficients suggest there were 11 significant correlations between coping preferences and demographic variables of age, years of experience for principals, number of years in the district, principal's age, and school location. There were only one statistically significant positive correlation, between (a) school location and organize a party ($p = .038$). The other 10 correlations that were

inversely correlated were (b) years in district and take a short break ($p = .009$), and (c) years in district and take a drink or smoke ($p = 0.00$), (d) years in district and listen to music ($p = .001$), (e) years in district and call a friend ($p = .009$), (f) years in district and focus on a different task ($p = .016$), (g) years as principals and discuss concerns with other principals ($p = .030$), (h) age and discuss concerns with other principals ($p = .035$), (i) age and cruse ($p = .037$), (j) age and run/jog ($p = .012$), and (k) years in district and call a friend ($p = .009$).

The results concur with evidence from the literature that coping preference techniques vary with each individual. There is no single level of stress that is optimal for all people. As such, what is distressing to one may be a joy to another and even when principals agree that a particular event is distressing, they are likely to differ in their physiological and psychological responses to it. Table 20 displayed the analysis of the correlations computed.

Research Question 7

The purpose of this research question was to determine whether or not Title I principals are more stressed than their counterparts, non- Title I principals who participated in this study. The results of the 145 Title I North Carolina Elementary Principals responses to the 35 items on the Administrative Stress Index were ranked from a high mean of 98.49. Whereas, the non-Title I (N = 78) North Carolina Elementary Principals had an overall mean score 95.35, these results revealed that Title I principals are more stressed than non-Title I principals. The principals responded to a 0 to 5-point scale as to the level of stress they experienced on the job. The five highest ranking items on this inventory according to Title I principals were: (a) Feeling that I have too heavy

workload one that I could not possibly finish, (b) feeling that meetings take up too much time, (c) trying to complete reports and other paperwork on time, (c) supervising and coordinating the task of many people, and (d) having to make decisions that affect the lives of others.

The findings from the ASI reveal that the principals in this study are experiencing moderate levels of stress in their work, especially Title I principals. An analysis of the stress level subscales shows that the Title I principals had higher overall mean scores in each category such as: Administrative Constraints ($M = 23.97$), Administrative Responsibility ($M = 21.21$), Interpersonal Relations ($M = 16.27$), Interpersonal Conflicts ($M = 19.40$) and Role Expectations ($M = 17.64$).

Discussion

Research studies have pointed out the prevalence of stress and coping within the principalship (Czemiakowski, 1995; Gmelch & Torelli, 1994; Harrison, 1991). Reviews of the literature reveal that empirical research into this area has been more prevalent in western countries, especially in England and the United States. Stress is manifested in the work environment in many ways. In the principalship, any characteristic of the work environment that poses a threat of harm or loss, is overly challenging to the principal, or exceeds the principal's resources for successful functioning on the job can be considered a stressor. Torelli and Gmelch (1993) stated that the causal situational factors in the work place that require the worker to make adjustments or adapt to change are considered to be job stressors.

Occupational stress occurs when there is a misfit or disconnect between the individual and job environment. The person-environment (P-E) fit theory postulates that

"when the needs and abilities of the administrator do not match the rewards and demands of the job, the result is poor P-E fit, a situation that produces harmful occupational stress" (Feitler & Tokar, 1986, pp. 257-258). Feitler and Tokar added that the P-E fit theory has great potential for unlocking a more accurate picture of stress as it focuses on the individual rather than the organization.

Stress and coping preferences will remain an essential issue for North Carolina elementary principals, especially as advances in technology resources continue to influence teaching and learning and as social problems continue to arise and impact schools. As schools become even more multi-faceted, a higher level of commitment and resources will be demanded from principals who will require more professional development opportunities in the area of stress management and coping strategies.

