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The Relationship of Stress Levels to Wellness Practices Among
Community College Presidents

A dissertation
presented to
the faculty of the
Department of Educational Leadership and Policy Analysis
East Tennessee State University

In partial fulfillment
of the requirements for the degree
Doctor in Education

by
Eva C. Ratliff Dawson
May 2004

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Dr. Thomas Coates
Dr. Terrence Tollefson
Dr. Russell West

Keywords: Wellness, Stress, Community College, President, Lifestyle

ABSTRACT

The Relationship of Stress Levels to Wellness Practices Among Community College Presidents

by

Eva Charlotte Ratliff Dawson

The purpose of this study was to investigate the variety and level of wellness practices of community college presidents and the relationship of these practices to the stress levels of this group. Additionally, relaxation activities and the feelings, characteristics, and symptoms associated with stress were considered. Items measuring each of these variables, isolated from the literature and tested in a pilot sample, were combined into an electronic instrument, *Stress Levels and Wellness Practices Measurement for Community College Presidents*.

The design of the study was ex post facto/correlational. The population of the study was American community college presidents. A stratified random sampling of these presidents was drawn from three distinct locales: 240 urban, 147 suburban, and 199 rural community colleges. The electronic instrument was distributed to 587 presidents through email. There were 296 (50.4%) usable returns.

For the variables of interest, descriptive statistics were computed including frequencies and measures of central tendency. Correlation coefficients were used to determine relationships between variables. ANOVA and t-tests were used to identify differences in group means.

Significant positive associations were found between the management of stress and the balance of wellness practices for community college presidents. A significant difference in stress levels regarding gender and years of presidential tenure were found: female presidents were more stressed than their male counterparts, and presidents with more experience (years' presidential tenure) were less stressed. No difference was found in the stress levels of presidents by locale (urban, suburban, and rural). Furthermore, it was determined there was a significant negative correlation between the balance in wellness practices and stress symptoms. Engagement in the physical practices of wellness was related to a reduction of stress levels. Overall, it was concluded that while presidents showed significant control in stressful events and issues, continued efforts are needed to promote wellness practices into their busy lives.

DEDICATION

I dedicate this research to my parents, Wyatt and Grace Ratliff, not only for a lifetime of love and caring, but for teaching me lessons outside the classroom and instilling the value of lessons from within the classroom. My daddy, possessing a vast and most comprehensive collection of knowledge, common sense, and reasoning ability, has always been able to address any question I came to him with, complex or simple, whether about a national economic issue or how to add oil to the lawn mower. My mommy, with a generous helping of civility, passion for humanity, charity, and refinement, taught me gracious living skills at an early age. Growing up in the mountainous “*hollers*” of southwest Virginia, they had insight about possible enrichments for their children, not available to them when they were growing up. Not long ago, I asked Mom how she knew to set the table full course on Sunday; involve my sister and me in tap and ballet; take us to performances at the Barter theatre (donned in white glove and pinafore); and send us to two years of kindergarten (when generally unheard of at that time); and she replied “Besides what I learned at home, I read about those things in books when I was growing up and my home economics teacher taught me.” I believe I received a small dose of the blending of the characteristics from both my parents, and for that I am grateful. Through their daily example, I learned to have a positive outlook, a passion for life, and a desire for living each day to the fullest.

Secondly, I dedicate this work to my husband Ray Dawson. I have instilled in him the meaning of patience and a keen talent for entertaining himself and fostering self-interests. He has lovingly accepted my many involvements and has offered encouragement, just at the right moment, through a phone call or little note stating, “I’m Proud of You.” Early on, he

promised me a Harley upon completion of my doctoral studies ... now that I have completed he says that I owe him a Harley.

Thirdly, I dedicate this study to my siblings Jennifer Charles and Chris and Chuck Ratliff, and their families for encouraging me along the way. Our loving relationship and strong family connection makes the world a better place to live. Additionally, my stepson Devyn and my in-laws, Steve and Deana Dawson's love and acceptance are immeasurable.

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Most importantly, I appreciate the lasting guidance of the Garden United Methodist Church community and I offer thanks to God for his many blessings.

Rejoice in the Lord always....Let your gentleness be known to all men.... Be anxious for nothing, but in everything by prayer and supplication, with thanksgiving, let your requests be known to God. Philippians 4: 4-6

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CHAPTER 1

INTRODUCTION

The efficacy of wellness practices for an optimal quality of life necessitates a balance of the physical, emotional, social, spiritual, and intellectual dimensions of our lives (Powers & Dodd, 2003). Wellness is a dynamic and integrated level of functioning grounded in expanding awareness and practice of these dimensions (Edlin, Golanty, & Brown, 1999). Within this perspective, the amalgamations of these lifestyle components play a role in our total well-being, including the management of stress (Powers & Dodd, 2003). An inability to cope with perceived threats to these lifestyle components results in stress (Seaward, 2001). Holistic in nature, contemporary viewpoints regarding stress replace earlier philosophies that stress affects only the physical body (Seaward, 2001). Selye (1979), a former authority on the topic of stress, contended that the physiological response to stress, whether from a bad or pleasant experience, had the same effect on the body (Selye, 1979). It is now known that different neuropeptides are released when one experiences good and bad stress (Seaward) and that uncontrollable, erratic, and constant stress has extensive consequences on our well-being (Panzarino, 2002). Conversely, stresses with which one can cope and master are not necessarily bad. In fact, by learning to predict their reoccurrence, a plan can be developed to decrease or evade them in the future (Alamgir, 2001). A major component of this action plan is being cognizant of the need for balance in the various dimensions of one's life.

The idea of a balanced lifestyle is not new. The pathway of the philosophy for the importance of a balanced lifestyle can be traced to Aristotle (384-322 B.C.), who said that one should lead a rational life of moderation, avoiding extremes. For example, the extremes

of too much or too little food can lead to obesity or poor health. Aristotle termed the path between the extremes the *Golden Mean*, and believed the thinking person should avoid such excesses (Ozmon & Craver, 1998).

The practice of Aristotle's philosophy would be beneficial as America aged and as the failure to live life to the fullest because of poor health became a growing concern. For example, life expectancy for a person born in 1997 was 76.5 years, nearly 29 years longer than for a child born in 1900 (Anderson & DeTurk, 1999). Increasingly, individuals were living over 100 years of age; however, living that span in good health occurred only to a few. A lifetime of good health relied to some degree on environmental and behavioral factors that required the application of considerable management and control (Insel & Roth, 2002). The best action to take to promote a full, productive life was debatable because this mission required the overcoming of many obstacles, some of which were totally beyond one's control (Donatelle, 2001). Most people who aged successfully gave consideration and attention to their physical, spiritual, social, emotional, and mental well-being, starting at an early age (Insel & Roth).

While each of these components of well-being has some specificity of its own, it is the integration of these dimensions that gives meaning for the individual who was striving for a healthy lifestyle. This declaration can be connected to Albert Einstein's philosophy (*theory of relativity*) that all matter was multifaceted and no one part worked independently of other connected parts (Seaward, 2001). Validating (and revitalizing) the "ancient *whole systems theory*...the whole is greater than the sum of the parts" (Seaward, p. 20); Einstein's 1905 *theory of relativity* substantiated the importance of balancing wellness practices. Further confirming the importance of wellness practices was the United States Department of Health

and Human Services [DHHS] (2000), which believed that quality of life or well-being was more difficult to measure than life expectancy due to its subjectivity. Reflected in a personal awareness of physical and mental health, *well-being* infused all the dimensions of wellness, encompassing one's belief system and the social environment in which he or she lived. (DHHS).

O'Donnell (2000) reported that well-being could be enhanced through the clarification and strengthening of lifestyle values associated with the improvement of a quality life.

We can prevent many of these deaths and enhance quality of life for millions of people if we can help them exercise regularly, eat nutritious foods, avoid tobacco and excess alcohol, learn to manage stress, enhance social networks and economic conditions, clarify lifestyle values, and achieve a sense of fulfillment in their intellectual pursuits (O'Donnell).

Moreover, lifestyle related deaths account for approximately half of all premature deaths in the United States and other developed countries; many of which could be prevented through positive lifestyle practices (O'Donnell, 2000).

Many individuals have reported the relationship of the role wellness practices have on well-being, and the effect these practices have on coping with psychosocial stress. The relationship between health practices, perceived stress, and the levels of good health was significant (Spiriduso, 1995). These relationships were highly interconnected, making them difficult to study. For example, poor health practices could compromise well-being, causing high levels of stress - or *vice versa*, high stress levels could lead to poor physical health (Spiriduso). Moreover, it is clear that we must understand the important role wellness plays in

the reduction of stress, accepting the reality that each dimension must be fostered for the achievement of a balanced and productive lifestyle. Achieving lifetime wellness required "knowledge, self-motivation, awareness, and effort" (Insel & Roth, 2002, p. 9).

Cognizant of the importance of wellness practices to the well-being of all Americans and to assist in the understanding of wellness, the DHHS (2000) provided a guide of health objectives aimed at improving the quality of life for all Americans. The goal of this initiative was to address "scientific advances" in health care and "information technology" (DHHS, Forward section, ¶ 2). It further addressed "the changing demographics...health care...and the growing impact of global forces on...health status" (DHHS, Forward section, ¶ 2). The guide, *Healthy People*, was first released by DHHS in 1980 and is updated every 10 years. In a message included in the current guide, Healthy People 2010, Donna Shalala, Secretary of Health and Human Services, accentuated the importance of the plan's vision for increased life expectancy and quality of life (DHHS, 2000). As a starting point, Shalala encouraged leaders in all communities to assist individuals in making informed decisions about personal health. She urged all leaders to help motivate, educate, and provide opportunities for healthy behaviors and environments. This process must originate with leaders as they implemented wellness practices for themselves, so they could be empowered to help others strive for the same goals (DHHS, 2000).

The challenge of implementing Shalala's plan is not easy for most leaders because of their highly complex and demanding way of life. Leaders of community colleges are no exception. The community college referred to as a "connecting institution" by Cohen and Brawer (1987, p. 1)... "serves all sorts of individuals as well as society as a whole." These coauthors referred to this institution as a "college for everyone" (Cohen & Brawer, 1987, p.

3). Although these institutions serve a diverse population and are located strategically within driving distance to most communities throughout the United States, the leaders of these organizations live a very hectic lifestyle and the added responsibility of promoting and implementing personal wellness practices was not a simple undertaking. Benton (2001) reported that these leaders were struggling to maintain a continual balance among the elements of envisioning the future, proper planning, dealing with people, displaying leadership, influencing and motivating, taking part in the community, and staying financially solvent, which leaves little time for striving for personal wellness practices (Benton). Moreover, Baker (1992) reported that rapid change is upon community college leaders. Envisioned as a “new paradigm,” this change process must “be played out in a period of turbulence, scarce resources, declining enrollments, soaring attrition rates, increasing illiteracy, student diversity, and shrinking program offerings” (Baker, 1992, p. ix). Through the incorporation and balancing of wellness in their lives, community college presidents will have the stamina to undertake this new paradigm of change. These practices will not only prove beneficial for personal well-being, but the example they set would help staff and students in their quest for a less stressed lifestyle. By promoting well-being, these practices would create a less stressful environment, leading to a more productive institution of learning for all (C. R. King, personal communication, May 23, 2002).

Similar paradigms existed for workplaces. Most had great potential for individual enrichment, challenge, and self-development; however, their implementation was disrupted because of widespread stress (Benjamin, 2000). The strong and widespread allegations that workplaces had become incredibly stressful was validated through the work of researchers such as Boyd and Wylie, 1994; Francis, 1995; Hastings and Greenshield, 2002; Levin et al.,

1995; Linde, 2000; Manthey, 2001; McCracken, 2001; Mercy, 1996; Murphy and Archer, 1996; Smith, 1995; and Wiley, 2000. Most researchers, such as these, had primarily examined the causes, symptoms, effects, and management strategies for stress related to workers rather than to administrators. In comparison to the massive literature on employee stress; very little research had been conducted on the existence or levels of stress among administrators and, in particular, college presidents, based on their practices of wellness.

Purpose of the Study

The purpose of this study was to investigate the variety and level of wellness practices of community college presidents and the relationship of these practices to the stress levels of this group. Through the development of a comprehensive stress scale, the degree, frequency, cause, and symptoms of stress among community college presidents were explored. Simultaneously, employment of a multidimensional wellness scale helped identify wellness behaviors practiced by this group. Additionally, the relationship between the stress levels and the wellness practices of these presidents was examined. Furthermore, I investigated the extent and type of association between stress and wellness practices, and respondent demographics such as age, race, gender, years of experience as president, and locale.

Due to limitations in current stress and wellness measurement, it is not known to what extent community college presidents practice the dimensions of wellness and attempt to add balance in their daily lives. The effects these practices have on the stress levels of this group were unclear. The purpose of this study, therefore, was to reveal these wellness practices, identifying those most influential in the management of stress.

Research Questions

The following research questions, regarding community college presidents, are proposed:

1. What is the demographic profile for gender, age, tenure as president, and ethnic origin of community college presidents?
2. What are the 10 most common stress related variables generating high or extreme stress among community college presidents?
3. Do community college presidents grouped by suburban, urban, and rural differ on overall stress means (a mean for the three stress categories collectively); and does each of these means for the three categories (stress categories independently) differ for each of the three groups of presidents by locale?
4. Is there a relationship between the levels of stress and independent variables: gender and years' tenure as community college president?
5. Is there a difference between minority and non-minority respondents on the stress levels of community college presidents?
6. Is there a relationship between the levels of stress experienced by community college presidents and their weekly feelings, characteristics, and stress symptoms?
7. What are the 10 most common wellness practices among the presidents?
8. Is there an effect by gender on the wellness practices of community college presidents?
9. What are the 10 most commonly cited relaxation techniques of community college presidents and how much time do presidents have to relax?
10. Is there a relationship between the stress levels experienced by community college presidents and the wellness practice subscales of this group?

11. Do community college presidents grouped by suburban, urban, and rural differ on overall wellness means (a mean for the four wellness dimensions collectively); and does each of these means for the four dimensions (wellness dimensions independently) differ for each of the three groups of presidents by locale?
12. Is there a relationship in the perceived overall balance of wellness and the perceived management of stress?

Significance of the Study

Stress is a major cause for concern in terms of its impact on individuals' lives and the productivity of academe and other organizations. No institution in today's society was immune to the phenomenon of stress, including community colleges (Ostrow, 2000). "Community colleges are facing impending leadership crisis" (Shults, Presidential Skills section, ¶ 2) as the presidents of these institutions faced multiple job responsibilities and a retiring workforce (Shults).

Community college presidents were faced with a multitude of challenges as they led their institutions through the 21st century transformation. Consequently, stress often resulted from the tremendous demands on these leaders' fast-paced lifestyles (C. R. King, personal communication, November 20, 2002). In addition to day-to-day undertakings, community college presidents coped with magnified financial concerns as governmental demands for cuts in budgets paralleled the challenge of everyone wanting a bigger cut of the same pie (C. R. King, personal communication, August 17, 2002; Phillipe & Patton, 1999). Similarly, Branson (2001-02) reported that "shrinking budgets, hiring freezes, and staff reductions" lead to "strained relationships and adverse affects on mission performance" (p. 45). Compounding the ever day decision making process of community college presidents were diversity issues,

as education and training become a necessity for all ages and cultures (Schuetz, 2002, ¶ 2). Additionally, enrollment requirements, as a major qualifier for state funding, created a major dilemma for these leaders as citizens drift in and out of communities to find employment.

Furthermore, additional challenges are presented from technological advancements, affecting the transmission and receiving of information, and thus the way we learn in today's world. Community college presidents were not only responsible for the challenges within their organizations; they were key players throughout the communities in which he or she served (Phillipe & Patton, 1999). For survival within the changing community college environment it is imperative that presidents withstand the pressures and maintain the stamina to meet its demands. This could be accomplished by striving for a balanced healthy lifestyle. (C. R. King, personal communication, November 20, 2002).

The significance of this study is its likelihood to identify appropriate wellness practices suitable for workshops aimed at helping motivate leaders toward making informed decisions about healthy lifestyles. Additionally, the effect these practices had on reducing the stress levels of this group of administrators could be understood. By investigating the wellness practices and stress levels of community college presidents, a newfound awareness of the relationship between these two factors conceivably could, in turn, lead to positive lifestyle changes for those suffering the anxieties of stress.

Definitions

Wellness: Wellness in this study is the holistic perception of optimal health, which includes physical, emotional, mental, spiritual, environmental, and social well-being (Insel & Roth, 2002, p. 4).

Dimensions of Wellness: Interrelated elements of health that must be developed to achieve

well-being. These include physical, emotional, mental, spiritual, and social health (Insel & Roth, p. 4).

Wellness Practices: Wellness practices in this study include the amount of time and concern expended in each of the health dimensions, including physical, emotional, mental, spiritual, and social health.

Well-being: A theoretical concept that includes the ideas of contentment, morale, and happiness (Spirduso, 1995, p. 305). Influenced by environmental occurrences, well-being is an individual, somewhat short-lived, emotional feeling measured through self-report (Spirduso).

Stress: The inability to cope with a (real or imagined) threat to one's mental, physical, emotional, and spiritual well-being, which resulted in a series of physiological responses and adaptations (Seaward, 2001, p. 4).

Community College: Community colleges are centers of educational opportunity. More than 100 years ago, this unique, American invention put publicly funded higher education at close-to-home facilities and initiated a practice of welcoming all who desire to learn, regardless of wealth, heritage or previous academic experience. The majority share the common missions of open access and equity, comprehensive program offerings, a community-based philosophy, a commitment to teaching and a commitment to lifelong learning (American Association of Community Colleges, 2003, About Community Colleges Section, ¶ 1).

Community College President: The chief executive officer of a community college. This title is referred to as director by some community colleges.

Urban Community College Locale: A community college located within a central city of a Consolidated Metropolitan Statistical Area (CMSA) or Metropolitan Statistical Area (MSA) having a population greater than or equal to 250,000 or a central city of a CMSA or a MSA having a population less than 250,000. Also, an incorporated, Census Designated Places (CDP) with a population greater than or equal to 2,500 and located outside a CMSA or MSA (American Association of Community Colleges, 2003; National Center for Educational Statistics, Appendix A: IPEDS Code Descriptor, n.d.).

Suburban Community College Locale: A community college located in the urban fringe of a central city of a CMSA or MSA having a population greater than or equal to 250,000 or a central city of a CMSA or a MSA having a population less than 250,000 (American Association of Community Colleges; National Center for Educational Statistics, Appendix A: IPEDS Code Descriptor).

Rural Community College Locale: A community college located within any incorporated place, or non-place territory designated as rural by the Census Bureau or an incorporated place or CDP with a population of less than 25,000 and greater than or equal to 2,500 and located outside a CMSA or MSA (American Association of Community Colleges; National Center for Educational Statistics, Appendix A: IPEDS Code Descriptor).