According to Whitaker (1996):

The principal's role must be rewarding, fulfilling and challenging. To remain in the job, principals need to feel that they are continually growing as professionals and as individuals. Principals must feel that they are admired and respected by others, have advancements and professional growth opportunities, and have enough autonomy to make changes that will significantly impact the learning environment in their buildings. It is up to the central office staff to design ways to facilitate the continued growth of principals, and to remove some of the barriers inhibiting the growth. (p. 69)

One strategy from the research suggests principals develop a plan that assists in managing the job and role of the principalship. This strategy should also allow for personal time to be built into the plan. Allison (1997) reports that "principals who set

realistic goals, approach problems optimistically and objectively, engage in activities that supported spiritual growth, take mini-vacations, and are actively involved in their communities had significantly lower stress scores as shown by the ASI" (p. 49). Gmelch and Chan (1994) suggest the importance of the principal's action plan, self-awareness and attitude towards the principalship.

Three of the top stressors identified by this current research were the identical to the top five stressors identified by Gmelch and Swent in their 1977 study of Oregon principals (1977). The major finding in the study was the majority of elementary school principals in North Carolina preferred to cope with stress by spending more time at their work either at home or on the weekends, which was the results of Allison's study. Allison's study on the stress of principals found that principals cope with stress by working harder (Allison, 1997). Allison also compared the coping preferences of principals with high stress scores on the ASI to principals with low stress scores on the ASI. The study results yielded that eight of the 10 coping strategies were the same for both high and low stress principals. Allison's high stress principals' used two additional coping strategies "work harder and talk to district administrators or other school principals" (Allison, 1997, p. 47).

Physical activity was not a preferred coping preference among North Carolina elementary school principals. The two items on the Roesch Coping Preference Scale that related to physical activity had mean score of 3.3 (exercise and running/ jogging). Bly (2002) found in his study of principals who focused on physical well-being are more likely to avoid burnout and reduce stress.

Furthermore, the time has come to recognize and appreciate the difficult role of the principal and to remove barriers to enable principals to grow within the educational system. More research is needed to deal with this complex and pervasive phenomenon of stress and dealing with stress in the principalship.

Recommendations

The results of this study suggest that educational policy makers and district level administrators at both state and national levels should look for ways to reduce administrative constraints in the principalship. However, principals must begin to take ownership of this problem. Principals need to lead the charge of developing and seeking professional development opportunities in which to participate, this paradigm shift should better assist with the longevity of the principal in the principalship. Principals need to become more proactive in engaging superintendents and central office personnel in conversations that stem around this phenomenon of stress and how to help principals navigate through the school year. To support principals in better coping preferences with the presented demands of their work, policy makers and educational leaders should consider:

1. Beginning and novice principals must develop groups with mentors, support groups and/or induction programs to help them through the first three years of an appointment.
2. Principals must have professional development opportunities, time, and financial support.
3. Routine stress management strategies and seminars for all school administrators.

4. Providing in-service training, especially in budget planning and staff relations.
5. Providing programs that offer counseling, health evaluations, physical and mental fitness, diet, and health lifestyle information as a part of employee benefit package.
6. Principals must seek and develop a deliberate time and opportunities to share, dialogue, and problem solve with principals in the district and other colleagues.

In coping with stress, principals should consider organizing quarterly meetings or as needed to share job concerns and frustrations, however, the meeting must also discuss the positive outcomes of the timeframe to help build confidence and more strategies in the repertoire. Principals should attempt to develop a network of colleagues within the district and also outside the system to share job experiences and to build a battery of coping skills to endure the effects of job-related stress.

Recommendations for Further Study

Data analysis for this study has led to the following recommendations for future research.

1. Similar studies using the Administrative Stress Index and the Roesch Coping Preference Scale could be conducted with secondary school principals in different states. The study could also be extended to primary and charter school principals.
2. Future studies should take into consideration race and gender differences and years of total educational experiences, which could be significant variables in determining the perceived level of stress among principals.

3. Future studies should focus on first-year and novice principals into consideration. There must be strategies in place to ensure the required support to withstand these chaotic initial years.

4. More in-depth studies could be conducted to determine the relationship between stress and coping preferences. Higher education and certification programs should not only focus on how to become an administrator, but more importantly help develop the skill set needed to navigate through the daily pressures of the job.

5. Research could be conducted to determine how policy changes, accountability measures and budget deficits are affecting the morale and stress levels of school principals.

6. Investigate how the principal's leadership style and how staff interacts with the principal, and determine how those relationships affect the principal's job-related stress.

7. Principals could use more in-depth training and understanding of time management. Although, the focus of this study was geared towards identifying sources of stress and coping preferences, however, better ability to address time management could lessen the stress level in the principalship.

8. Professional development opportunities for principals have traditionally been limited in the area of stress management. Opportunities for principals to meet and to discuss their problems and concerns have been rarely offer as an option in most districts. This is a valuable strategy in and needs to be offered on a continual basis, this would provide principals the ability and time to share knowledge, experience and concerns with each other. As the principals' demands becomes more complex, obtaining peer support is critical to protect principals against stress in the principalship.

9. Conduct interviews with principals to assess his or her perceived level of stress during the school year.

10. Further investigate the stressors of principals who are involved in school improvement process or corrective action and see how those stressors can be minimized for the principals and their staff members.

Conclusion

This study examined the relationship of stress and coping preferences among North Carolina elementary school principals. In addition, this study assessed stress and coping skills, especially, regarding age, years as a principal, school location, and years in current district.

In examining the ratings of stressors given by the respondents, some of the principals were clearly experiencing stress much more frequently than other elementary school principals. It was also noticed that Title I school principals were more stressed than non-Title I principals. This researcher believes this is due to the added responsibilities that are placed on Title I principals. Overall, North Carolina elementary school principals appear to be moderately stressed according to the results of this study.

The stressors with the highest mean scores were related to the ASI's category of Administrative Constraints. The category of Administrative Constraints pertains to stressors related to dealing with pressures of time, meetings, workload, and compliances with local and federal mandates. Such findings are consistent with other studies have been completed. Czerniakowski (1995) when using the ASI to measure the effects of stress on Pennsylvania's principals, also found three of the top five reported stressors falling within the area of Administrative Constraints. Similarly, Gmelch and Swent

(1977) using the ASI to measure the effects of stress on Oregon's principals, also found two of the top five reported stressors falling within the area of Administrative Constraints.

North Carolina principals chose Extra-Work activities as their preferred strategy for dealing with stress. Several researchers indicated that as school administrator's work more hours per week, their levels of stress increase (NAESP, 2009). Principals need to gain greater knowledge and awareness about the detrimental effects of stress and the benefits of coping techniques, as well as to learn multiple and more effective coping strategies that will enable them to create a healthier learning environment in their schools.

Stress and coping preferences will continue to be a focal point for principals. The educational system is rapidly and ever changing, therefore, it is imperative that principals receive training to effectively deal with these challenges. The principals cannot allow stress to adversely affect his or her job performance. The effectiveness of the principal at work is extremely important to the success or failure of the school.

Numerous studies related to job-related stress with principals have exhibited insights in regards to coping skills that have been utilize effectively in the principalship. It is desired that this study and its findings will drive change towards improving working conditions and better quality to individuals into the principalship in North Carolina.