Limitations

There are several limitations for this study. First, due to the subjectivity of the study, the current moods or attitudes of the respondents may influence the response. Second, information collected from the study was limited to those questions asked from the survey

and may not elicit additional information that could be obtained by other research methods. Third, the study was limited to the technology available through collected data via the Internet, omitting other possible methods of data collection. Fourth, there existed an element of bias of my conceptualization of the problem and the various fundamentals applied. Fifth, the study was limited to community college presidents and does not reflect the opinions of other key administrators within the higher education arena.

Organization of the Study

This study is presented in five chapters. Chapter 1 contains the introduction, statement of the problem, purpose of the study, and significance of the study. Chapter 2 features a comprehensive examination of the relevant literature on stress and wellness, as well as a discussion of the repercussions of stress at the administrative level. Additionally, the review of the literature includes an examination of the dimensions of wellness for a healthy lifestyle. A detailed methodology of the study is provided in Chapter 3. Chapter 4 provides a comprehensive illustrative and narrative description of the findings of the research. The conclusions and implications of the findings, recommendations, future study, and suggestions for college presidents and those aspiring for this role are presented in Chapter 5.

CHAPTER 2

REVIEW OF LITERATURE

Stress is an inescapable part of human life. External stressors increasingly have become the norm rather than the exception in the lives of the American public. Approximately thirty years ago, Pelletier (1972) reported that between 50% and 70% of all illnesses and diseases in American were stress related. Akande, Van Wyk, and Osagie (2000) reported that although people in the world were becoming healthier, many continued to experience disease, causing an increase in prominence of visits to physicians. Many of those with no reported illness were not actually well. Productivity and well-being were compromised by stress, producing low levels of energy and vitality that prevented the maximization of life's daily potential. To get the benefit of full health and lifestyle improvement, individuals must incorporate daily wellness practices throughout his or her lifetime (Akande, Van Wyk, & Osagie).

To underpin the context of this research, bibliographies and references of major works on stress and certain wellness practices that play a role in our vulnerability to stress were reviewed. These practices, including physical, social, spiritual, mental, and emotional components of life, were reviewed to show their intertwining and connection to stress. The topics to be considered included the stress concept; wellness practices including physical, social, emotional, and mental wellness; benefits of lifestyle changes through wellness practices; workplace stress; stress among leaders; achieving balance for community college presidents; and new found challenges for community college leaders in the 21st century.

The Stress Concept

“The precise definition of stress eludes definition, and there is no consensus as to what stress encompasses” (Pollock, 1988, p. 381). Seaward (2001) reported the phenomenon of the word stress as relatively new in relationship to the history of humanity. A definition of stress proposed by Selye at an international congress on stress in 1976 was that “Stress is the nonspecific response to a demand” (Selye, 1979, p. 63). During the past three decades, stress has become a common word in most households. Seaward (2001) defined stress as “the inability to cope with a perceived (real or imagined) threat to one’s mental, physical, emotional, and spiritual well-being, which resulted in a series of physiological responses and adaptations” (p. 4). Alamgir (2001) departed from this definition by reporting that stress could be a source of energy when used effectively. He said that a certain degree of stimulation is needed to face challenges; low to moderate stress levels actually increased productivity, and the experience a person had with successfully coping with past stressors, the easier it was to deal with future problems. However he agreed with other researchers such as (Selye, 1975; Borysenko, 1991) that the changes in the body occurring from too much stress could have detrimental effects (Alamgri). Posen (1995) reported that the “manifestations of stress are numerous and varied but they generally fall into four categories:”

Physical: fatigue, headache, insomnia, muscle aches/stiffness (especially neck, shoulders and low back), heart palpitations, chest pains, abdominal cramps, nausea, trembling, cold extremities, flushing or sweating and frequent colds.

Mental: decrease in concentration and memory, indecisiveness, mind racing or going blank, confusion, loss of sense of humor.

Emotional: anxiety, nervousness, depression, anger, frustration, worry, fear, irritability, impatience, short temper.

Behavioral: pacing, fidgeting, nervous habits (nail-biting, foot-tapping), increased eating, smoking, drinking, crying, yelling, swearing, blaming and even throwing things or hitting (Posen, pp. 12-13).

Selye (1975) reported that Walter Cannon, a noted Harvard physiologist, referred to the sequence of physiological changes that take place when stress occurs as the “fight-or-flight” response. Cannon originated his research on stress in 1914 through a series of animal studies. He observed the changes in body mechanisms that took place in response to anger, hostility, and the need to defend territorial boundaries. Those reactions included increased heart rate, blood pressure, ventilation, free fatty acid mobilization, blood coagulation, perspiration, and muscular strength. Additionally, Cannon observed decreases in digestion and abdominal blood flow. Seaward (2001) reported that in recent years in America, there remained relatively few threats from physical sources, however those threats manifested from thoughts perceived by the mind and the ego, had increased.

Similar research by Borysenko (1991) showed the outcome of exogenous and endogenous antigens on the immune system with increased stress. His premise on the relationship between stress and the mind-body-spirit characterized several physiological changes that occur with the release of an abundance of stress hormones. He suggested a link between the mind’s ability to perceive a stressful situation and changes in the immune system. Supporting this speculation was the work of Maes et al. (1998) who examined 38 medical students several weeks before an exam and again on the day of the exam. He

determined that psychological stress could suppress or enhance immune function, depending on the nature of the stressor and the immune variable under consideration.

Noted as the father of stress, Selye (1979) noted the distinction between harmful stress or distress, and beneficial stress or eustress. He found that harmful stress (distress or simply stress) causes feelings of helplessness, frustration and disappointment, while beneficial stress (eustress) generated feelings of achievement, satisfaction, and fulfillment. Building on these findings, Long (1995) reported that the workplace, while providing many intrinsic rewards, could have detrimental effects on mental and physical well-being. Selye (1979) reported that it was the reaction to stress that determined whether the stress was beneficial or detrimental. He added that reactions to stress were learned by watching others, modeling their reactions, then developing habits that determine ones own reactions to stress (Selye, 1979).

Another pathway cleared by Selye (1979) in the history of stress research was that of the *General Adaptation Syndrome* (GAS) theory, which proposed that a person goes through three stages in a stress response. The initial stage was called *alarm reaction* whereby there was considerable corticoid secretion produced to fight the imposed stress. If the stress was prolonged an individual experienced the *stage of resistance*, in which he or she adapted to the stressed state, with little additional corticoid production. Finally, when adaptive capabilities weaken, the individual moved into the “exhaustion phase.” Selye found that movement through the stages of the stress reaction had the potential to lead to *stress diseases* such as heart disease, tumor formation, or depression (Selye, 1979). Furthermore, in a study measuring the collective responses to exercise, de Vries, Bernards, de Rooij, and Koppeschaar (2000) found that that stress hormones are released at different levels thus

further confirming the role these hormones have in preparing the body for activity and maintaining homeostasis.

Several researchers have differentiated two classifications of stress: acute stress and chronic stress. Acute stress was most common, arose quickly, was quite powerful, and was short-lived. It generally surfaced from recent demands or anticipated demands of the near future (Miller & Smith, 1993; Seaward, 2001). Experiencing an excess of acute stress could be quite exhausting, leading to psychological distress, backaches, headaches, upset stomachs, and other symptoms. Some lifestyles, with much disorder and chaos, encountered frequent acute stress. With reactions of irritability, anxiousness, tenseness, and short-temperament, those responses sometimes appeared hostile (Miller & Smith, 1993).

In contrast to acute stress, Miller and Smith (1993) found that chronic stress was experienced for prolonged periods and was less intense. Described as a grinding stress with long-term detrimental effects on the body, they determined that this type of stress arose from inexorable demands for long periods and was most frequently linked with disease, because of a constant elevation of stress levels (Miller & Smith). Long (1995) identified health problems caused from stress included “depression, anxiety, general mental distress symptoms, heart disease, ulcers, and chronic pain.” (p.1). She noted “gender, age, ethnicity, income, parenting, marital status, and coping skills” (p. 1) should be accounted for when considering distress. Building on this information, Vitaliano et al. (2002) studied 152 married caregivers for 30 months and found a link between chronic stress and heart disease. “First, chronic stress is associated with psychological distress; factors such as unsatisfactory social support and poor coping skills may contribute to the link.” (p. 418) Additionally, chronic stress combined “with poor health habits such as a lack of exercise and poor diet, and ... changes in

body composition and chemistry- known collectively called the metabolic syndrome - produce heart disease” (p. 418). A 30-month follow up to the study found caregiver men had a greater occurrence of heart disease than did noncaregiver men (Vitaliano et al.).

Ben-Ari (2000) reported that many studies examining the possible moderating effects of exercise and physical or aerobic fitness on stress-related symptoms focused on major rather than minor life events. The American Psychological Association (APA) (2002) reported the snowballing effects of minor, everyday stresses such as having car trouble, traffic delays, meeting deadlines, disagreements with staff, coworker conflicts, or fewer benefits contributed to the development or severity of health problems including anxiety and depression. These minor irritants were more likely to cause health concerns than those *major life events* such as the death of a spouse, divorce, or loss of a job (Ben-Ari). Additionally, Griffith and Griffith (1994) reported that health concerns from stress could increase one’s susceptibility to infection and cancer by causing a decline in the immune system. Their report further indicated that stress hormones present in the bloodstream might promote the growth of cancer cells and certain viruses. Wijnberg and Reding (1999) agreed that modern psychological literature focused on chronic stressors (commonly called hassles) as opposed to stressor events, as the major cause of health concerns. Stressful events were major occurrences such as death of a spouse, loss of one’s home, burglary, flooding, divorce, or children leaving home. Hassles were defines as “irritants that can range from minor annoyances to fairly major pressures, problems, or difficulties” (Kanner, Coyne, Schaeffer, & Lazarus, 1981, p.2). Supporting this research, Sundin and Horowitz (2003) conducted a meta-analysis of 66 studies to analysis the psychological relationship between major life events such as age and gender, and stress symptoms. They found that the type of event

produced different levels of stress, whereas gender and cultural difference were relatively insignificant.

Moreover, Mustacchi (1990) suggested that stress was an emotional condition where by there was “interaction of a particular external environment and a particular person” (p. 1). “Perceived to be an imbalance between environmental demands and a person’s ability to meet” (p.1) those demands, not everyone reacted the same way to all circumstances (Mustacchi). Similarly, Vattano (1978) described differences in individual reactions to stress. He found that some people control and adjust well to situations otherwise overwhelming to most individuals. A person’s ability to manage stress depends on several personal and situational factors (Vattano).

One such personal factor, discovered through the research of cardiologists Friedman and Rosenman (1974), was that personality and behavior could intensify or create stress. Referring to this type behavior as Type A personality, these renowned researchers determined that this behavior was a greater predictor of heart disease than all other risk factors combined. They found that Type A personality traits included a sense of time urgency, competitiveness, impatience, rapid speech patterns, calculating control, and often abrupt. Contradictory to this, those that do not exhibit this behavior have Type B personalities, exhibited by characteristics such as patience, non-competitiveness, detailed, and a lack of need for control (Friedman & Rosenman). Hundreds of studies, such as those by Haynes and Mathews (1988); Ganster, Sime, and Mayes (1989); and Ganster, Schaubroeck, Sime, and Mayes (1991) have been published as a result of the 1974 work of Friedman and Rosenman, many of which related Type A behavior to stress. Hagihara, Tarumi, Miller, and Morimoto (1997) reported that Type A behavior created greater stress

and physical and mental strain at the workplace than Type B behaviors. Having a different perspective of the workplace, Type A individuals were inclined to work longer hours, have more overtime, complete more quantitative work, and view the workplace as more stressful than Type B personalities. These authors revealed that Type A workers reported heavy workloads and high stress (Hagihara et al.).

Seaward (2001) reported that Friedman and Rosenman's (1974) association of Type A behavior and coronary heart disease happened quite inadvertently. They observed that some of their patients always looked at their watch and sat on the edge of their seats in the waiting room. The researchers referred to this type of behavior, indicated by a rushed and hurried lifestyle, as the *hurried sickness*. This landmark study, referred to as the *Western Collaborative Groups Study*, examined over 3,500 subjects over an eight-year period. The researchers confirmed that Type A behavior was a predictor of heart disease (Seaward).

Stress-related illness is a major cause for concern, in terms of its impact on both individuals' lives and the productivity of educational institutions and other organizations. Rosch (1991) reported that corporate profits and work productivity in terms of cost due to stress-related factors are significant. He noted that stress-related worker's compensation claims have soared, with 90% of claims awarded. The fiscal cost of occupational stress is \$200 billion annually and 90% of all office visits are stress related, as are 60% to 80% of all industrial related accidents (Rosch). Likewise, Goetzel et al. (1998) studied the expense of health care for those with sedentary lifestyles and other risk factors and found an increase in both the number and magnitude of health care related expenses. As shown by Work and Family Connection (2002) in a study conducted by the Segal company, most companies are concerned about stress resulting in low morale, absenteeism, high turnover, and low

productivity. Most perceive better communication as a solution to the problem of stress, emphasizing the importance of stress management workshops or resources (Work and Family Connections). However, most stress management offerings at the corporate or industrial level fell short of influencing change in lifestyle behaviors. They were either too narrow in focus or too brief to be effective. Of the few that are effective, there is a decline in absenteeism and an improvement in morale and productivity (Rosch).

Wellness Practices

Wellness practices defined in this study include spiritual, mental/emotional, physical, and social health practices. A sum of those wellness practices, termed well-being, was defined by Spirduso (1995) as a “theoretical concept that included the ideas of contentment, morale, and happiness” (p. 305). As reported by Covey (1989), most humans fell into certain social paradigms (or ways of thinking), which determined who we were and our behavioral patterns. Covey proposed that people were above the animal world of stimulus/response, possessing the endowments of freedom of choice, self-awareness, imagination, conscience, and independent will, thus making us uniquely human (Covey). The preferred health behaviors from that freedom should include those that promoted wellness. As reported by Powers and Dodd (1997) the elements of wellness did not perform in isolation; constantly interacting, they were only achieved by a balance of physical, intellectual, social, emotional, and spiritual health.

Spiritual Wellness

Cavendish et al. (2000) defined spiritual growth as a dynamic process in which the awareness of meaning, purpose, and values continually expand. Similarly, Insel and Roth (2002) conveyed that benefits from spiritual health occurred from the possession of “a set of guiding beliefs, principles, or values that give meaning and purpose to life” (p. 2). They said that spiritual wellness included love, compassion, forgiveness, selflessness, joy, and fulfillment. Moreover, Cavendish et al. reported that many people shared the common bond of spiritual wellness and noted that organized religion was a pathway for developing spiritual health.

Insel and Roth (2002) presented several ways to find meaning and purpose, such as through nature, art, meditation, and good deeds. Likewise, Kabat-Zinn et al. (1992) reported that “A group mindfulness meditation training program can effectively reduce symptoms of anxiety and panic and can help maintain these reductions in patients with generalized anxiety disorder, panic disorder, or panic disorder with agoraphobia.” Neuman (1989) suggested that spirituality was the “rhythmic interplay of order and disorder resulting in a higher awareness and consciousness” (p. 2). “At every age...people seem to feel better if they have beliefs about the ultimate purpose of life and their own place in the universe” (Insel & Roth, p.59). Cavendish and his co-authors, (2000) said that understanding the concept of spirituality from a holistic perspective enhanced the ability to relate to and understand others.

Evans (2001) reported the reflection of spiritual meaning in the lives of many today. She said there was a desire to find a deeper, more authentic self, and individuals had a passion for unity. Krause, Ingersoll-Dayton, Ellison, and Wulff (1999) found that religious doubt led to diminished feelings of well-being and to greater distress. Similarly, Blakeney

and Blakeney (1992) suggested it was more difficult to resolve stressful daily issues during periods of religious doubt; the added stress resulting in physiological effects. Santorelli (2000) reported the detrimental effects of religious doubt were greater for younger than for older people. He noted that spirituality was on the rise, and was viewed as longing for a greater sense of connectedness to the whole, the universe, or to the divine. A new viewpoint on the use of spirituality as a means of coping with stress, termed *mindfulness*, was described as an internal discipline that taught how to use *awareness* for coping with the challenges faced in everyday life.

Evans (2001) suggested that paralleling the rise in spirituality was a marked rise in material affluence, yet this affluence had not satisfied the deeper part of individual's being. She reported that a 1994 *Newsweek* poll found 58% of those surveyed responded positively to the idea for a need to experience spiritual growth. She noted that the percentage rose to 82% in a 1998 repeat study. She said that being spiritual in the new millennium did not necessarily mean attending church. Church attendance was down to 26%; it was 42% in 1965. Churches faced a crisis in membership and funding. However, she explained that low attendance did not mean there was a decline in believers; 95 % of Americans said they believed in God and 75% believed in miracles. Rather, what people believed had changed from a God who was a distant formal figure, to one who was personal, intimate, and authentic for them (Evans).

Cavendish et al. (2000) reported that the terms religion and spirituality, once used interchangeably, were no longer considered to have the same meaning. He explained that religion, providing the framework for beliefs and rituals, was both a concept and a social system. A formal avenue for expressing belief in a higher power, the practice of religion had

moved toward more individuality. For example, many people formed their own meaning rather than using a predefined set of guidelines from a formal religious order (Cavendish et al.).

Roof (2001), chairman of religious studies at the University of California, reported the prevalence of a transformation of religious attitudes in contemporary America with the baby boomer era. The understanding of religious faith and spirituality by this group was often more like an emotional personal experience, with many various beliefs fitting under the heading of spirituality (Roof, 2001).

Roof (1993) stressed that the post-modern vision of religion was just beginning. The interweaving and multi-layering of beliefs and practices were informed by many different elements such as “Eastern meditation, holistic health, ecology, feminism...as well as more traditional Judeo-Christian fundamentals” (p.12). This had resulted in individuals having a pluralism of many religious expressions, finding usefulness in each element for coping in fast-paced lifestyles. Roof (1993) believed that the world was still creative and promising, and was opposed to the “radical deconstructive post-modern position” (p. 11). He reported “that stories were still being told in search of coherence and meaning—but they were also being rewritten” (Roof, 1993, p. 11).

Additionally, Roof (1993) reported that there was a new language in the field of religion today. Words such as “a la carte, pastiche, collage, and patchwork” (p. 8) religiosity described the multifaceted religious convictions that society relied upon to resolve the complexities of today’s lifestyles. Roof (1993) noted the goal throughout life was not to resolve the challenges altogether of this complex world, rather to have the resilience to resolve repeatable challenges in different ways at different times. This resilience, with no

exact design, would require “themes such as love, initiative, creativity, and the search for meaning” (p. 9).

Roof (1993) also noted that the image of God varied greatly from person to person. Individuals had moved toward a more accessible conception of God, one less judgmental and more comforting. He noted that “we were always on holy ground...every action, task, or relationship had a sacred dimension to it” (p. 13).