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Appendices

Study Survey

Administrative Stress Index

1. Being interrupted frequently by telephone calls
 - Almost Always
 - Usually
 - Sometimes
 - Rarely
 - Almost Never
 - Not Applicable

2. Supervising and coordinating the task of many people
 - Almost Always
 - Usually
 - Sometimes
 - Rarely
 - Almost Never
 - Not Applicable

3. Feeling staff members don't understand my goals and expectations
 - Almost Always
 - Usually
 - Sometimes
 - Rarely
 - Almost Never
 - Not Applicable

4. Feeling that I am not fully qualified
 - Almost Always
 - Usually
 - Sometimes
 - Rarely
 - Almost Never
 - Not Applicable

5. Knowing that I can't get information needed to carry out my job properly i.e. Red Tape
- Almost Always
 - Usually
 - Sometimes
 - Rarely
 - Almost Never
 - Not Applicable
6. Thinking that I will not be able to satisfy the conflicting demands of those who have authority over me
- Almost Always
 - Usually
 - Sometimes
 - Rarely
 - Almost Never
 - Not Applicable
7. Trying to resolve differences among students
- Almost Always
 - Usually
 - Sometimes
 - Rarely
 - Almost Never
 - Not Applicable
8. Feeling not enough is expected of me by my superiors
- Almost Always
 - Usually
 - Sometimes
 - Rarely
 - Almost Never
 - Not Applicable
9. Having my work interrupted frequently by staff members who want to talk
- Almost Always
 - Usually
 - Sometimes
 - Rarely
 - Almost Never
 - Not Applicable

10. Imposing excessively high expectations on me

- Almost Always
- Usually
- Sometimes
- Rarely
- Almost Never
- Not Applicable

11. Feeling pressure for better job performance above what I think is reasonable

- Almost Always
- Usually
- Sometimes
- Rarely
- Almost Never
- Not Applicable

12. Writing memos, letters and other communications

- Almost Always
- Usually
- Sometimes
- Rarely
- Almost Never
- Not Applicable

13. Trying to resolve differences with my superiors

- Almost Always
- Usually
- Sometimes
- Rarely
- Almost Never
- Not Applicable

14. Speaking in front of groups

- Almost Always
- Usually
- Sometimes
- Rarely
- Almost Never
- Not Applicable

15. Attempting to meet social expectations (community, friends, and colleagues)

- Almost Always
- Usually
- Sometimes
- Rarely
- Almost Never
- Not Applicable

16. Not knowing what my superior thinks of me, or how he/she evaluates my performance

- Almost Always
- Usually
- Sometimes
- Rarely
- Almost Never
- Not Applicable

17. Having to make decisions that affect the lives of individual people that I know (colleague, staff, friends, students, etc.)

- Almost Always
- Usually
- Sometimes
- Rarely
- Almost Never
- Not Applicable

18. Feeling that I have to participate in school activities outside the normal working hours at the expense of my personal time

- Almost Always
- Usually
- Sometimes
- Rarely
- Almost Never
- Not Applicable

19. Feeling that I have too much responsibility delegated to me

- Almost Always
- Usually
- Sometimes
- Rarely
- Almost Never

Not Applicable

20. Trying to resolve parent/school conflict

- Almost Always
- Usually
- Sometimes
- Rarely
- Almost Never
- Not Applicable

21. Preparing and allocating budget resources

- Almost Always
- Usually
- Sometimes
- Rarely
- Almost Never
- Not Applicable

22. Feeling that I have too little authority to carry out responsibilities assigned to me

- Almost Always
- Usually
- Sometimes
- Rarely
- Almost Never
- Not Applicable

23. Handling student discipline problems

- Almost Always
- Usually
- Sometimes
- Rarely
- Almost Never
- Not Applicable

24. Being involved in collective bargaining process

- Almost Always
- Usually
- Sometimes
- Rarely
- Almost Never

Not Applicable

25. Evaluating staff performance

- Almost Always
- Usually
- Sometimes
- Rarely
- Almost Never
- Not Applicable

26. Feeling that I have too heavy workload, one that I could not possibly finish during the normal work day

- Almost Always
- Usually
- Sometimes
- Rarely
- Almost Never
- Not Applicable

27. Complying with federal, state, district and organizational rules and policies

- Almost Always
- Usually
- Sometimes
- Rarely
- Almost Never
- Not Applicable

28. Feeling that the progress on my job is not what it should or could be

- Almost Always
- Usually
- Sometimes
- Rarely
- Almost Never
- Not Applicable

29. Administering the negotiated contract (grievances, interpretations, etc.)

- Almost Always
- Usually
- Sometimes
- Rarely

- Almost Never
- Not Applicable

30. Being unclear on just what the scope and responsibilities of my job are

- Almost Always
- Usually
- Sometimes
- Rarely
- Almost Never
- Not Applicable

31. Feeling that meetings take up too much time

- Almost Always
- Usually
- Sometimes
- Rarely
- Almost Never
- Not Applicable

32. Trying to complete reports and other paperwork on time

- Almost Always
- Usually
- Sometimes
- Rarely
- Almost Never
- Not Applicable

33. Trying to resolve differences between/among staff members

- Almost Always
- Usually
- Sometimes
- Rarely
- Almost Never
- Not Applicable

34. Trying to influence my immediate supervisors' actions and decisions that affect me

- Almost Always
- Usually
- Sometimes
- Rarely

- Almost Never
- Not Applicable

35. Trying to gain public approval and financial support for school programs

- Almost Always
- Usually
- Sometimes
- Rarely
- Almost Never
- Not Applicable

=====

Roesch Coping Preference Scale

=====

36. Change food intake

- Almost Always
-
-
-
-
- Almost Never

37. Take a short break

- Almost Always
-
-
-
-
- Almost Never

38. Take a drink/smoke

- Almost Always
-
-
-
-
- Almost Never

39. Work on weekends

- Almost Always

-
-
-
-
- Almost Never

40. Run/jog

- Almost Always
-
-
-
-
- Almost Never

41. Discuss concerns with colleagues/other principals

- Almost Always
-
-
-
-
- Almost Never

42. Consult superior

- Almost Always
-
-
-
-
- Almost Never

43. Do volunteer work

- Almost Always
-
-
-
-
- Almost Never

44. Call a friend

- Almost Always

-
-
-
-
- Almost Never

45. Think happy thoughts of past

- Almost Always
-
-
-
-
- Almost Never

46. Organize a party

- Almost Always
-
-
-
-
- Almost Never

47. Continue in the same way and hope for the best

- Almost Always
-
-
-
-
- Almost Never

48. Change sleeping habits

- Almost Always
-
-
-
-
- Almost Never

49. Temporarily focus on a different task

- Almost Always

-
-
-
-
- Almost Never

50. Curse

- Almost Always
-
-
-
-
- Almost Never

51. Take work home

- Almost Always
-
-
-
-
- Almost Never

52. Exercise

- Almost Always
-
-
-
-
- Almost Never

53. Delegate task assignments

- Almost Always
-
-
-
-
- Almost Never

54. Think about future

- Almost Always

-
-
-
-
- Almost Never

55. Purchase new items
- Almost Always
 -
 -
 -
 -
 - Almost Never

56. Listen to music
- Almost Always
 -
 -
 -
 -
 - Almost Never

=====
Principal Data Form
=====

59. What is your age?
- Younger than 35
 - 35 - 45
 - 46 - 55
 - Older than 55

60. What is your gender?
- Male
 - Female

61. What is your current degree status?
- Bachelor

- Masters
- Educational Specialist
- Doctorate

62. How many years have you been an Elementary school principal?

- 1 - 3
- 4 - 6
- 7 - 9
- 10 or more

63. The area in which your school is located is best described as:

- Rural
- Suburban
- Urban

64. What is the size of your school?

- 300 Students
- 301 - 600 Students
- 601 - 800 Students
- 801 - 1,000 Students
- Greater than 1,000 Students

65. Is your school?

- Title 1
- Non - Title 1

66. How many years have you been in education?

- 0 - 5
- 6 - 10
- 11 - 15
- 16 - 20
- 21 or more years

67. How many years have you worked at your current school district?

- 0 -3
- 4 - 6
- 7 - 9
- 10 or more

Permission to Use Survey

Dear Devon:

Permission to use the ASI is hereby granted. My only request is that you cite the copyright (Walter H. Gmelch @ University of San Francisco) and provide me with a summary of the results.