Physical Wellness

Covey (1989) reported that “the physical dimension involves caring effectively for our physical body-eating the right kinds of food, getting sufficient rest and relaxation, getting regular medical exams, and exercising on a regular basis” (p. 289). The proper amount of energy and nutrients required depends on gender, age, height, weight, and growth rate (Akande et al., 2000).

Many researchers have reported the positive psychological benefits of regular physical exercise. Such benefits have included reduced anxiety (Cameron & Hudson, 1986); reduced depression (Folkins & Sime, 1981); improved mood (Thirlaway & Benton, 1992); and suppressed anger (Buchman, Sallis, Criqui, Dimsdale, & Kaplan, 1991). The later group of researchers indicated physical exercise may reduce the risk of coronary heart disease by altering the way anger was expressed. Confirming this finding, Fletcher et al. (1996) reported that a sedentary lifestyle is a risk factor of heart disease. “Regular aerobic physical activity increases exercise capacity and plays a role in both primary and secondary prevention of cardiovascular disease.” (p. 1). Aerobic activity, whether short or long term, improve psychological functioning (Fletcher et al.). Likewise, the Center for Disease Control (1987)

found “a statistically significant inverse association between physical activity and CHD” (p. 426) as 32 or 47 comparisons (68%) were confirmed.

Castro, Wilcox, O’Sullivan, Baumann, and King (2002) studied 100 women in high stressed situations and found that regular exercise greatly improved perceived stress, burden, and depression. Similarly, Hassmen, Koivula, and Uutela (2000) examined the exercise habits and perceived fitness of 3403 men and women and found that individuals who exercise at least two or three times a week experienced less depression, anger, cynical distrust, and stress than those not exercising at all or fewer than two times per week. Additionally, the exercisers perceived themselves as healthier, more fit, and had higher levels of a sense of coherence and social integration than those exercising less often (Hassmen et. al, 2000). Among individuals with major depressive disorder Babyak et al. (2000) found that exercise therapy was practicable and significantly therapeutic especially if exercise is continued over time.

Moreover, Bouchard, Stevens, and Shephard (1994) and Pate et al. (1995) reported numerous health benefits of regular physical activity, such as reduced risk of some cancers, cardiovascular disease, obesity, musculoskeletal disorders, psychological distress, and depression. They found that the cost of inactivity had skyrocketed to billions of dollars annually, and was greater than the cost of all other cardiovascular heart disease risk factors except elevated serum cholesterol levels. To counteract this concern, the American College of Sports Medicine [ACSM] (1990) emphasized moderate-intensity activity, building on recommendations for vigorous exercise to improve fitness and reduce stress. Recommendations included the accumulation of between 20 and 30 minutes of daily moderate intensity activity, three to five days per week (ACSM, 1990).

Piani and Schoenborn (1993) reported that the 1990 National Health Interview Survey (NHIS) found approximately one third of the U.S. civilian working population of adults met this recommendation for exercise. The NHIS findings indicated that women, older adults, persons with less than 12 years of education, and members of racial/ethnic minorities were most likely to be inactive during leisure hours. They also found that many of these individuals were getting at least one hour of moderate intensity exercise daily at work due to the nature of their employment, therefore offsetting the inactivity level (Piani & Schoenborn). Dinger (1999) analyzed the DHHS's 1996 statistics and reported that 25% of the adult population in America was sedentary, 15% exercised occasionally, and 22% engaged in light to moderate activity at least 30 minutes per day. A national health objective for DHHS for the year 2000 was to lower the percentage of the sedentary group to 15%.

Justifying these low statistics, Dinger (1999) reported many do not exercise because they do not perceive themselves as having the stamina or the time to engage in the recommended one hour of moderate exercise. Moreover, Toneguzzi (1994) said most people believed no benefit could be gained if recommended exercise levels were not maintained. Instead, they choose not to take on the challenge of physical activity at all. Dinger also suggested that people were sedentary because of today's comfortable lifestyle. He said that conveniences such as television, remote control, elevators, and riding lawn mowers had invited a sedentary lifestyle. He cited barriers such as a hectic pace and other social and environmental barriers resulting in little time for exercise. Dinger added that ACSM recommended safe neighborhoods with lighted walking and biking paths to encourage physical activity for all Americans.

Gaesser (2002) supported the concept of Americans being overwhelmed by the ACSM recommendation for exercise. Gaesser realized these guidelines were equally as overwhelming as the 1990 guidelines. With recommendations of 20 to 60 minutes of aerobics most days of the week, plus regular strengthening and stretching exercises, Gaesser wrote that these guidelines could actually discourage fitness. In 2000, he found that by including two or three 10-minute workouts per day, fitness levels could substantially be improved. The study group of 32-to-68 year olds reduced heart disease risk by 20%, while higher-risk members lowered their risk by 40%. Termed “sparks,” this 10-minute high intensity workout produced much benefit. Gaesser reported that sparks could easily be incorporated into a hectic schedule, therefore enhancing the benefit for the psychological reduction of stress (2002).

Giles-Corti and Donovan (2002) researched the influence of individual, social, and physical environments on exercise. They found that physical determinants were secondary to individual and social decisions made about exercise. For example, rather than traveling to fitness facilities, most respondents preferred informal areas close to home such as streets (45.6%), public open spaces (28.8%), and beaches (22.7%). Nevertheless, accessible facilities were used when available, which demonstrated their necessity. However, these authors added that accessibility may not be a great enough motivator for influencing the recommended increase in physical activity (Giles-Corti & Donovan).

Much research on the benefits of physical activity on stress has been examined. For example, Schafer (1996) found the following psychological and physiological benefits of aerobic exercise on stress: released muscle tension, reduced stress induced adrenaline, decreased negative thoughts, calmed sympathetic nervous system, lowered baseline tension

levels, released contained emotions, heightened internal control, and stabilized mood.

Stoppler (2002) found that the benefits of exercise in the reduction of stress were numerous.

She reported that these benefits included elevated mood, weight loss, reduction in blood pressure, relieved insomnia, and maintained physical fitness. She reported that Waehner emphasized the excellent stress reducing benefits of exercise. Through exercise, Waehner said that endorphins were produced, which naturally relieved pain and induced feelings of well-being and relaxation. Additionally, she concluded that engaging in exercise, away from a busy schedule, allowed personal time for self- rejuvenation (Stoppler).

Carmack (1999) from the University of Texas M. D. Anderson Cancer Center examined the effects of leisure-time physical activity on symptoms of stress in 135 undergraduates. She reported that minor, everyday stress contributed to physical and mental health problems and found that leisure physical activity might guard against anxiety and physical symptoms of stress. Students completed questionnaires measuring recent minor stressful events, major life events, moods, physical complaints and symptoms, physical activities, and general health. Treadmill tests measured cardiorespiratory fitness. Carmack's findings indicated that engaging in activities such as running, basketball, or aerobics classes - but not aerobic fitness by itself - improved the physical symptoms and anxiety associated with minor stresses. She noted that these activities did not improve depression and suggested that the stress-buffering effects of exercise increased proportionally with increased participation in physical activity, rather than with the intensity with which it was performed.

Paffenbarger et al. (1993) examined the exercise program of subjects who averaged 60 years of age and either had never exercised or had been physical inactive for years. In a follow-up study, the group had reduced mortality rates when compared to peers who

remained sedentary, indicating the health benefits of participating in physical activity (Paffenbarger et al). Similarly, Nathan (1999) reported that "...the results are clear: exercise helps control weight, lowers blood pressure, ...raises good HDL cholesterol, and protects against cardiovascular disease. It also reduces stress, increases strength and flexibility, and enhances one's overall well-being." (¶ 1)

Daley and Parfitt (1996) reported that increased physical activity was crucial to helping buffer the effects of stress in the fast paced world. They added that by incorporating exercise throughout the day, the daily hassles of the workplace could be diminished. Dinger (1999) reported taking simple measures to increase daily activity, such as walking instead of driving whenever possible, parking in spaces away from the entrance to buildings, using stairs whenever possible, and participating in a variety of recreational activities. These measures included walking the dog or working in the yard (Dinger).

Brown and Siegel (1988) investigated the negative effects of stress and found a decline in these effects with the increase of physical activity. Akande et al. (2000) reported that the human body, designed for an active life, benefited from exercise as an empowerment and energy source. The co-authors reported that exercise served as a mental release, reducing anxiety and hostility, which in turn improved self-esteem, self-confidence, assertiveness, and stress. Moreover, they added that exercise normalized the brain's response to stress, impacted mood, and allowed the body to deal with stress (Akande et al.).

In addition to these variables, Collingwood (1976) reported that physical activity played an important role in maintaining effective personal development skills. Studying the effects of the inclusion of physical activity in interpersonal skills workshops, Collingwood

noted that workshops incorporating physical activity were more effective than those without physical activity, further relating the benefits of exercise to coping skills.

Social Wellness

Wehba (2000) reported that becoming overwhelmed with life often created stress. Lifestyles can become very complicated and complex. Wehba noted that a feeling of dissatisfaction and a depressed lifestyle were created from having too many possessions and obligations. Accordingly, Whiting (2002), reported that a sense of social support was vital to the workplace. She said that employee commitment to an organization was greatly enhanced when a sense of well-being existed within the organization. She added that low commitment usually resulted in a lack of shared vision, a high turnover rate, and decreased productivity. Moreover, Wehba suggested that individuals could add to the personal sense of well-being by uncluttering daily schedules, setting priorities and frequently including time for family, neighbors, and friends. “Keep the family close by staying involved in each other's lives. Count blessings such as family, good health, a place to live, understanding colleagues, and sincere friends...these bring the greatest life satisfaction” (Wehba, p. 136).

Furthermore, Cohen and Wills (1985) established that social support was recognized as a buffer for work stressors; adding that the buffering effects differed significantly with respect to the type of social activity. In a later study, the value of social practice was studied by Park, Cohen, and Murch (1996). They assessed 506 college students on the validity and reliability of the Stress-Related Growth Scale (SRGS), which examined determinants of stress-related positive outcomes. They found the predictors of these outcomes included variables such as basic religion practices; number of socially supportive others; social support satisfaction; understanding and acceptance; and recent positive life events.

Related to this study, Hagihara et al. (1997) examined certain types of workplace support such as assistance in work, emotional reassurance, and support in scheduling from coworkers or bosses. They found that these types of support interacted with stresses and produced stress buffering effects. They determined that certain behavioral types such as Type A personalities often saw social support as a distraction and a stressor because it prevented concentration on the job (Hagihara et al.).

Emotional and Mental Wellness

Powers and Dodd (1997) reported that the cornerstone of emotional wellness was emotional stability. They defined emotional wellness as the way someone felt about themselves and others and was demonstrated by the degree of coping skills displayed in everyday interactions and surroundings. Emotional wellness encompassed elements such as self-acceptance, optimism, trust, self-esteem, self-control, satisfying relationships, and the ability to share feelings (Powers & Dodd; Insel & Roth, 2002).

Spiegel (1999) reported that expressing feelings and emotions could improve health, although much of modern medicine had treated the mind as if it were reactive but otherwise disconnected to the human body. Similarly, *Discourse*, the significant work of the philosopher Descartes, (1596-1650) explored “methodical doubt” whereby he doubted everything including his own existence. His coined phrase “I think, therefore I am” (Ozmon, & Craver, 1998, p. 21), paralleled much of modern medicine’s thinking that the mind was “disconnected from the human body” when determining and understanding the causes of stress. Challenging this philosophy, Ezoie and Morimoto (1994) found associations between behavioral lifestyle and mental health status. They recommended intervention programs

designed to improve physical health and ischemic heart disease and cancer, for the improvement of mental health (Ezoe & Morimoto).

Insel and Roth (2002) reported that people differed in levels of emotional maturity. These co-authors discussed the humanistic psychological work of Maslow (1908-1970) whose theory hypothesized basic human needs. Maslow suggested that some needs take precedence over others. His *hierarchy of needs* premise, positioned survival at the *bottom of the ladder*, and of high urgency, and demonstrated that individuals must address this need before attaining higher levels of living. Based on his research of visibly successful people such as Abraham Lincoln, Eleanor Roosevelt, and Albert Einstein, Maslow said that these people had lived life to the fullest and shared certain emotional qualities such as they were realistic, possessed a positive self-concept, a high self-esteem, and practiced autonomy. Actively practicing emotional wellness, these people had a capacity for intimacy, creativity, and had a renewed application of what went on around them. Long-term emotional wellness must be fostered to keep stress at a minimum, thus enabling concentrate on today's challenges, (Insel & Roth).

House and Aditya (1997) reported the *Cognitive Resource Theory* (p. 463), which reputed that emotional reactions to stress were universal. These co-authors anticipated that this theory may not hold true in societies that believed in emotional control, where members were taught to suppress emotions. With widespread workplace diversity, unpredictable reactions to potential stressors because of cultural differences could create unidentifiable barriers to organizational goals (House & Aditya). Offering a solution to this growing diversity issue, Fiedler (1996) argued the need for the incorporation of stress management

programs in leadership training programs to increase leadership ability and awareness of the differences in diversity and emotion.

House and Aditya (1997) reported that normal behavior expressed by the leader depended on the situation that could vary from a high degree of emotion or calmness to a friendly or an unfriendly manner. They said the variance in behavior resulted from personality styles and stress experienced by the leader and that wellness practices could serve as buffers for this stress-induced behavior (House and Aditya).

Additionally, Wen (1999) examined the self-perceived personality styles of community college presidents and found no relationship between their leadership style and personal characteristics such as years at president position or influence on culture. He did find that the longer the tenure, the greater the likelihood of displaying one or two leadership styles. He found that the more flexible presidents were in their leadership style, the more influence they had on the external community; adding that the longer in that administrative role, the less flexible they became (Wen).

As noted earlier by Friedman and Rosenman, (1974) the lethal component of the global Type A behavior pattern was the emotional response of hostile aggression and anger. Exercise could greatly control the emotional subcomponents of Type A behavior. Buchman et al. (1991) investigating the relationship between exercise and anger expression in adults, found a negative association of suppression of anger with exercise.

Ezoe and Morimoto (1994) reported various lifestyle factors that were associated with mental and emotional health status. The team discovered a strong negative relationship of favorable lifestyles to psychological distress and components of anxiety, insomnia, and social dysfunction. Regression analysis indicated that mental stress, nutritional balance, eating

breakfast regularly, physical exercise, and working hours were significantly related to the degree of psychological distress for men. For women, mental stress, physical activity, working hours, and cigarette smoking were significant indicators of distress, whereas good health practices were closely related to enhanced, mental health (Ezoe & Morimoto).

Horowitz (1978) reported that through *experiences* a mental picture of who someone was and his or her relationship to the external world was developed. The decision-making process regarding new information was a result of those experiences. Stress was a result of the sorting out of new information that had negative meaning or conflicted with the prearranged mental processes (Horowitz). Supporting this approach to mental processing, Folkman (1997) reported that four types of coping were associated with positive psychological states: positive reappraisal, goal-directed problem - focused coping, spiritual values, and the blending of ordinary events with positive meaning.

Benefits of Lifestyle Changes through Wellness Practices

The American Heart Association reported stress and other controllable lifestyle factors such as cigarette smoking, sedentary lifestyle, and eating foods high in saturated fat and cholesterol were risk factors of heart disease. Ornish et al. (1998) revealed that intensive lifestyle changes reversed the progression of coronary heart disease (CHD). Twenty-eight patients with moderate heart disease were engaged in lifestyle changes; including a low-fat, vegetarian diet, the cessation of smoking, and the stress reducing effects of increased social support and physical activity. The researchers found a 7.9 % overall improvement after five years with the control group having a 27.7% decline in the progression of CHD after the five-year period. A 37.2% reduction in low-density lipoproteins (LDL) or bad cholesterol and a 91% reduction in angina episodes were found. Through this study (named the Lifestyle Heart

Trial) the researchers were the first determine if patients could be motivated to continue lifestyle changes for a prolonged period and to determine the slowing of coronary atherosclerosis without the use of medication (Ornish et al.).

Reese (2001) reported the positive effects of employee productivity and retention from on-site wellness programs. Normally, companies measure the effects of wellness practices by the medical dollars saved; therefore, this unique study demonstrated that productivity and retention were also improved. The company provided on-site fitness centers, company sponsored diet programs such as Weight Watchers International, and flexible schedules for participation in the wellness opportunities. With 17,000 employees, the Des Moines-based Principal Finance Group associated their success to the fact that health promotion objectives were linked with business outcomes (Reese).

Elliott (2002) reported a national growth trend in the number of wellness programs containing a stress management component. He said this trend was a result of health care systems' concern for the high levels of stress related ill health and disease. Elliot said that due to the complexity of determining stress related diseases, health authorities established that the best treatment for these illnesses must be determined on an individual basis, based on the cause of the stress. For example, the individualized stress management required different treatments for different people, such as managing a panic disorder for one individual while another needed marriage counseling. Elliott noted that physicians were attempting to treat lifestyle *triggers* (causes of stress) before disease developed. For example, those stressed from driving to work were encouraged to start walking to work. If their position or place of employment were stressful, they were encouraged to find a less stressful position or change jobs (Elliot).

Elliott (2002) added that researchers and physicians agreed on the cost effectiveness of a generalized approach to stress management. They reported that this approach included educating the public on how to incorporate buffers into their lives, such as increasing quality social interactions, sense of humor, and physical activity. Unsupported by the previously mentioned findings of Ornish et al. (1998) --which reported respondents adhering to lifestyle changes-- the greatest concern of Elliott, was that of long-term behavioral changes. He agreed that the compliance with lifestyle changes such as diet and exercise may alter the responses to stress and the ability to cope, yet his uncertainty remained as to the adherence of those changes (Elliott).

Workplace Stress

Mustacchi (1990) reported that the basic causes of workplace stress were from feelings of insecurity, inadequacy, and pressure from attempting to keep commitments and meet deadlines in the fast-paced work environment. Distress increased from feelings of lack of control, from receiving conflicting directives, and from social isolation. For example, Frankenhaeuser and Gardell (1976) found that individuals working in isolation from others were more stressed. Their study was conducted at a sawmill industry with a belt driven production line whereby employees had little control and little interaction. The coauthors revealed high stress levels among these employees (Frankenhaeuser & Gardell).

Additionally, Awake (1998) reported that a large number of employees were highly stressed by their work environments and that stress had become a global phenomenon. They said that stress was greater for women than men because women manage more responsibilities between home and the workplace. In a national survey conducted by the Northwestern National Life Insurance Company (1992) job stress caused frequent health

problems and less productive in 7 of 10 American workers. Job stress was reported in 46% of employees, 34% had considered quitting their jobs because of workplace stress, and 14% left their job because of stress (Northwestern National Life Insurance Company).