Best of luck with your dissertation

Walt Gmelch

Sent from my iPhone

Walt Gmelch

Dean & Professor

School of Education

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On Nov 8, 2009, at 10:24 PM, Devon Carson <Devon_Carson@abss.k12.nc.us> wrote:

The 35 stressors identified in the ASI were categorized into five clusters of seven items each. The five categories were:

1. "Administrative constraints" deal with stressors related to meetings, workload and compliance with federal, state and organizational politics.

- a. being interrupted frequently by telephone calls.
- b. having to work frequently interrupted by staff members who want to talk.
- c. writing memos, letters and other communications.
- d. feeling that meetings take up too much time.
- e. feeling that I have too heavy a workload, one that I cannot possibly finish during the normal day.
- f. complying with state, federal and organizational rules and policies.
- g. trying to complete reports and other paper work on time.

2. "Administrative responsibility" includes tasks such as supervision, evaluation, negotiations, budget-preparation, report-writing and gaining public support for school programs.

- a. supervision and coordinating the tasks of many people.
- b. speaking in front of groups.
- c. preparing and allocating budget resources.
- d. being involved in the collective bargaining process.
- e. evaluating staff members' performance.
- f. administering and negotiating contracts.
- g. trying to gain public approval and/or financial support for school programs.

3. "Interpersonal" relations focus on resolving differences between teachers, student's parents and the school, including the handling of student discipline.

- a. feeling staff members don't understand my goals and expectations.
- b. trying to resolve differences between/among students.
- c. trying to resolve differences with my superiors.
- d. trying to solve parent/school conflicts.
- e. handling student discipline problems.
- f. trying to resolve differences between/among staff members.
- g. trying to influence my immediate supervisor's action and decisions that affect me.

4. "Intrapersonal conflicts" centers on conflicts between one's performance and one's internal beliefs, attitudes and expectations.

- a. feeling that I am not qualified to handle my job.
- b. knowing I can't get information needed to carry out my job properly.
- c. imposing excessively high expectations on myself.
- d. attempting to meet social expectations i.e. housing, clubs, friends, etc.
- e. having to make decisions that affect the lives of individual people I know
 - i.e. colleagues, staff members, students, etc.
- f. feeling that I have too little authority to carry out responsibilities assigned to me.
- g. feeling that the progress on my job is not what it should or could be.

5. "Role expectations" refer to differences existing between self- expectations and expectations of the public, including students, parents, colleagues, the board of education, supervisors and members of the community.

a. thinking that I will not be able to satisfy the conflicting demands of those who have authority over me.

b. feeling that I have too much responsibility delegated to me by my superior.

c. being unclear of just what the scope and responsibilities of my job are.

(Gmelch, Koch, Swent & Tung, 1982).

The Roesch Preference Coping Scale was categorized into seven factor groups.

The seven factors are as follows:

Strategy 1 — Recreational/ Inactive Activities

- a. continues in the same way and hope for the best
- b. plan a vacation
- c. organize a party
- d. thinks about future
- e. thinks happy thoughts of past events
- f. purchase a new item
- g. call a friend
- h. listen to music do volunteer work

Strategy 2 — Consulting Techniques

- a. consult superior
- b. delegate task assignments
- c. discuss concerns with principals in different schools
- d. discuss concerns with colleagues in education

Strategy 3 — Physical Activities

- a. exercise
- b. jog/ run

Strategy 4 — Extra Work Activities

- a. takes work home
- b. work on weekends

Strategy 5 — Proactive Techniques

- a. curse
- b. takes a drink

Strategy 6 —Time Out Techniques

- a. temporary change to a different task
- b. takes a short break

Strategy 7 — Change of Normal Routine

- a. change of sleeping habits
- b. change food intake (Roesch, 1979)