Mustacchi (1990) found that the severity of perceived stress and permanent hypertension had an opposing effect. Although the immediate response to stress elevates blood pressure through activation of the sympathetic nervous system, no permanent association was found. Referring to stress as the *unclean variable*, he suggested that while some jobs are extremely demanding, the familiarity with a job made the work environment less threatening, thus less stressful. Additionally, Weiss, Ilgan, and Sharbaugh (1982) reported that highly stressful events in one's life served as incitement that caused a reexamination of workplace role activities. For example, divorce may cause an individual to question their excessive degree of time and commitment to the workplace, which consequently caused a detachment from home, and resulted in placing blame for the divorce on their job (Weiss et al.).

Related to these studies, Parker et al. (2001) developed an alternate health promotion model for the Department of Defense's workplace. This program combined age-related health practices and spirituality in the context of personal development throughout the lifespan. Incorporating a system of assessments, interventions, and follow-ups, the model encouraged the active involvement in a healthy lifestyle, the evasion of disease and disability, the expansion of mental and physical functioning, and the need for optimistic spirituality (Parker et al.).

Stress Among Leaders

The social scientific study of leadership had been around since the 1930s. Studies abounded on the idea, and trait, behavioral, contingency, and charismatic leadership styles benchmarked advancement of the topic (House & Aditya, 1997). However, the coauthors noted that certain issues critical for stress management among leaders were not examined. For example, the influence of external constituencies on leader behavior and the expression of leader behaviors in various situations have had little exploration (House & Aditya).

One of these issues was the concerns associated with the effects of diversity on leadership (House & Aditya, 1997). The coauthors found that when work teams were from various diverse groups, they experienced diverse dispositions with differing values, beliefs, assumptions, and motives. The significance of these principles, that has long guided the American leadership paradigms and formed the bases of organizational structure, now seemed irrelevant in American organizations. For example, these coauthors said that the achievement of unity and strength was sometimes difficult to achieve for diverse work groups. Diversity issues caused concern for intergroup support and cooperation, the avoidance of conflict, and performance effectiveness, which placed leadership at the reigns of a highly unpredictable and stressful state of affairs (House & Aditya).

Moreover, House and Aditya (1997) reported that the greater the difference in gender, ethnic, racial, religious, historical, and national backgrounds (p.448), the greater the loss of commonality, which resulted in divergence of group norms. They said the directing, controlling, and motivating effects on group members and their association with other groups were disrupted without group norms, resulting in a breeding ground for stress for leaders. “In cultures characterized by norms and widespread acceptance of high power concentration,

subordinates may find job autonomy and reciprocal influences between themselves and their superiors to be incongruent with cultural norms, and therefore stressful and unacceptable” (House & Aditya, p. 448).

Additionally, Corman and Poole (2000) reported the divergence of leadership paradigms as a result of growing stridency among different cultures. Rather than resulting in stressful conflicts, the co-authors suggested several methods to overcome differences. These strategies included the embracement of an outward orientation, being hospitable to all people, studying other perspectives closely, and focusing on the structure of concepts (Corman & Poole).

Community College Challenges

The issues discussed in the preceding section were not uncommon to community college leaders as they coped with similar workplace tribulations. “Core community college principles like accessibility, affordability, and flexibility create stress the way freedom guaranteed by the Bill of Rights simultaneously united Americans and generated tensions among them” (Phillipe & Patton, 1999, p. 9). The complexity of the mission of the community college is an age old phenomenon. In 1985 Deegan and Tillery reported the immense challenge facing the leaders of these institutions which were attributed to unfavorable consequences such as annoyance, frustration, anger, and fear for some leaders. Moreover, in 2002 Cohen and Brawer reported an increased frequency for involvedness of community college leaders, faced with enormous undertaking of being responsive to massive and continual change. These authors painted a picture of a high stress arena that community college administrators must lead, further defining the need for a lifestyle of wellness to enhance coping skills in times of high tension.

There is sometimes job dissatisfaction by presidents of these organizations from a lack of communication with board of trustees and college personnel; the needs and request of these presidents are not being met by these groups (Evans & Honeyman, 1998). Coates (2000) urged that the interaction between the leaders of these organizations and other groups should be maintained. Kuss (2000) stressed the importance of synergy between the president and vice presidents. Because of his or her surmountable responsibility, these leaders must share the vision for and project the same message for the good of the institution (Kuss).

Boggs (2001) reported that a tremendous challenge for community college leaders was that of the acceleration of the information age. Boggs, President and CEO of the American Association of Community Colleges (AACC), said that colleges struggled for resources to upgrade computer equipment and laboratories, and were faced with a shortage of qualified technology faculty and staff. He noted that many of these individuals obtained higher paying jobs because of their skill level “Advances in technology are transforming society like no other change in history (p. 20).” Threatened by the influx of skilled technology workers from other countries, referred to as the Digital Divide, many Americans were denied these jobs because of emerging societal problems. Boggs (2001) said that community colleges were the most likely solution for this growing challenge because of their strategic locations in rural and inner-city areas. Positioned to help bridge the divide, community colleges were essential resources to upgrade computer skills across America and must accept the challenge of doing so (Boggs, 2001).

Additionally, the US Department of Agriculture (2002) reported the critical economic diversification issues in rural communities that must be addressed by the community college. These issues included variables such as workforce development, immigration, and an aging

population. This information is supported by Dormal and King (1988) who reported the limitations of small rural institutions in the services they had available to meet the needs of the diverse population, as compared to urban areas. A lack of housing and public transportation, coupled with lengthy driving distances due to the geographic location of the service areas for these colleges, left commuting problems. These coauthors reported results of low enrollment headaches for the leaders of these organizations (Dormal & King).

Schuetz (2002) supported this issue by reporting that “diversity of the college-going population will surge in the coming decade, and community colleges will be pressed to meet a broader, more dynamic range of student needs” (¶ 2). The way in which community college leaders... “handle emerging demographic and socioeconomic challenges will help shape the quality and availability of low-cost, open-access higher education in America for years to come” (Schuetz, ¶ 3).

Carew (2001) added that community college leaders must be flexible and adaptable to stay abreast of the accelerating pace of change and to maintain a competitive advantage. Evelyn (2001) reported that the incubation and growth of community colleges in the 1960s has resulted in a graying workforce, as charter employees of many of these institutions face retirement, forcing the president to search for replacements for senior employees. An estimated 80% of the presidents themselves will retire in the next decade (Evelyn). Additionally, Carew reported that community colleges faced the challenges of changes from “student enrollment patterns, workforce needs, student populations, curriculum requirements, funding allocations, financial resources, and services provided” (Carew, p. 12). Moreover, he added that the ever-changing challenges created additional pressure for the already overwhelmed president, which left little opportunity for focusing upon personal needs.

Gleazer (1980), former president of the American Association of Community and Junior Colleges (AACJC), wrote that community colleges were more than just a traditional college and should provide a variety of services to all people. This challenge further supported the idea that community colleges were highly complex and presented a potentially stressful workplace for administrators and employees (Gleazer).

In a report from the PROBE Institutional President Survey, Duea (1981) examined the amount of time college and university presidents expended on specific responsibilities, the importance placed on these responsibilities, and the stress associated with them. He found that presidents of public institutions associated greater stress with governing board relations, while presidents of private institutions found alumni affairs and fund raising to be a greater stress. Duea said that both groups of presidents reported a high degree of stress from planning and administering the budget, and that fiscal matters and funding sources generated the most stress. Both groups rated student affairs as low stressors, not because of the lack of concern for this area, rather because other personnel were generally in charge of this responsibility. Female presidents associated less stress than their male counterparts in this area (Duea).

Ballentine (2000) found that the tendency to select someone similar to former presidents and gender stereotyping inhibited women in general from attaining top administrative positions. Recognizing that presidents were generally satisfied with their job, Murray, Murray, and Summar (2000) found that community college presidents have some role conflicts. Additionally, Giannini (2001) reported an increase in political demands, unpredictable budgets, and cultural changes causing stress for community college leaders.

The Balancing Act for Community College Presidents

Duea (1981) suggested that training programs for administrator preparation were key tools for coping with daily stressors. These programs should include time management skills and be ever astute of budget components from both traditional and non-traditional sources related to administrative planning. Program emphasis should include organizational and managerial skills in the area of relationship building with governing boards and personnel, especially in view of the fiscal consequences of enrollment declines (Duea).

Smith (1996) reported ideas shared by community college presidents at an annual retreat sponsored by the Presidents Academy of the American Association of Community Colleges. The conference theme revolved around personal and professional pressures and ways to keep a balanced life. Smith (1996) reported the presidents brainstormed ways to make the workplace less stressful and produced many creative ideas. One idea included delegation to other employees, which allowed these employees to become risk takers. Other suggestions included trusting employees, sharing in their spotlight as a team member, relaxing and visiting with colleagues and with the local patrons. Another suggestion by the group was the engagement in creative writing at home as an outlet for stress and working from home on occasion. The group of presidents reported becoming consonant of one's values and doing the best job possible at balancing quality time for work, family, and self. Additionally, an awareness that the behavior of the president served as a model for values within the organization was imperative. For example, recognizing and prioritizing issues such as supporting faculty with demands of children or family was most important to good relationship building and the reduction of stress (Smith, 1996).

Smith (1996) reported that the president must know how to organize, must set aside time for renewal, and most importantly, must keep a sense of humor blended with humility, which served as the foundation for good communication and stress free living. He added that community college president were acutely aware of the highly stressed and rapidly changing world, and their personal mission should be to learn to be personally responsible for self and to improve upon balancing what they did. As one president phrased it, “The CEO can only perform at high levels when the balancing act is successful” (Smith, 1996, p. 3).

New Found Challenges in the 21st Century

American leaders were faced with new sources of stress as they moved into the 21st century. Dealing with today’s societal problems such as terrorism, violence, and theft are a few of the events threatening communities and schools throughout America. The American Psychological Association (2002) reported the widespread feelings of fear and helplessness in the United States and other countries after the September 11, 2001 (9/11) bombing of the World Trade Center, Pentagon, and other terrorist attacks. The organization said that “The violent actions are random, unprovoked, and intentional, and often are targeted at defenseless citizens” (APA, ¶ 2). Miller, Mitchell, and Stone (2002) reported that the attacks authenticated realism for America already well known in other parts of the world: terrorism exists. The psychological outcomes from these actions caused the disruption of daily routines and normal functioning in virtually all places. The public was often advised to limit media coverage to prevent undo stress and potential outcome of depression.

Reports of bombings and shootings in schools and in public places were widespread in America leaving leaders perplexed and stressed over these random acts of violence; searching for ways to overcome these threats. For example, the Associated Press (2001)

reported that three people were shot in the newly opened Appalachian School of Law in Grundy, Virginia in January of 2001. Those slain included a student, a college professor, and the dean of the school. This tragedy and others like them have left schools devastated and their leaders searching for coping solutions not only for their staff and students, but for themselves, as well.

Adding to this highly stressed arena, Brocaw (2002), for NBC News, reported the largest identity theft case in United States history on November 25, 2002, with initial losses at more than \$2.7 million. He reported the press release from Manhattan United States Attorney James Comey: "With a few keystrokes, these men essentially picked the pockets of tens of thousands of Americans and, in the process, took their identities, stole their money and swiped their security" (¶ 2). This growing concern of identity theft left feelings of insecurity to the American public as daily transactions were carried out. Lastly, the Homeland Security Act was signed into law on November 25, 2002 (Hawkins, 2002). The need for this law resulted from the historical chain of events of terrorism that have left the American people in fear of their safety and with a keener sense of awareness of the once felt indispensable state of security. Kaplan (2002), Dean of Sarah Lawrence College, said that it is "During this time in our history when we need to be better informed" (¶ 2). Boggs (2002) in a letter to community college chancellors and presidents across the country, stressed the need for community colleges to implement a plan for first responder training as a result of the 9/11 terrorist attacks and the implementation of the Home Land Security Act . He said that all levels of the government were mobilizing for training and that community colleges should be the center of that training. Demonstrating the community college's role in addressing all issues, Boggs charged that "Community colleges have the faculty, the facilities, and the

experience to train first responders in every community across America in the most effective and efficient manner” (Boggs, 2002, ¶ 3). These unmarked national issues have left a wave of unsurity and stress for leaders of community colleges and, moreover, for all citizens across the United States.

Attributes Identified in the Literature Review

The final section of this chapter contained a synthesis of the attributes that were identified in previous sections. The literature produced many sources that described stress and many that related stress to the dimensions of wellness. The literature clearly demonstrated that a foundation of the practice and balance of wellness was vital to attaining and maintaining the coping skills for stress. A proliferation of information suggested that the workplace is fast paced and stressful. Focusing on the community college, the literature demonstrated that community colleges leaders are not immune to stress and must practice wellness to maintain the stamina to lead their organizations. Chapter 3 presented a summary of the methodology for the study.

CHAPTER 3

METHODOLOGY

Overview

This chapter includes a description of the research design, the selection of the sample, development of the research instrument, and the pilot study. The hypotheses are presented and the procedures for the collection of data, statistical techniques for data analysis, and the measurement of variables are summarized.

Research Design

A quantitative form of inquiry was used to answer the research questions and test the hypotheses. A questionnaire was used to gather data in order to identify and examine the relationship between wellness practices and the stress levels of community college presidents. The quantitative approach, synonymous with the positivist research process as reported by Gall, Borg, and Gall (1996), was used in this study because it takes a detached stance toward participants and is relatively constant across time and settings. The design of the study was *ex post facto*/correlational. Gall et al. reported *ex post facto* data may be used to determine the statistical significance of observed differences and to “discover possible causes and effects of a behavioral pattern or personal characteristic” (p.380). A *correlational design* was used to describe the relationship between variables. For example, this study was to determine the relationship between stress levels and the wellness practices of community college presidents.

Population and Sample

The 1048 men and women holding chief executive positions (the most common title was ‘president’) from community colleges in the United States were the target population of this research. To identify these individuals, the American Association of Community Colleges (AACC) was contacted and the proposed study was discussed with one of their researchers. He emailed a complete listing of the higher education institutions that are recognized as community colleges in the United States. Furthermore, he provided the definitions and method for division of these colleges by localities; urban, suburban, and rural. (See Appendix A for this correspondence) These definitions can be found in Chapter 1. This grouping was used to conduct a proportional stratified sampling of the population. The sample for this study was composed of the chief executive officers or presidents from these randomly selected community colleges. The identification of the email addresses of the presidents from these institutions was determined by searching the college web sites. An electronic survey was conducted using these addresses. Gall et al. (1996) suggested using the “largest sample possible” (p. 228) for quantitative research.

Scheaffer, Mendendall, and Ott (1986) reported that stratified random sampling included the execution of simple random sampling within each stratum. The authors reported that the number sampled was determined by the proportional allocation formula. A sample chart generated from the formula to estimate proportion population with a band on the error of estimation at +/-5%, generated a sample size number of 293. With an estimated return rate of 50%, the sample size required to estimate population was doubled to 586. A proportional sample requires that the sample be allocated in proportion to the size of each stratum. Thus,

larger strata would require larger samples, and smaller strata would require smaller samples (Scheaffer et al.).

For example, 41% (427) of the community colleges were urban; therefore, 41% (240) of the sample (586) was drawn from that stratum. Thus, stratified random sample with proportional allocation was used to ensure accurate representation of the sample where it might otherwise be unlikely (Scheaffer et al., 1986). Furthermore, suburban community colleges made up 25% (258) of the total colleges; consequently 25% (147) of the 586 sampled were selected from suburban community college presidents. Approximately 34% (363) of the colleges were rural, thus 34% (199) of the sample (586) were selected from rural community colleges.

Instrumentation

A summary of facts from the literature review were compiled and used to form the basis for the variables found in the survey instrument. Those facts included prevailing stressful issues widespread with community college presidents, the common symptoms of stress, and the major wellness practices and relaxation techniques used in the United States society. The attitudinally scaled instrument (see Appendix B) was titled *Stress Levels and Wellness Practices Measurement for Community College Presidents*. Gall et al. (1996) described attitude, “an individual’s viewpoint or disposition toward a particular object,” (p. 273) as having a behavioral component, which is the way an individual is inclined to act in certain situations. For this study a *Likert scale* was employed to indicate the level and frequency of stress encountered from various issues and activities; the feelings, characteristics, and symptoms generated from stress; and the commonality and frequency of wellness and relaxation practices. Data needed to address research questions were further

enriched with the inclusion of a demographic query at the end of the instrument. The instrument was written in non-technical terms as suggested by Gall et al. Approximately 15 minutes was required for the completion of the instrument.

The instrument was divided into three sections. Section One contained variables related to stress levels; Section Two, wellness and relaxation activities and practices; and Section Three, general questions and demographic information. Section One of the instrument was divided into three parts. This section took form after identifying issues from previous studies that generated stress. In particular those issues that had the potential to create stress for community college presidents were noted. Through the literature review, I determined that the effects of stress varied due to its source and frequency. Stress from one time or occasionally occurring events, *acute stress*, had less harmful long-term harmful effects than did those day-to-day issues and activities, *chronic stress*, that often cause continuous elevations in stress levels. Additionally, the sources of stress generally came from either work or personal issues.

Part one of Section One contained 17 Likert-scaled variables that integrated *occasionally occurring workplace activities* that have the potential to generate stress for community college presidents. *Part two* incorporated 31 scaled variables from *frequently occurring workplace activities* common to these presidents. *Part three* contained 20 scaled variables related to *personal or national events* that had the potential to create stress in individual's lives. For each variable found in the first three parts of Section One participants are asked to indicate the level of stress experienced from a 5-point ordered response scale ranging from "no stress," with a value of one (1) to "extreme stress," with a value of five (5).

Some variables also included a *does not apply* or *no occurrence* option with a value of nine (9) assigned. These were not used in analysis of the data.

Additionally, through research of the literature, I determined that stress could create varying degrees of responses resulting in symptoms or feelings that could be either negative or positive. These findings formed the basis for the *forth part* of Section One; *feelings, characteristics, or symptoms*, which included 33 scaled variables designed to determine the symptoms, characteristics or feelings from stress. Participants were asked to indicate the *frequency* of stress experienced from options ranging from “never,” with a value of one (1), to “often,” with a value of five (5).

Section Two of the survey, *Activities and Practices*, contained 50 Likert-scaled variables that were produced upon examination of the literature, which indicated that wellness was made up of a balance of several lifestyle dimensions. These dimensions included physical, mental, social, spiritual, and emotional components. Common practices in each of these areas were used to complete the scaled variables. Twelve variables were included on physical wellness, nine variables were included on social wellness, nine variables were included on mental/emotional wellness, and eight variables were included on spiritual wellness. The variables ranged from a low value of 1 (*indicating never practiced*) to a high score of 5 (*indicating regularly practiced*).

Section Three of the instrument contained a self-reported question; “What is/are your favorite way to relax?” followed by four scaled inquiries. The first question regarded the amount of time spent on relaxation; scored from Never (1), to Always (5) - *daily or as appropriately applied*. The second question determined the president’s opinion on how well he or she was balancing wellness practices; scored from Poor (1) to Excellent (5). Two

questions followed on the president's opinion his or her current level of stress and his or her management of stress, as compared to one year ago; scored from Much Worse (1) to Greatly Improved (5). Nominal and numerical data were collected for demographic information on gender age, year's tenure as a president, and ethnic origin.

Validity of the content of the instrument was established through the literature review. Each item on the questionnaire was included after an exhaustive search and review of information found on the topic of the stress levels of leaders or community college presidents and of general wellness practices and stress symptom common in the United States society. Gall et al. (1996) reported that "content validity is determined systematically by content experts, who define in precise terms the...domain...that the test is assumed to represent. Two community college presidents reviewed the questionnaire for content validity. Selected because of their experience and knowledge of community colleges, each gave recommendations for the addition or deletion of variables as related to issues relevant to community college presidents.

Additionally, a pilot study of the questionnaire, performed to establish the accurate understanding of the survey, was conducted with two community college presidents and one vice president from the Virginia Community College System, and a group of doctoral students enrolled in a research class at East Tennessee State University. The diversity of the students from the research class helped broaden the understanding of the issues affected by different state systems of community colleges. Comments, criticisms, and recommendations for improvement were engendered from the pilot study.

Guidelines presented in Gall et al. (1996), employed to conform to the ethical, legal, and human relations issues in educational research, additionally provided insight for the

construction and administration of the questionnaire. These authors placed emphasis on avoiding conflicts of interest, such as monetary gain by the researcher and generalizing findings to other populations. Additionally, they discussed the importance of gaining cooperation and building a relationship with the subject through an introductory letter or other means, for the purpose of indemnifying confidentiality, to define the study's purpose, to relieve concerns of possible cost and inconvenience, and to assure that findings will not reflect unfavorable consequences (Gall et al.). Participants were directed to a link to the survey, which was located at the end of the cover letter. (See Appendix C)

Hypotheses

The following null hypotheses were used to guide the investigation regarding community college presidents. The alpha level was set at .05.

Ho1: There is no difference in overall stress means (a mean for the three stress categories collectively) and the three categories (stress categories independently) for community college presidents grouped by locale. (Research Question 3.)

Ho2: There is no a relationship between the levels of stress and independent variables gender and years' tenure as community college president? (Research Question 4.)

Ho3: There is no difference between minority and non-minority respondents on the stress levels of community college presidents. (Research Question 5.)

Ho4: There is no relationship between the levels of stress experienced by community college presidents and their weekly feelings, characteristics, and stress symptoms. (Research Question 6.)

Ho5: There is no difference by gender on the wellness practices of community college presidents. (Research Question 8.)

Ho6: There is no relationship between the stress levels experienced by community college presidents and the wellness practice subscales of this group. (Research Question 10.)

Ho7: There is no difference on overall wellness means (a mean for the four wellness dimensions collectively) and means for the four wellness dimensions independently for community college presidents grouped by locale. (Research Question 11.)

Ho8: There is no relationship in the perceived overall balance of wellness and the perceived management of stress. (Research Question 12.)

Procedure for Data Collection

A letter of introduction (cover letter) was sent electronically to each community college president. The letter stressed the anonymity and confidentiality of the data and that participation was voluntary. The letter contained a link to the research questions and to the electronic survey instrument. It also included a four digit personalized identifying number, which participants were requested to enter at the beginning of the survey instrument. The first digit of this number was a 1, 2, or 3; which represented suburban, urban, or rural locales, respectively.

Access databases were created for each of the locales. These databases contained the president's name, college name, email address, and their identifying number. These databases were linked with the introductory letter upon emailing, which permitted the instantaneous sending of a personalized letter to each president.

To facilitate anonymity, the completed questionnaires were returned to a confidential web site located on the Southwest Virginia Community College web page server created especially for the returned survey instruments. Additionally, numerical values were assigned to each possible response and only the number for the selected response was returned to an

Excel database located on the college's server. The webmaster agreed to note and compile a list of the identifying number from the returned surveys indicating the source of the returned instrument. She then stripped the last three numbers from the returned information before forwarding the database to my email address. This prevented me from matching data to a particular participant; only having access to the first number that identified the locale of the participant.

The identifying numbers were sent to me collectively by the web master prior to the resending of the instrument, enabling the establishment of a new database (void of returned participants) for each locale. The database for the second emailing, named "Round Two," was sent September 15th. The process was repeated for "Round Three," emailed October 5th; and the "Final Round," emailed October 11th. (See Appendix D) By creating new databases (by locale) for each round, the maintenance of a clear record of returns was assured. Additionally, as the returns were cut from the databases, they were pasted onto a separate database, which created a means of sending the findings to respondents upon completion of the study, as promised in the cover letter.

Moreover, the introductory email letter contained an option for those preferring not to complete the survey online. Upon this request, a printed copy of the survey was mailed to the participants. Information from the returned hard copy survey instruments were entered into the electronic instrument by a reliable third party person. Additionally, some participants emailed or called requesting that the instrument be faxed to them. Others printed the instrument from the web, completed by hand, and returned by postal mail. These returned responses were processed in the same manner as the emailed returns; their responses were entered onto an electronic instrument and submitted. The data from the Excel databases were

imported collectively into an electronic statistical software program for the determination of statistical findings.

Data Analysis

Measures to determine the degrees and relationships of the independent and dependent variables were statistically analyzed. The data on the stress levels and wellness practices of community college presidents were collected using a Likert type scale to yield interval data. The variables related to stress (Section 1 of the instrument) ranged from a value of 1 (*indicating no stress*) to a high stress value of 5 (*indicating extreme stress*). The value of 9 indicated that the question did not occur or did not apply to the participant. This value was not used for analysis. Oppositely, the wellness variables (Section 2 of the instrument) ranged from a low value of 1 (*indicating never practiced*) to a high score of 5 (*indicating regularly practiced*). The relaxation techniques in that section ranged from a low value of 1 (*indicating never practiced*) to a high score of 5 (indicating regularly practiced). Additionally, the instrument included a demographic section containing nominal and numerical measurement scales. The Statistical Procedure for Social Sciences (SPSS) software program was used to analyze the collected data.

Research Question 1 - “What is the demographic profile for gender, age, tenure as president, and ethnic origin of community college presidents?” Descriptive statistics (frequency distributions and percentages) was used to summarize the categorical data. The demographic data was displayed using Crosstabulation tables.

Research Question 2 - “What are the 10 most common stress related variables generating high or extreme stress among community college presidents?” was accomplished

by determining the mean, standard deviation, and range of the data collected from the first three parts of section one of the survey instrument.

Research Question 3 – “Do community college presidents grouped by suburban, urban, and rural differ on overall stress means (a mean for the three stress categories collectively); and does each of these means for the three categories (stress categories independently) differ for each of the three groups of presidents by locale?” A One-way Repeated Measures ANOVA was run to analyze this question. This analysis enabled the determination for two main effects – a main effect for (1) stress categories collectively and for (2) stress categories independently.

Research Question 4 – “Is there a relationship between the levels of stress and independent variables: gender and years’ tenure as community college president?” The point-biserial correlation (nominal and interval data) was employed to determine the effects of stress categories collectively and independently for gender and years’ tenure.

Research Question 5 – “Is there a difference between minority and non-minority respondents on the stress levels of community college presidents?” A mean of the mean stress scores for minority groups collectively (African American, Hispanic, Asian, and Native American) was compared to the mean score of the non-minority group (Caucasian). A t-test (Levene’s Test) was run to determine the difference in the stress levels of community college presidents by minority and non-minority respondents.

Research Question 6 – “Is there a relationship between the levels of stress experienced by community college presidents and their weekly feelings, characteristics, and stress symptoms?” was analyzed using a Pearson Product-Moment correlation because both variables were of interval level data.

Research Question 7 – “What are the 10 most common wellness practices among the presidents?” employed descriptive statistics to determine the mean, standard deviation, and range for each variable.

Research Question 8 – “Is there a difference by gender on the wellness practices of community college presidents?” The t-test (Levene’s Test) for equality of variance was measured using an unpaired t-test (tests if variables differ between groups). The unpaired t-test is used when the groups are not paired or equal in size.

Research Question 9 – “What are the 10 most commonly cited relaxation techniques of community college presidents and how much time do presidents have to relax?” was accomplished by determining the mean, standard deviation and range of the data collected from the first three parts of section one of the survey instrument.

Research Question 10 – “Is there a relationship between the stress levels experienced by community college presidents and the wellness practice subscales of this group?” The Pearson product-moment coefficient was used to analyze this research question because both variables are interval scales. The subscales were determined from Section 2-Part 1 (*Wellness Practices*) of the instrument; twelve variables were related to physical wellness including 1, 7, 8, 9, 10, 11, 16, 18, 19, 20, 21, and 36; nine variables were related to mental/emotional wellness including 2, 3, 15, 22, 23, 24, 25, 27, and 32; eight variables were related to spiritual wellness including 6, 12, 17, 26, 29, 30, 34, and 39; and nine variables were related to social wellness including 4, 5, 13, 14, 28, 31, 33, 37, and 38. Each of these variables was transformed through SPSS to create the four new composite dimensions of wellness.

Research Question 11 – “Do community college presidents grouped by suburban, urban, and rural differ on overall wellness means (a mean for the four wellness dimensions

collectively); and does each of these means for the four dimensions (wellness dimensions independently) differ for each of the three groups of presidents by locale?” A One-way Repeated Measures ANOVA was run to analyze this question. This analysis enabled the determination for two main effects – a main effect for (1) wellness practices collectively and for (2) wellness practices independently.

Research Question 12 – “Is there a relationship between the overall balance of wellness practices by community college presidents and their management of stress?” was analyzed using a Pearson Product-Moment correlation because both variables are of interval level data.

Summary

Chapter 3 explained the methodological approach to the quantitative study. It clarified the quantitative research design, described the population and sample, and detailed the attitudinally scaled instrument. Additionally, the chapter presented the hypotheses for the study and the procedure for data collections and analysis.

Chapter 4 presents an analysis of the findings of the study. Chapter 5 imparts a summary, recommendations, and conclusions for this investigation.

CHAPTER 4

FINDINGS

The purpose of the study was to investigate the variety and level of wellness practices of community college presidents and the relationship of these practices to the stress levels of this group. The extent and type of association between stress and wellness practices and respondent demographics such as age, race, gender, presidential tenure, and locale were investigated. An electronic survey instrument, *Stress Levels and Wellness Practices Measurement for Community College Presidents*, was disseminated after being designed through the merging of a comprehensive stress scale and a multidimensional wellness scale. The instrument was used to solicit community college presidents' perceptions of stress from variables in their professional and personal life. Additionally, the instrument investigated the participant's frequency of engagement in wellness and relaxation activities. Participants were asked to provide demographic information and additional comments at the end of each section of the instrument, through open-ended question items.

The target population for the study consisted of 1048 men and women holding chief executive positions in community colleges in the United States. Participants were full-time employees holding the job title of president. These presidents were identified by locale: urban, suburban, and rural. A stratified random sampling of these groups, including the execution of simple random sampling within each stratum (*locale*), was used to define the study.

The proportional allocation formula was used to generate a chart to estimate proportion population with a bound on the error of estimation at +/-5%. A sample number of

293 was generated and with an estimated return rate of 50% the sample size required to estimate population was doubled to 586. The response rate was 297 (51%). However, one response was not used because of its late arrival, giving a usable response rate of 296 (51%). Response rate by locale included: suburban, 67 (46%); urban, 126 (52%); and rural, 104 (52%). The response rate exceeded the estimate proportion population number of 293. (See Table 1.)

Table 1

Response Rate of Community College Presidents

	Population		Emailed Surveys		Returned Surveys		Return Rate
	n		n	%	n	%	%
Suburban	258		147	25.1	67	22.6	45.6
Urban	427		240	41.0	126	42.4	52.5
Rural	<u>363</u>		<u>199</u>	<u>33.9</u>	<u>104</u>	<u>35.0</u>	<u>52.2</u>
Total	1048		586	100.0	297	100.0	50.6
Missing = 1							

Research questions with subsequent null hypotheses where appropriate are presented to guide the investigation regarding community college presidents. The alpha level was .05.

Research Question 1

What is the demographic profile for age, gender, tenure as a community college president, and ethnic origin?

Descriptive information regarding the demographic profile of the respondents included age, gender, number of years tenure as a community college president, and ethnic origin.

Age

Community college presidents ranged in age from 40 to 74 years with a mean for all presidents of 56.72 (N=296). (See Table 2.) The youngest and the oldest participant were from urban institutions.

Table 2

Mean Ages of Community College Presidents by Locale

	Suburban Presidents	Urban Presidents	Rural Presidents	Total
N	66	125	104	296
Mean	57.89	56.29	56.46	56.72
SD	4.53	5.46	6.04	5.50
Range	47 - 74	40 - 74	42 - 69	40 - 74

Gender

Almost three fourths of respondents were male (n= 216, 73.0%). Rural male respondents were higher than the average. There were 83 (80.6%) rural male respondents, as opposed to 20 (19.2%) female respondents. Almost half of the female respondents (49.4%) were from the urban group. (See Table 3.)

Table 3

Gender of Respondents by Locale

Gender Category	Suburban Presidents		Urban Presidents		Rural Presidents		Total	
	n	%	n	%	n	%	n	%
Male	47	71.2	86	68.8	83	80.6	216	73.2
Female	<u>19</u>	<u>28.8</u>	<u>39</u>	<u>31.2</u>	<u>20</u>	<u>19.4</u>	<u>79</u>	<u>26.8</u>
Total	66	100.0	125	100.0	103	100.0	29	100.0

No Response = 1

Tenure as a Community College President

The mean tenure year as a community college president was 8.90 years. Respondents' tenure ranged from less than one year to 41 years. Suburban presidents had the longest mean tenure, (mean = 9.52) rural presidents had the shortest (mean = 8.40) Twenty presidents (6.7%) had been in the presidential position for less than one year and eight (2.6%) had 30 or more presidential tenure years. (See Table 4.)

Table 4

Tenure of Community College Presidents by Locale

	Suburban	Urban	Rural	Total
n	66	125	104	295
Mean	9.52	9.06	8.40	8.90
SD	4.52	7.49	8.39	7.57
Range	<1 - 30	<1 - 41	<1 - 37	<1 - 41

Ethnicity

Participants in the study were overwhelmingly Caucasian (n = 253, 85.5%). Native American presidents were found solely from rural community colleges (n = 3, 100%). African American presidents were predominately found in urban community colleges (78.5%), as were Hispanic presidents (63%). By contrast, none of the Asian presidents were in urban colleges. Of the 42 (14.2%) minority respondents, 57.1% were from urban community colleges. (See Table 5.)

Table 5

Ethnicity of Community College Presidents by Locale

Ethnicity	Suburban		Urban		Rural		Total	
	f	%	f	%	f	%	f	%
Caucasian	57	86.4	101	80.8	94	91.4	253	85.5
African American	1	1.5	11	8.8	2	1.9	14	4.8
Hispanic	5	7.6	12	9.6	2	1.9	19	6.4
Native American	0	0	0	0	3	2.9	3	1.1
Asian	2	3.0	0	0	2	1.9	4	1.4
Alaskan	0	0	0	0	0	0	0	0
Other	<u>1</u>	<u>1.5</u>	<u>1</u>	<u>.8</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>.8</u>
Total	66	100.0	125	100.0	103	100.0	295	100.0

No Response = 1

Research Question 2

What are the 10 greatest sources of stress among community college presidents?

Variables to determine stress levels of community college presidents made up Part 1, Part 2, and Part 3 of *Section One* of the survey. These included: occasionally occurring workplace events (P1), frequently occurring workplace issues and activities (P2), and personal or national issues or activities (P3). Variables were numbered according for each part. Data were gathered from a scaled response including: no stress (1), mild stress (2), moderate stress (3), high stress (4), and extreme stress (5). Descriptive statistics were employed to determine the mean, standard deviation, and range for each variable in the three groups collectively and to determine overall which stress related variable created the highest stress level. (See Table 6.)

Table 6

Mean Scores of the Greatest Sources of Stress of Community College Presidents

<i>Stress Variable</i>	<i>n</i>	<i>Mean</i>	<i>SD</i>	<i>Range</i>
College Funding Issues (P2, #3)	296	3.51	.915	1-5
Internal Budget Decisions/ Balancing the Budget (P2, #4)	296	3.19	.909	1-5
Personnel Conflicts/ Issues/Grievances (P2, #13)	296	2.97	.989	1-5
Multifaceted Work Demands (P2, #1)	296	2.93	.877	1-5
Laying Off College Staff (P1, # 6)	296	2.88	1.466	1-5
Personnel Negotiation(P1, # 2)	296	2.84	1.037	1-5
State Governance Issues (P2, #24)	295	2.79	1.007	1-5
Time Management (P2, # 27)	294	2.69	1.007	1-5
Balance Work/Family (P2, #2)	294	2.69	.956	1-5
Inadequate Resource/ Equipment (P2, # 28)	295	2.68	1.008	1-5

College funding issues (N = 295; mean = 3.51) and *internal budget decisions/balancing the budget* (N = 295; mean= 3.19) created the highest level of stress for community college presidents. Likewise, the largest group of self-reported stress variables was also related to funding issues. Variables from frequently occurring workplace issues and activities comprised 80% of the most stressful variables for respondents with the remaining 20% from occasionally occurring workplace activities. The highest ranked (17th) personal or national issue was the 9/11 variable. Similarly, the most frequent self-reported personal/national cause of extreme stress revolved around 9/11 issues and worry from national conflict concerns. A complete listing of the stress sources for respondents is found in

Appendix F. Additionally, a complete listing of self-reported sources of stress is reported in Appendix G.

Research Question 3

Do community college presidents grouped by suburban, urban, and rural differ on overall stress means (a mean for the three stress categories collectively); and does each of these means for the three categories (stress categories independently) differ for each of the three groups of presidents by locale?

HO: There is no difference in overall stress means (a mean for the three stress categories collectively) and the three categories (stress categories independently) for community college presidents grouped by locale.

A One-way Repeated Measures ANOVA was run to analyze this question. This analysis enabled the determination for two main effects – a main effect for

- (1) Stress categories collectively and
- (2) Stress categories independently

The stress categories included: occasionally occurring workplace events (Part One of Section One from the survey); frequently occurring workplace issues and activities (Part Two of Section One); and personal or national issues or activities (Part 3 of Section One). The scaled response for stress variables ranged from: no stress (1), mild stress (2), moderate stress (3), high stress (4), and extreme stress (5).

Main Effect for Stress Categories Collectively

This portion of the analysis was to determine if there was a significant difference between total means (a mean of means for all three stress categories) for community college

presidents. In other words, the means presented were a mean of the three categories for stress means. (See Table 7.)

Table 7

One-way Repeated Measures ANOVA: Mean Scores on the Three Stress Categories Collectively by Locale

	Suburban Presidents	Urban Presidents	Rural Presidents
n	66	125	104
Mean	2.41	2.44	2.36
SE	.05	.04	.04

Source	SS	df	ms	F Ratio	p
Stress Categories	.394	2	.197	1.04	.356

Stress category mean scores 2.41 (suburban), 2.44 (urban), and 2.36 (rural) with an F - Ratio of 1.04 ($p = .356$) did not differ significantly at the .05 level of probability. This can further be interpreted to infer there was no *mean effect* for the stress sources collectively.

The final conclusion was that respondents grouped by locale did not differ in collective stress categories even though they did differ in one of the three stress levels. (See Table 8.)

Main Effect for Stress Categories Independently

Further, the One-way Repeated Measures ANOVA enabled the determination of the differences in each of the stress categories means by local (suburban, urban, and rural). This involved three separate analyses of the stress categories for each of the locales of the presidents; suburban, urban and rural. Initially, each of the three means for stress categories

were compared with each other to determine if there was significant differences between the presidents stress levels. Table 8 summaries these findings.

Table 8

One-way Repeated Measures ANOVA: Stress Categories Mean Scores for Presidents

Stress Categories	Community College Presidents		
	Mean	SE	n
Occasional Workplace Occurrences	2.62	.03	296
Frequent Workplace Occurrences	2.39	.02	296
Personal and/or National Events	2.20	.03	296

The stress level means ranged from a low of 2.20 for personal and/or national events to a high of 2.62 for the occasional occurring workplace events. The determination of these means enabled the completion of the pairwise comparison. (See Table 9.)

Table 9

One-way Repeated Measures ANOVA: Pairwise Comparisons of the Stress Category Means for Community College Presidents

Pairwise Stress Categories	Community College Presidents	
	Mean	p
Occasional Events	2.62	<.0001
Frequent Activities	2.39	
Occasional Events	2.62	<.0001
Personal/National	2.20	
Frequent Activities	2.39	<.0001
Personal/National	2.20	

The three pairs of stress categories means differed significantly ($p = .05$) for the community college presidents. The following interpretations are drawn from Table 9.

(1) The mean score for occasionally occurring workplace events (mean = 2.62) was significantly higher than for the other two groups (frequent occurring workplace activities (mean = 2.39, $p = .0001$) and personal/national events or activities (mean = 2.20, $p = .0001$); therefore, overall, greater stress occurred from occasionally occurring events than from the other two sources.

(2) Additionally, the mean scores of the stress categories (frequent occurring workplace activities (mean = 2.39, $p = .0001$) and personal/national events or activities (mean = 2.20, $p = .0001$) were greater for the former group ($p = .0001$); therefore, greater stress occurred from frequently occurring day-to-day activities at work than from personal/national issues. Thus, occasionally occurring workplace events, with the highest mean score (mean = 2.62), created the most stress, followed by frequently occurring activities (mean = 2.39), and finally the group with the lowest mean was personal/national events with a mean of (mean = 2.20) The null hypothesis was rejected.

Research Question 4

Is there a relationship between the levels of stress and independent variables gender and years tenure as a community college president?

HO: There is no relationship between the levels of stress and independent variables gender and years' tenure as a community college president.

Gender: The point-biserial correlation was used to measure the relationship between the nominal independent variable, gender of community college presidents, and the continuous variable of stress levels experienced by these presidents.

There was a low positive association ($r_{pb} = .275, p < .0001$) between stress levels and gender. In this study stress levels were higher for female community college presidents than for male presidents. Additionally, urban female presidents had a higher mean score for stress (mean = 2.61) than the other two locales. Furthermore, an independent samples t-test showed female respondents were significantly more stressed than male respondents on each of the three stress categories, occasionally occurring stress ($t = 3.24, p < .001$), frequent workplace occurrences ($t = 4.51, p < .001$), and personal/national events ($t = 4.97, p < .001$). The null hypothesis was rejected.

Tenure: The Pearson product-moment correlation coefficient was calculated as a measure of the relationship between years' tenure and stress levels of community college presidents. A significantly low negative association ($r = .235, p < .0001$) was found between tenure and stress levels of respondents indicating that more seasoned presidents were less stressed than those with less experience as president. The null hypothesis was rejected.

Research Question 5

Is there a difference between minority and non-minority respondents on the stress levels of community college presidents?

HO: There was no difference between minority and non-minority respondents on the stress levels of community college presidents.

A mean of the mean stress scores for minority groups collectively (African American, Hispanic, Asian, and Native American) was compared to the mean score of the non-minority group (Caucasian). A t-test was run to determine the mean scores on the stress levels of community college presidents by minority and non-minority respondents. (See Table 10.)

Table 10

Mean Stress Scores of Minority and Non-Minority Community College Presidents

Category	Mean Stress Score	SD	t	p
Minority (n = 253)	2.36	.43	4.29	<.001
Non-Minority (n = 42)	2.67	.43		

The mean scores of the stress levels of respondents by minority and non-minority were significant ($t = 4.29$; $p = <.001$). In this study ethnicity is related to stress levels and minority respondents collectively had more stress than non-minority respondents. The null hypothesis was rejected.

Research Question 6

Is there a relationship between the levels of stress experienced by community college presidents and their weekly feelings, characteristics, and stress symptoms?

HO: There is no relationship between the levels of stress experienced by community college presidents and their weekly feelings, characteristics, and stress symptoms.

Feelings, characteristics, and symptoms of stress were reported on a five-point scale including never, rarely (once a year), occasionally (few times per year), often (monthly), and always (weekly) located in Part 4 of the survey instrument. An overall mean score for feelings, characteristics, or symptoms was obtained from an average of the means for each variable in this group. These independent variables and the dependent scores on stress sources (occasionally occurring events, frequently occurring activities, and stress symptoms) were considered to be interval level data; therefore, the relationships were expressed in Pearson product-moment coefficients. Relationships are summarized in Table 11.

The data indicated a low positive relationship between stress levels and the feelings, characteristics, and symptoms of stress ($r = .290$, $p = < .0001$), which was interpreted to infer that as stress levels increase; feelings, characteristics, and symptoms increase. The top four feelings, characteristics or symptoms included: a sense of satisfaction (mean = 4.65), a sense of achievement (mean = 4.63), a sense of fulfillment (mean = 4.59) and exhilaration (mean = 3.98). Cigarette smoking (a negative form of stress relief) was ranked at the bottom of the list (mean = 1.33).

Table 11

Pearson Product-Moment Correlation between Stress Levels and the Feelings, Characteristics, and Symptoms of Stress Experienced by Community College Presidents

Source	n	Mean	r	p
Stress Levels	296	2.41	.290	< .0001
Feelings, Characteristics, And Symptoms	296	2.64		

A listing of feelings, characteristics, and symptoms means; and self-reported symptoms of stress are listed in Appendixes H and I respectively. The symptom *insomnia* was the most frequently occurring self-reported indicator of stress ($n = 8$). The null hypothesis was rejected.

Research Question 7

What are the 10 most common wellness practices among the presidents?

Descriptive statistics was employed to determine the mean, standard deviation, and range for each wellness variable. This assessment of these variables was measured with a five-point scale including never, seldom (*4-5 days per year*), sometimes (*4-5 days per*

month), fairly regularly (*usually 1-2 days per week*), and regularly practiced (*3+ days per week or as appropriately applies*). (See Table 12.)

The data indicated, of the 10 most common wellness practice of respondents, wearing seat belts had the highest mean score; 4.82 (n = 296). Attending or participating in dancing was ranked at the bottom (mean = 1.08). No significant difference was found in wellness practices and gender (n = 295, p = .998).

Table 12

Mean Scores of the 10 Most Common Wellness Practices of Community College Presidents

Wellness Variable	n	Mean	SD	Range
Use of Seatbelt	296	4.82	.561	1 - 4
Positive Outlook	296	4.66	.566	1 - 4
Read News/Journals	296	4.64	.634	1 - 3
Set Priorities	296	4.61	.612	1 - 3
Actively Listen	296	4.59	.615	1 - 4
Maintain High Self-Esteem	296	4.57	.650	1 - 4
Find Beauty in Nature	296	4.52	.768	1 - 4
Find Humor/Laugh	296	4.52	.698	1 - 4
6+ Hours Sleep Nightly	296	4.47	.768	1 - 4
Experience Love/Joy	296	4.46	.702	1 - 3

A complete listing of mean scores for wellness practices of respondents is found in Appendix J and self-reported wellness practices follow in Appendix K.

Research Question 8

Is there a difference by gender on the wellness practices of community college presidents?

HO: There was no difference by gender on the wellness practices of community college presidents.

A t-test for equality of variance was run to determine the mean scores of wellness practices by gender. (See Table 13.)

Table 13

Wellness Mean Scores by Gender for Community College Presidents

Category	Mean Wellness Score	SD	t	p
Males (n = 216)	3.60	.38	.888	.375
Females (n = 79)	3.65	.38		

The mean scores on the differences in wellness practices of respondents by gender were not significant ($t = .888$; $p = .375$). Gender is not related to the practice of wellness and no single wellness dimension was more regularly practiced by males than females. The null hypothesis was retained.

Research Question 9

What are the 10 most commonly cited relaxation techniques of community college presidents and how much time do presidents have to relax?

Self-reported information on the 10 most frequently occurring favorite ways to relax for community college presidents was collected. Reported answers were alphabetized and hand counted. (See Table 14.)

The favorite way to relax as self-reported by respondents was reading ($f = 71$, 24.0%). Spending time with spouse, children, and grandchildren were second ($f = 34$, 11.5%). The most commonly practiced sport was golf ($f = 33$, 11.0%).

Table 14

The 10 Most Common Self-Reported Ways to Relax

Favorite Relaxation Practice	<i>f</i>	%
Reading	71	24.0
Family	34	11.5
Golf	33	11.1
Walking	22	7.4
Listen to Music	19	6.4
View Sporting Events	17	5.7
Travel	14	4.7
Fishing	10	3.8
Hiking	9	3.0
Cooking/Entertaining	8	2.7

Descriptive data were collected on the amount of time community college presidents have to relax. The five-point scale ranged from Never (1); Seldom (2), few times per year; Sometimes (3), few times per month, Regularly (4), at least once a week; and Always (5), daily. (See Table 15.)

Table 15

Amount of Time to Relax

Relaxation Categories	<i>f</i>	%
Seldom	22	7.4
Sometimes	76	26.6
Regular	160	53.9
Always	<u>33</u>	<u>12.1</u>
Total	291	100.0
Missing = 6		

In Table 15 the majority of respondents regularly took time to relax (n= 160, % = 53.9) indicating that they relaxed at least one time per week. Thirty-three respondents

(12 %) relaxed daily. A complete listing of favorite ways respondents relaxed is presented in Appendix L.

Research Question 10

Is there a relationship between the stress levels experienced by community college presidents and the wellness practice subscales of this group?

HO: There is no relationship between wellness practices and the stress levels experienced by community college presidents and the wellness practice subscales of this group.

Wellness practices variables and scores on the stress sources were considered to be interval level data, therefore the relationships were expressed in Pearson product-moment coefficients for wellness practice subscales and the dependent variable stress. (See Table 16.)

A significantly low negative correlation ($r = -.142$, $p = .015$) was found between physical wellness practices and stress levels of respondents. This finding indicated that the level of stress decreased with an increase in physical wellness practices. The null hypothesis was rejected.

Table 16

Pearson Product-Moment Correlation between Stress Levels and the Wellness Practices of Community College Presidents

Wellness Practices	N	SD	r	p
Physical	296	.50	-.142	.015
Mental/Emotional	296	.41	-.067	.250
Spiritual	296	.67	.059	.314
Social	296	.45	.076	.194

Research Question 11

Do community college presidents grouped by suburban, urban, and rural differ on overall wellness means (a mean for the four wellness dimensions collectively); and do each of these means for the four dimensions (wellness dimensions independently) differ for each of the three groups of presidents by locale?

HO: There is no difference in the mean for the four wellness dimensions collectively and the four wellness dimensions independently for each of the three groups of community college presidents grouped by locale.

A One-way Repeated Measures ANOVA was run to analyze this question. This analysis enabled the determination for two mean effects – a mean effect for

- (1) Wellness dimensions collectively and
- (2) Wellness dimensions independently

Main Effect for Wellness Dimensions Collectively

This portion of the analysis was to determine if there was a significant difference between total means (a mean of the means for all four wellness dimensions) for community college presidents by locale. In other words, the means presented were a mean of the four dimensions for wellness means. (See Table 17.)

The data indicated an F-Ratio of .34 with an alpha level of .713 which was interpreted to indicate that the mean scores for wellness (3.61, suburban; 3.57, urban; and 3.60, rural, do not differ significantly at the .05 level of probability. This can further be interpreted to imply there was no mean effect for the wellness dimensions collectively on community college presidents by locale.

Table 17

One-way Repeated Measures ANOVA: Mean Scores on Wellness Practices by Locale

	Suburban Presidents	Urban Presidents	Rural Presidents		
n	66	125	104		
Mean	3.61	3.57	3.60		
SE	.05	.04	.04		
Source	SE	df	ms	F Ratio	p
Wellness Categories	.104	2	.052	.34	.713

Respondents grouped by locale did not differ in collective wellness dimensions even though they did differ in one of the four wellness levels as illustrated in Table 18.

Main Effect for Wellness Dimensions Independently

Further, the One-way Repeated Measures ANOVA enabled the determination of the differences in each of the wellness dimensions means by local (suburban, urban, and rural). This involved four separate analyses for each of the locales; suburban, urban, and rural. Initially, each of the four means for wellness dimensions was compared with each other to determine if there was a significant difference between wellness levels. These means were compared with each other to determine if significant differences exist between each of the four wellness levels. (See Table 18.)

The wellness level means ranged from a low of 3.27 for spiritual wellness practices, to a high of 3.87 for mental/emotional wellness practices. The number of cases for each of the four wellness dimensions varied from 19 to 15 variables.

Table 18

One-way Repeated Measures ANOVA: Wellness Dimensions Mean Scores for Presidents

Wellness Dimensions	Community College Presidents		
	Mean	SE	n
Physical	3.41	.03	296
Mental/Emotional	3.87	.03	296
Spiritual	3.27	.04	296
Social	3.81	.03	296

The pairwise comparisons of wellness category means inferred that the six pairs of wellness dimensions means differed significantly ($p = .05$). (See Table 19.)

Table 19

One-way Repeated Measures ANOVA: Pairwise Comparisons of the Wellness Category Mean Scores for Community College Presidents

Pairwise Wellness Dimensions	Community College Presidents	
	Mean	p
Physical	3.41	
Mental/Emotional	3.87	< .0001
Physical	3.41	
Spiritual	3.27	.002
Physical	3.41	
Social	3.81	< .0001
Mental/Emotional	3.87	
Spiritual	3.27	< .0001
Mental/Emotional	3.87	
Social	3.81	.007
Spiritual	3.27	
Social	3.81	< .0001

The following interpretations were drawn from Table 19.

(1) The mean score for mental/emotional wellness practices (mean = 3.87) was significantly higher than the mean scores of each of the other three groups of wellness practices; physical (mean = 3.41, $p < .0001$), spiritual (mean = 3.27, $p < .0001$), social (mean = 3.81, $p = .007$). Therefore, overall mental/emotional wellness was practiced more regularly than the other three wellness dimensions.

(2) Mean scores on the wellness dimensions practices (physical and spiritual) were significantly higher for the physical group (mean = 3.41, $p < .0001$); therefore, the practice of physical wellness occurred more regularly than spiritual wellness practices.

(3) Mean scores on the wellness dimensions (physical and social) were significantly higher for the social group (mean = 3.81, $p < .0001$); therefore, the practice of social wellness occurred more regularly than physical wellness practices.

(4) Mean scores on the wellness dimensions (spiritual and social) were significantly higher for the social group (mean = 3.82, $p < .0001$); therefore, the practice of social wellness occurred more regularly than spiritual wellness practices. The null hypothesis was rejected.

Research Question 12

Is there a relationship between the perceived overall balance of wellness and the perceived management of stress?

HO: There is no relationship in the perceived overall balance of wellness and the perceived management of stress.

The mean score of the perceived practice of balance among the wellness dimensions (physical, mental/emotional, spiritual, and social) over the past three months was compared

to mean score on the perceived management of stress. Both were considered to be interval level data; therefore, the relationships were expressed in Pearson product-moment coefficients for independent variable balancing wellness practices and the dependent variable management of stress.

A significantly low positive correlation ($r = .142$, $p = .015$) was found between the balance of wellness practices and the management of stress among the 296 respondents. This finding indicated that the ability to manage stress improved with an increase in the combined practice of the wellness dimensions. The null hypothesis was rejected.

Summary

Descriptive and comparative analyses of data from the Stress and Wellness Practices of Community College Presidents Measurement, generated from 296 American community college presidents were presented in this chapter. Frequency distributions were used to demographically characterize the study's respondents. The demographic profile included age, gender, tenure as community college president, and ethnic origin. The majority of the respondents were male (73%) and 86% were Caucasian. Nearly 6 % reported their heritage as Hispanic, 5 % were African-American, with the remaining 3 % comprised of Native American, and Asian. The mean tenure as president was nine years. The most frequently occurring presidential tenure was seven years. Only eight presidents (2.6%) had held the presidential title for 30 years or more.

Frequency distributions and self-reports of research questions associated with the most common stressors, feelings, characteristics, symptoms, and wellness practices of community college presidents were summarized, with complete listings of each of these areas included in the appendices. Comparative analysis of each of these areas was presented

to address the research questions. Six of the seven findings were significant while no significant relationship was found between wellness and locale. Other noteworthy findings included: no relationship existed in the comparison of overall wellness practices and stress levels. The practice of the mental/emotional dimension of wellness was predominant. Male presidents were less stressed than female presidents; a low negative relationship existed between physical practices and stress - as physical practices increased, the level of stress declined; a significant low negative association existed between tenure and stress levels - as years of experience as a president increased, stress levels declined; and a significant low positive correlation existed between stress levels and symptoms of stress - as stress level increased, the frequency of feelings, characteristics, and symptoms increased.

CHAPTER 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter includes the summary, conclusions, and consequent recommendations resulting from this study. In comparison to the massive literature on employee stress such as Boyd and Wylie (1994), Francis (1995), Levin et al. (1995), Smith (1995); very little research has been conducted on the existence or levels of stress among administrators and, in particular, college presidents, based on their practices of wellness. The purpose of this study was to investigate the variety and level of wellness practices of community college presidents and the relationship of these practices to the stress levels of this group.

The sample for this study consisted of 296 community college presidents from the United States who maintained this position during the fall semester of 2003. The group was further defined through the drawing of a stratified random sampling of urban, rural, and suburban locations of these community college presidents. Participating presidents completed an electronic survey based on issues and activities relevant to their home and personal life.

This study measured presidents' stress levels and the participation in wellness practices using the *Stress Levels and Wellness Practices Measurement for Community College Presidents*. The questionnaire was designed to address the frequency, cause, and symptoms of stress of community college presidents. It also addressed the types of wellness practices engaged in by this group and the influence these practices have on stress levels. The Likert scaled instrument included demographic information on gender, age, tenure as president, and ethnic origin. Additionally, self-reported information pertaining to stress and wellness practices were included. The instrument was developed after an examination of

similar studies that identified variables considered important in wellness practices and stress concerns. Additionally, studies and information defining the issues and concerns of today's community college were considered.

Summary

Generally, through analysis of the stress levels, a low positive correlation between stress levels and symptoms of stress was found indicating that as stress levels increased feelings, characteristics, and symptoms increased. No relationship existed in the comparison of wellness practices and stress levels except for physical practices, where a low negative correlation was found indicating that physical practices have an effect on bringing down stress levels. Male respondents were less stressed than female respondents ($r_{pb} = .275$, $p < .0001$). Occasionally occurring workplace events were significantly higher sources of stress than the other two groups of stress sources; frequent occurring workplace activities and personal/national events.

Specifically, the following findings were presented as a result of the data analysis and resultant explanations of data are summarized. Seven of the eight null hypotheses were rejected. The hypothesis related to the relationship between wellness and locale was retained. Discussed in the order they were presented in Chapter 4, the findings begin with a discussion of the demographic variables of the respondents.

Research Question 1 - "What is the demographic profile for gender, age, tenure as president, and ethnic origin of community college presidents?" The demographic profile included age, gender, age, number of years as a community college president, and ethnic origin. The data indicated the age of community college presidents ranged from 40 to 74 years of age with a mean for all presidents of 56.72 ($N=296$). Comparatively, Weisman and

Vaughan (2001) similarly found the mean age of community college presidents was 56 years with a range of 36 to 78 years of age. The majority of the respondents were male (73%) and 86% were Caucasian. Nearly 6 % reported their heritage as Hispanic, 5 % were African-American; the remaining 3 % were Native American and Asian. The mean tenure year as president was nine years. The most frequently occurring presidential tenure was seven years. Only eight presidents (2.6%) had held the presidential title for 30 years or more. Similarly, Weisman and Vaughan (2002) found a mean tenure as community college president of 10 years and ethnicity included 86% Caucasian, 6.4% African American, 5.5% Hispanic, 1% Asian American/Pacific Islander, and .8% American Indian/Native American presidents

Research Question 2 - “What are the 10 most common stress related variables generating high or extreme stress among community college presidents?” Funding issues (mean =3.51) were ranked at the top of the list of variables generating high to extreme stress for community college presidents. Internal budgets and personnel conflicts followed correspondingly in causing the most stress for the respondents. The least stressful issue or activity was home construction or renovation (mean = 1.14)

Research Question 3 - “Do community college presidents grouped by suburban, urban, and rural differ on overall stress means (a mean for the three stress categories collectively); and does each of these means for the three categories (stress categories independently) differ for each of the three groups of presidents by locale?” Stress category mean scores did not differ significantly at the .05 level of probability for respondents grouped by locale categories collectively even though they did differ when compared independently. Occasionally occurring workplace events were significantly greater sources of stress than the other two groups; frequent occurring workplace activities and

personal/national events. Stress category means collectively had no effect by locale; however stress categories independently had different effects on respondents by locale.

Research Question 4 – “Is there a relationship between the levels of stress and independent variables gender and years tenure as a community college presidential?”

Through a point-biserial correlation for gender I found that stress levels were higher for female respondents than for male respondents. The Pearson product-moment correlation coefficient for number of years’ tenure as a community college president showed a significantly low negative association between tenure and stress levels indicating that more seasoned respondents were less stressed than those with less experience as president. Female respondents suffered more stress than male respondents and those with more tenure as a president suffered less stress than those with less presidential experience.

Research Question 5 – “Is there a difference between minority and non-minority respondents on the stress levels of community college presidents?” The mean scores of the stress levels of respondents by minority and non-minority respondents were significant ($t = -4.29$; $p = <.000$). This is interpreted to mean that ethnicity had an effect on the stress levels of respondents and those minority respondents collectively had more stress than non-minority respondents in this study.

Research Question 6 – “Is there a relationship between the levels of stress experienced by community college presidents and their weekly feelings, characteristics, and stress symptoms?” The Pearson product-moment coefficients procedure indicated a low positive relationship between stress levels and the feelings, characteristics, and symptoms of stress, which was interpreted to mean that as stress levels increased; feelings, characteristics,

and symptoms increased. Respondent's feelings, characteristics, and symptoms increased as their stress levels were amplified.

Research Question 7 – “What are the 10 most common wellness practices among the presidents?” Through descriptive statistics I found that the *physical practice* of seatbelt use was the most common practice followed respectively by *mental/emotional practices*; having a positive outlook, and reading the newspaper and professional journals.

Research Question 8 – “Is there an effect by gender on the wellness practices of community college presidents?” Through a t-test for equality of variance I found that gender did not have an effect on the practice of wellness or that one wellness dimension was not more regularly practiced by one group by gender than the other group. Gender did not have an effect on the wellness practices of respondents.

Research Question 9 – “What are the 10 most commonly cited relaxation techniques of community college presidents and how much time do presidents have to relax?” The favorite way to relax, as self-reported by community college presidents, was reading. The majority of respondents (53 %) regularly took time to relax; indicating that they relaxed at least one time per week. Thirty-three respondents (12%) relaxed daily.

Research Question 10 – “Is there a relationship the stress levels experienced by community college presidents and the wellness practice subscales of this group?” A Pearson product-moment coefficient showed a significantly low negative correlation between physical wellness practices and stress levels indicating that the level of stress decreases with an increase in physical wellness practices. There was a relationship between physical wellness practices and stress levels of respondents indicating that the level of stress decreased with an increase in physical wellness practices.

Research Question 11 – “Do community college presidents grouped by suburban, urban, and rural differ on overall wellness means (a mean for the four wellness dimensions collectively); and does each of these means for the four dimensions (wellness dimensions independently) differ for each of the three groups of presidents by locale?” The One-way, Repeated Measures ANOVA pairwise comparison for community college presidents grouped by locale, did not differ in collective wellness dimensions even though they did differ independently. The mean score for mental/emotional wellness practices was significantly higher than the mean scores of each of the other three groups of wellness practices; physical, spiritual, and social. Wellness dimensions means collectively had no effect on respondents by locale, however independently; wellness dimensions had different effects on respondents by locale.

Research Question 12 – “Is there a relationship in the perceived overall balance of wellness and the perceived management of stress?” The Pearson product-moment coefficients showed a significantly low positive correlation between the perceived balance of wellness practices and the management of stress. Respondents were better able to manage stress when practicing a balanced lifestyle. The null hypothesis was rejected. Those that balanced wellness practices were better able to manage stress.

Conclusions

The purpose of this investigation was to understand the relationship between the stress levels of community college presidents and their practice of selected dimensions of wellness. The many issues related to the presidential role were examined, as were the common wellness dimensions practiced in contemporary America.

Several of the findings were supported by the literature. Smith (1996) reported that the president must know how to organize, must set aside time for renewal, and most importantly, must keep a sense of humor blended with humility. Presidents in this study regularly took time to relax (n= 160, % = 53.9) indicating he or she found time for renewal at least one time per week.

Selye's (1979) made the distinction between harmful stress, or distress, and beneficial stress, or eustress. He found that harmful stress (distress or simply stress) causes feelings of helplessness, frustration and disappointment, while beneficial stress (eustress) generated feelings of achievement, satisfaction, and fulfillment. The respondents in this study indicated that feelings of satisfaction, achievement, fulfillment and exhilaration were prevalent in their lives, further confirming the work of Selye.

Seaward (2001) reported that the integration of wellness dimensions gave meaning for the individual who is striving for a healthy lifestyle, and these findings reinforced this claim. As the overall perceived balance of wellness increased, the management of stress improved. Results of the data analysis in this study indicated that regular wellness practices, especially physical practices and relaxation measures, were key factors in helping community college presidents cope with stress. A significant correlation was found between physical wellness practices and stress levels of community college presidents. Supported by claims such as the benefits of reduced anxiety (Cameron & Hudson, 1986); and reduced depression (Folkins & Sime, 1981) this study advanced the concept of the positive psychological benefits of regular physical exercise.

Many commonalities and themes emerged among the presidents' self-reported answers to questions about stress, symptoms of stress, wellness practices and favorite ways

to relax. The majority of the presidents, in reporting about workplace stress, viewed budget sources and issues stressful. The assertion by Giannini (2001) that unpredictable budgets causes stress for community college leaders further confirmed this finding. Many reported personnel issues as creating high stress. Many of the presidents noted state governance and local board issues as stressful. Information revolving around technology acceleration issues reported by Boggs (2001) was reinforced in my study because data indicated that technology issues were stressful.

(Bleich, Gelkopf, & Solomon, 2003; "Dealing with," 2002) examined the stress related symptoms and coping behaviors of those exposed to terrorism and the affects of 9/11 traumas on job performance. Likewise, several self-reported causes of stress in this study indicated that threats of terrorist attacks were causing a fear of air travel and travel abroad. A worry about the national conflict was frequently reported in this study as generating high levels of stress. Some of the respondents indicated a concern for children in the armed forces and one reported that he was in the army reserve program, causing uncertainty about his future.

By and large, this study supported many established theories and findings related to wellness and stress. Not only did it provide insight into these topics; furthermore, information about American community college presidents was learned. For example, through examination of respondents by locale, although not significant, urban respondents had a higher mean score for stress (mean = 2.44) than suburban (mean = 2.41) or rural (mean = 2.36) presidents. Likewise, minority and female respondents suffered more stress than their non-minority, male counterparts. Coincidentally, minorities and females respondents were predominately from urban community colleges; 57% of all minority groups and 49% of all

females. Additionally, female respondents had significantly less tenure (mean = 7.29, $p = <.0001$) than their male counterparts (mean = 9.49). Similarly, 93% of all minority groups had less than 11 years tenure, and 53% had five years or less. Ultimately, the blending of these findings pinpointed the majority of stress concerns within these few groups. The connection between stress and Urbanicity; and the growing transformation in ethnicity, gender, and tenure of community college presidents, further validated the revolution in the American community college. This revolution, coinciding with trends toward diversity throughout the majority of workplaces, creates uncertainties ultimately leading to increased stress for all.

In conclusion, although there were many commonalities among the presidents, each had a unique prospective and feeling on the effects of stress and the type and frequency of wellness and relaxation practices employed. I feel optimistic about the hardiness and resiliency of these individuals as they manage institutions exceedingly diverse in population and widespread in mission.

Recommendations

The following recommendations are suggested for further research on the relationship between wellness practices and stress. Foremost, an enormous amount of literature exists on stress and wellness topics. The selection of literature, although rather exhaustive, upon which this examination is based, was limited to my belief in the information that was most pertinent or relational. Research did not point to one particular area as being more relevant on the topic, rather many areas had merit and overlapped in stress and wellness related topics. For example, the dimensions of wellness varied from one source to another. Intellectual, environmental, and occupational wellness were defined as dimensions by some authors,

while others separated mental and emotional wellness into two different dimensions or classified these together under a new heading. Therefore, it is recommended that other dimensions of wellness be considered for study, incorporating different viewpoints on the blending of the elements of wellness.

Building on this recommendation, a wide range of topics that were relevant to the stress levels and wellness practices of community college presidents were incorporated into this research. The vast amount of information available on each topic related to stress issues and wellness practices has the potential of being studied individually and in depth. This research gave an overall glimpse of the issues surrounding and engulfing the president of these institutions. The examination of each dimension of wellness should be studied in its entirety to serve as a microscopic and diagnostic tool for its contribution to the management of stress for this swift-paced, multifaceted, and rapidly changing profession.

The hierarchy of any higher education presidential position creates a sense of control and power for those holding such positions; generating many positive feelings for these leaders. Findings from this study confirmed this fact, demonstrating that feelings of satisfaction and exhilaration prevailed for community college presidents. G. B. Vaughan (personal communication, November 20, 2003) suggested that “Although working under stress can be productive in the short run; prolonged stress dampens the spirit and weakens the body.” To him, “community college presidents should pay as much attention to their own well being as they do to the college’s budget and curriculum” (G. B. Vaughan, personal communication, November 20, 2003). It is recommended, therefore that presidents develop and implement a plan for wellness in their lives. Scheduling of these activities should be written into their daily schedule in advance, and adhered to as are other priorities of the day.

Individuals in presidential positions are confronted by a magnitude of stressful issues. The fact is not going to change. However, how these issues are internalized and managed is within control. To aid in this management, personal development opportunities should exist that includes wellness related activities focused toward the management of stress. Retreats and workshops designed to rejuvenate, motivate, and inspire toward a more wellness oriented lifestyle should be available for community college presidents as well as other members of their institutions.

Further, it is recommended that those aspiring to the community college presidency be cognizant of the far-reaching demands of the position and understand the importance of the practice of wellness. It is recommended that motivational courses be added to high education curriculums, addressing the magnitude, multiplicity, and responsibility of the position, incorporating techniques for overcoming and managing such concerns.

Additionally, the answers to the instrument were based on the feelings of the presidents at the time the instrument was viewed. For example, if the president had just experienced a very rewarding and uplifting experience, the way he or she answered the survey might be different than the intensity of emotions created if dealing with an unpleasant issue or having a very overwhelming past couple of hours. It is recommended that the questionnaire be completed multiple times to help accurately diagnose the types and degrees of stress of the presidents and to better understand the type of stress response he or she experiences.

In addition, this research, limited to community college presidents, could be expanded to include the vice presidents, directors, administrators, faculty, and other members of the staff from these institutions. The issues disconcerting to top positions directly or indirectly

eventually impinge on all employees. Gaining other perspectives on the effects of these issues on stress levels and the wellness practices employed by these staff members would be useful in creating an overall healthy workplace.

Moreover, community college presidents are not the only sufferers of stress. This study did not include other higher education entities or corporations, certainly suffering similar disparities from stress. The survey instrument developed for this research contained many variables common to all CEO's regardless of their organization. These individuals are face with unique professional and personal activities, events, and proceedings that result in typical stress related feelings. Consequently, the questionnaire used in this study could be modified or generalized for research with other higher education institutions or the private sector, thus benefiting a much broader group seeking a more peaceful life.

Different research methodologies should be employed to investigate wellness practices and stress levels. Control group experimental designs should be considered to further explore the effects of wellness practices on stress levels. Observational research rather than survey research would provide opportunities to study wellness practice effectiveness in a natural setting. Qualitative research techniques would provide researchers the opportunity to gain rich insights on the relationship of wellness practices and stress levels.

To advance the importance of this study, not only will community college presidents benefit from the employment of wellness practices for the management of stress, these practices can be applied to all individuals seeking to find ways to become more productive and less stressed. Through the personalization and incorporation of a wellness plan, he or she could undermine the effects of stress created from today's multifaceted, fast-paced lifestyle.

While each of the dimensions of wellness has specificity of its own, it is the integration of these dimensions that gives meaning to a healthy lifestyle. These practices will allow individuals to seize control of a means to live life to its fullest potential and affirm that he or she has the capacity for and the outlook of a less stressed world.

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APPENDICES

Appendix A

Correspondence for Urbanicity of Colleges

From: CHRISTOPHER SHULTS [CSHULTS@aacc.nche.edu]
Sent: Monday, September 23, 2002 1:00 PM
To: sherri.dawson@sw.vccs.edu
Subject: The list of colleges

Sherri,

Attached you will find the list of community colleges along with their urbanicity (locale) ratings. This contains all colleges which have locale information. The information on locale can be found at this link <http://nces.ed.gov/IpedS/S9798/pdf/s97recl.pdf> under list 4. Typically, we lump locales 6 and 7 together as rural, 3 and 4 as suburban, and 1,2 and 5 as urban (local 5 is not clear cut as depending upon the area, they could be urban or suburban). These "lumpings" are just for guidance, please group as you see fit. As an additional note, the locale ratings are for the administrative location of the institution, not the service area.

-Chris

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Appendix B
Survey Instrument

Stress Levels and Wellness Practices Measurement For Community College Presidents

The *Stress Levels and Wellness Practices Measurement for Community College Presidents* examines the source and level of stress for community college leaders and identifies the wellness and relaxation practices that support the management of stress. The instrument is divided into three sections. Section one, containing four parts, pertains to the degree of stress attributed to occasionally occurring events related to the workplace or from day-to-day activities related to the workplace; to personal events and activities in one's life; and to the symptoms, feelings, or characteristics experienced from stress. Section Two contains variables related to wellness activities commonly practiced. Section Three contains general questions and demographic information. The total time for completing all sections is approximately 15 minutes. Thank you for completing the survey.

Please enter your identifying number You can find this in your participant email message. Note that this number only identifies respondents, and is not linked to or included in the survey analysis.

Section One

Part 1 - Occasionally Occurring Workplace Activities

Occasionally occurring workplace activities are generally experienced one time per month or less (or not at all). Indicate the level of stress experienced from each of the following *activities* within the past year by selecting the appropriate response. The selections range from extreme stress to no stress.

1. Loss of Key Administrator

Extreme Stress	High Stress	Moderate Stress	Mild Stress	No Stress	<i>No Incident</i>
<input type="radio"/>					

2. Personnel Negotiations

Extreme Stress	High Stress	Moderate Stress	Mild Stress	No Stress
<input type="radio"/>				

3. Upcoming Accreditation

Extreme Stress	High Stress	Moderate Stress	Mild Stress	No Stress	<i>No Pending Review</i>
<input type="radio"/>					

4. Increased Nationwide School/Campus Violence

Extreme Stress	High Stress	Moderate Stress	Mild Stress	No Stress
<input type="radio"/>				

5. Loss of Key Board Member

Extreme Stress	High Stress	Moderate Stress	Mild Stress	No Stress	<i>No Incident</i>
<input type="radio"/>					

6. Laying Off College Staff

Extreme Stress High Stress Moderate Stress Mild Stress No Stress *No Layoffs*
○ ○ ○ ○ ○ ○

7. Major Workplace Technological Changes

Extreme Stress High Stress Moderate Stress Mild Stress No Stress
○ ○ ○ ○ ○

8. Presidential Evaluations

Extreme Stress High Stress Moderate Stress Mild Stress No Stress
○ ○ ○ ○ ○

9. Personnel Contracts

Extreme Stress High Stress Moderate Stress Mild Stress No Stress
○ ○ ○ ○ ○

10. Career Change

Extreme Stress High Stress Moderate Stress Mild Stress No Stress *No Career Change*
○ ○ ○ ○ ○ ○

11. Retirement in College's Workforce

Extreme Stress High Stress Moderate Stress Mild Stress No Stress *No Retirements*
○ ○ ○ ○ ○ ○

12. Death of Work Associate

Extreme Stress High Stress Moderate Stress Mild Stress No Stress *No Associate Deaths*
○ ○ ○ ○ ○ ○

13. Please List Other Occasionally Occurring Workplace Activities Causing High Stress

Part Two - Frequently Occurring Workplace Activities

Frequently occurring workplace activities are generally experienced one or more times per week. Indicate the level of stress experienced from each of the following *activities* within the past year by selecting the appropriate response. The selections range from extreme stress to no stress.

1. Multifaceted Work Demands

Extreme Stress High Stress Moderate Stress Mild Stress No Stress
○ ○ ○ ○ ○

2. Balancing Work/Family

Extreme Stress High Stress Moderate Stress Mild Stress No Stress
○ ○ ○ ○ ○

3. College Funding Issues

Extreme Stress High Stress Moderate Stress Mild Stress No Stress
○ ○ ○ ○ ○

4. Internal Budget Decisions/Balancing the Budget

Extreme Stress High Stress Moderate Stress Mild Stress No Stress

- ○ ○ ○ ○
5. **Interaction with Local College Board Members**
 Extreme Stress High Stress Moderate Stress Mild Stress No Stress
 ○ ○ ○ ○ ○
6. **Accelerating Technology**
 Extreme Stress High Stress Moderate Stress Mild Stress No Stress
 ○ ○ ○ ○ ○
7. **Policy/Procedural Issues**
 Extreme Stress High Stress Moderate Stress Mild Stress No Stress
 ○ ○ ○ ○ ○
8. **Community Relations**
 Extreme Stress High Stress Moderate Stress Mild Stress No Stress
 ○ ○ ○ ○ ○
9. **Out-of-Town Meetings**
 Extreme Stress High Stress Moderate Stress Mild Stress No Stress
 ○ ○ ○ ○ ○
10. **Conflicts among Local Board Members**
 Extreme Stress High Stress Moderate Stress Mild Stress No Stress
 ○ ○ ○ ○ ○
11. **Retention Issues**
 Extreme Stress High Stress Moderate Stress Mild Stress No Stress
 ○ ○ ○ ○ ○
12. **Risk Management Issues**
 Extreme Stress High Stress Moderate Stress Mild Stress No Stress
 ○ ○ ○ ○ ○
13. **Personnel Conflicts/Issues/Grievances**
 Extreme Stress High Stress Moderate Stress Mild Stress No Stress
 ○ ○ ○ ○ ○
14. **Traffic Delays/Driving**
 Extreme Stress High Stress Moderate Stress Mild Stress No Stress
 ○ ○ ○ ○ ○
15. **Enrollment Requirements/Issues**
 Extreme Stress High Stress Moderate Stress Mild Stress No Stress
 ○ ○ ○ ○ ○
16. **Discrepancies with Outside Organizations**
 Extreme Stress High Stress Moderate Stress Mild Stress No Stress
 ○ ○ ○ ○ ○
17. **Inadequate Campus Facilities**
 Extreme Stress High Stress Moderate Stress Mild Stress No Stress
 ○ ○ ○ ○ ○

18. **Staff Maintaining Focus on College Vision**
 Extreme Stress High Stress Moderate Stress Mild Stress No Stress
19. **Accountability Issues**
 Extreme Stress High Stress Moderate Stress Mild Stress No Stress
20. **Diversity Issues**
 Extreme Stress High Stress Moderate Stress Mild Stress No Stress No Diversity Issue
21. **Workplace Ethical Challenges**
 Extreme Stress High Stress Moderate Stress Mild Stress No Stress No Ethical Challenge
22. **Meeting Deadlines**
 Extreme Stress High Stress Moderate Stress Mild Stress No Stress
23. **Inadequate Physical Maintenance Staff**
 Extreme Stress High Stress Moderate Stress Mild Stress No Stress No Maintenance Inadequacies
24. **State Governance Issues**
 Extreme Stress High Stress Moderate Stress Mild Stress No Stress No Occurrence
25. **Interaction with Other Colleges**
 Extreme Stress High Stress Moderate Stress Mild Stress No Stress No Occurrence
26. **Inadequate Resources/Equipment**
 Extreme Stress High Stress Moderate Stress Mild Stress No Stress No Occurrence
27. **Time Management**
 Extreme Stress High Stress Moderate Stress Mild Stress No Stress No Occurrence
28. **Interaction with Local Officials/Community Leaders**
 Extreme Stress High Stress Moderate Stress Mild Stress No Stress No Occurrence
29. **Union Issues**
 Extreme Stress High Stress Moderate Stress Mild Stress No Stress No Occurrence
30. **Tenure Issues**
 Extreme Stress High Stress Moderate Stress Mild Stress No Stress
31. **Please List Other Workplace Activities Causing Moderate to High Stress**

--

Part Three - Personal or National Activities and Events

Personal activities or events are experienced outside the workplace. They include home, family, or national occurrences that affect our lives. Indicate how often you have experienced stress from the following activities or events within the past year by selecting the appropriate response. The selections range from extreme stress to no stress.

1. Personal Injury or Illness

Extreme Stress	High Stress	Moderate Stress	Mild Stress	No Stress	<i>No Injury/Illness</i>
<input type="radio"/>					
2. Relationship with Spouse/Significant Other

Extreme Stress	High Stress	Moderate Stress	Mild Stress	No Stress	<i>No Relationship</i>
<input type="radio"/>					
3. Death of Family Member

Extreme Stress	High Stress	Moderate Stress	Mild Stress	No Stress	<i>No Deaths</i>
<input type="radio"/>					
4. Death of Friend

Extreme Stress	High Stress	Moderate Stress	Mild Stress	No Stress	<i>No Deaths</i>
<input type="radio"/>					
5. Failing Health of Family Member

Extreme Stress	High Stress	Moderate Stress	Mild Stress	No Stress	<i>No Health Problems</i>
<input type="radio"/>					
6. Children Issues/Responsibilities

Extreme Stress	High Stress	Moderate Stress	Mild Stress	No Stress	<i>No Child Issues/Responsibilities</i>
<input type="radio"/>					
7. Holidays

Extreme Stress	High Stress	Moderate Stress	Mild Stress	No Stress
<input type="radio"/>				
8. Vacation

Extreme Stress	High Stress	Moderate Stress	Mild Stress	No Stress	<i>No Vacation</i>
<input type="radio"/>					
9. Mortgage or Other loans

Extreme Stress	High Stress	Moderate Stress	Mild Stress	No Stress	<i>No Mortgage</i>
<input type="radio"/>					
10. Home Construction or Renovation

Extreme Stress	High Stress	Moderate Stress	Mild Stress	No Stress	<i>No Construction/Renovation</i>
<input type="radio"/>					
11. Home Maintenance

Extreme Stress	High Stress	Moderate Stress	Mild Stress	No Stress
<input type="radio"/>				
12. Financial Management

Extreme Stress	High Stress	Moderate Stress	Mild Stress	No Stress
<input type="radio"/>				

13. Personal Retirement Affairs

Extreme Stress High Stress Moderate Stress Mild Stress No Stress

14. Stock Market Investments

Extreme Stress High Stress Moderate Stress Mild Stress No Stress

15. Identity Theft/Security Concerns

Extreme Stress High Stress Moderate Stress Mild Stress No Stress

16. September 11 National Tragedy

Extreme Stress High Stress Moderate Stress Mild Stress No Stress

17. Increased National Terrorist Threats

Extreme Stress High Stress Moderate Stress Mild Stress No Stress

18. Current International Conflicts

Extreme Stress High Stress Moderate Stress Mild Stress No Stress

19. Please List Other Personal or National Activities Causing Moderate to High Stress

--

Section Four – Feelings, Characteristics, and Symptoms

Indicate how often you have experienced the following symptoms, characteristics, or feelings within the past year by selecting the appropriate response. Selections are Always (Weekly); Often (Monthly), Occasionally (Few Times Year); Rarely (Once in Year); to Never.

1. Rapid, Pounding Heartbeat

Always Often Occasionally Rarely Never

2. Neck or Back Pain

Always Often Occasionally Rarely Never

3. Sweaty Palms

Always Often Occasionally Rarely Never

4. Sense of Fulfillment

Always Often Occasionally Rarely Never

5. Irritability

Always Often Occasionally Rarely Never

6. Exhilarated
 Always Often Occasionally Rarely Never
7. Feelings of Hopelessness
 Always Often Occasionally Rarely Never
8. Impatience
 Always Often Occasionally Rarely Never
9. Alienation
 Always Often Occasionally Rarely Never
10. Sense of Achievement
 Always Often Occasionally Rarely Never
11. Upset Stomach
 Always Often Occasionally Rarely Never
12. Consuming Alcohol to Relieve Stress
 Always Often Occasionally Rarely Never
13. Smoking Cigarettes to Relieve Stress
 Always Often Occasionally Rarely Never
14. Powerlessness
 Always Often Occasionally Rarely Never
15. Under Eating
 Always Often Occasionally Rarely Never
16. Tendency to be Controlling
 Always Often Occasionally Rarely Never
17. Mouth Dryness
 Always Often Occasionally Rarely Never
18. Aggressiveness
 Always Often Occasionally Rarely Never
19. Nervous Mannerisms
 Always Often Occasionally Rarely Never
20. Headaches
 Always Often Occasionally Rarely Never

21. Easily Fatigued
 Always Often Occasionally Rarely Never
22. Depressed
 Always Often Occasionally Rarely Never
23. Forgetfulness
 Always Often Occasionally Rarely Never
24. Heartburn
 Always Often Occasionally Rarely Never
25. Sense of Satisfaction
 Always Often Occasionally Rarely Never
26. Negative Feelings
 Always Often Occasionally Rarely Never
27. Overeating
 Always Often Occasionally Rarely Never
28. Please List Other Frequently Occurring Indicators of Stress

Section Two

Activities and Practices

Please respond to how often you engage in the following practices by selecting the appropriate response. The scale range is from never, seldom (*4-5 days per year*), sometimes (*4-5 days per month*), fairly regularly (*usually 1-2 days per week*), and regularly (*3+ days per week or as appropriately applies*).

1. Aerobic Activities (Such as Walking, Running, Hiking, Biking, Jogging, Aerobics) for at Least 30 Minutes Three Times per Week.

Never Seldom Sometimes Fairly Regularly Regularly

2. Practice Mental Revitalization through Decision Making, Research, Conferences, Etc.

Never Seldom Sometimes Fairly Regularly Regularly

3. Read Newspaper/Journals or Other Current Publications

Never Seldom Sometimes Fairly Regularly Regularly

- ○ ○ ○ ○
4. Participate in Activities with Immediate Family
 Never Seldom Sometimes Fairly Regularly Regularly
 ○ ○ ○ ○ ○
5. Complete Home Maintenance Activities for 30 Minutes or More
 Never Seldom Sometimes Fairly Regularly Regularly
 ○ ○ ○ ○ ○
6. Read Spiritual Books and Materials
 Never Seldom Sometimes Fairly Regularly Regularly
 ○ ○ ○ ○ ○
7. Generally Consume a Low-Fat Diet
 Never Seldom Sometimes Fairly Regularly Regularly
 ○ ○ ○ ○ ○
8. Drink at Least 8 Cups of Water Daily
 Never Seldom Sometimes Fairly Regularly Regularly
 ○ ○ ○ ○ ○
9. Avoid Eating Prepackaged and Convenience Foods
 Never Seldom Sometimes Fairly Regularly Regularly
 ○ ○ ○ ○ ○
10. Use of Sun Block When Exposed To Sun
 Never Seldom Sometimes Fairly Regularly Regularly
 ○ ○ ○ ○ ○
11. Use of Seatbelt When Traveling
 Never Seldom Sometimes Fairly Regularly Regularly
 ○ ○ ○ ○ ○
12. Practice Spiritual Renewal Activities
 Never Seldom Sometimes Fairly Regularly Regularly
 ○ ○ ○ ○ ○
13. Participate In Leisure Activities (Such As Golf) With Friends
 Never Seldom Sometimes Fairly Regularly Regularly
 ○ ○ ○ ○ ○
14. Make Time for Visiting Others Such as Parents, or Elderly Relatives or Friends
 Never Seldom Sometimes Fairly Regularly Regularly
 ○ ○ ○ ○ ○
15. Find Humor/Laugh
 Never Seldom Sometimes Fairly Regularly Regularly
 ○ ○ ○ ○ ○
16. Get at Least 6 Hours of Sleep per Night
 Never Seldom Sometimes Fairly Regularly Regularly
 ○ ○ ○ ○ ○
17. Volunteer/Help Others
 Never Seldom Sometimes Fairly Regularly Regularly
 ○ ○ ○ ○ ○
18. Generally Consume Three Balanced Meals a Day
 Never Seldom Sometimes Fairly Regularly Regularly
 ○ ○ ○ ○ ○

19. Participate in Sports Such as Canoeing, Kayaking, Skiing, and/or Rowing
 Never Seldom Sometimes Fairly Regularly Regularly
20. Practice Weight Bearing Activities (Such as Free Weights, Machines, Push Ups)
 Never Seldom Sometimes Fairly Regularly Regularly
21. Participate in Competitive Sports (Such as Tennis, Racquetball, Volleyball, Basketball)
 Never Seldom Sometimes Fairly Regularly Regularly
22. Maintain Positive Outlook
 Never Seldom Sometimes Fairly Regularly Regularly
23. Engage In Professional Development Activities as Appropriate
 Never Seldom Sometimes Fairly Regularly Regularly
24. Engage in Thought Provoking Discussions
 Never Seldom Sometimes Fairly Regularly Regularly
25. Maintain a High Self-Esteem
 Never Seldom Sometimes Fairly Regularly Regularly
26. Find Beauty and Meaning in Nature or Surroundings
 Never Seldom Sometimes Fairly Regularly Regularly
27. Set Priorities
 Never Seldom Sometimes Fairly Regularly Regularly
28. Actively Listen to Others
 Never Seldom Sometimes Fairly Regularly Regularly
29. Decisions Guided by Spiritual Beliefs
 Never Seldom Sometimes Fairly Regularly Regularly
30. Experience Love and Joy
 Never Seldom Sometimes Fairly Regularly Regularly
31. Preserve a Strong Support Network of Friends
 Never Seldom Sometimes Fairly Regularly Regularly
32. Interpret Most Stressful Issues at Work Professionally Rather Than Personally
 Never Seldom Sometimes Fairly Regularly Regularly
33. Assume Leadership Roles in Family Activities
 Never Seldom Sometimes Fairly Regularly Regularly

34. Assume Active or Leadership Role in Spiritual Activities
 Never Seldom Sometimes Fairly Regularly Regularly
35. Obtain Regular Physical Exams (*Select Always if Yearly Exams are Maintained*)
 Never Seldom Sometimes Fairly Regularly Regularly
36. Involved in Community/Civic Activities Outside Of Workplace
 Never Seldom Sometimes Fairly Regularly Regularly
37. Actively Engage in Maintaining Long-Term Friendships
 Never Seldom Sometimes Fairly Regularly Regularly
38. Celebrate Others Successes
 Never Seldom Sometimes Fairly Regularly Regularly
39. Deep Sea or Fresh Water Fish
 Never Seldom Sometimes Fairly Regularly Regularly
40. Practice Meditation/Visualization
 Never Seldom Sometimes Fairly Regularly Regularly
41. Read for Pleasure
 Never Seldom Sometimes Fairly Regularly Regularly
42. Listen/Play Music and/or Sing
 Never Seldom Sometimes Fairly Regularly Regularly
43. Write for Pleasure
 Never Seldom Sometimes Fairly Regularly Regularly
44. Practice Yoga
 Never Seldom Sometimes Fairly Regularly Regularly
45. Draw, Paint, or Other Forms of Art/Craft
 Never Seldom Sometimes Fairly Regularly Regularly
46. Attend/Participate in Dance
 Never Seldom Sometimes Fairly Regularly Regularly
47. Participate in Board Games, Cards, Puzzles
 Never Seldom Sometimes Fairly Regularly Regularly
48. Attend Concerts, Plays, or Art Series
 Never Seldom Sometimes Fairly Regularly Regularly
49. Travel (*Get Away*) for Leisure (*Select Regularly If Two or More Times per Year*)
 Never Seldom Sometimes Fairly Regularly Regularly

50. Quiet Time at Home (*Such As Dinner or Movie and Popcorn*)
- Never Seldom Sometimes Fairly Regularly Regularly
-

51. List Other Activities Practiced Regularly

Section Three

General Information

Please respond to the following general statements by selection the appropriate response.

What is/are your favorite relaxation activity/activities?

Considering all activities that you engage in, how much opportunity do you have to relax? The range is Never, Seldom, (few times per year), Sometimes (few times per month), Regularly (at least once a week), Always (daily).

- Never Seldom Sometimes Regularly Always
-

In the past three months, how would you describe your overall balance of wellness practices including spiritual, physical, mental, and social practices?

- Poor Fair Good Above Average Excellent
-

Overall, how would you rate your current level of stress as compared to one year ago?

- Much Worse Worse About the Same Somewhat Improved Greatly Improved
-

Overall, how would you rate your current management of stress as compared to one year ago?

- Much Worse Worse About the Same Somewhat Improved Greatly Improved
-

Gender

- Male
- Female

What is your current age in years? *Drop down Box*

How many years have you been a community college president? *Drop down box*

Indicate ethnic origin by selecting the appropriate response.

White African American Hispanic Native American Asian Alaskan Other

Submit Reset

Appendix C

Cover Letter

<p><i>Sherri Ratliff Dawson</i> Associate Professor, Program Developer Southwest Virginia Community College PO Box SVCC, Richlands VA 24211 email: sherri.dawson@sw.edu; boatun@naxs.net Phone 276-964-7245 Fax 276-964-7708</p>	
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August 7, 2003

Dear President _____,

The growing complexity of issues and responsibilities faced by today's community colleges has led to a combination of challenges for the individual holding the chief executive position of these institutions. The challenges are sometimes very positive and rewarding, and at other times generate a great deal of anxiety. Through research and observation, I have developed a particular interest and curiosity in the role wellness practices play in the management of stress. It has become increasingly evident that demands of the multifaceted workplace prevent engagement in these practices. Interest in this topic has been cultivated through teaching classes and conducting workshops on various wellness topics and stress management issues for a wide variety of audiences while at Southwest Virginia Community College.

This interest has led to my dissertation research, *The Relationship between Stress Levels and Wellness Practices of Community College Presidents*, as I finalize the Doctorate in Education degree from East Tennessee State University. The purpose of the study is to investigate the variety and level of wellness practices of community college presidents and the relationship of these practices to stress and its symptoms. To clarify the goals of the study

I have included a summary of the research questions, which can be viewed at the following link: [Research Questions](#)

Influencing the decision to draw upon community college presidents was the lack of information available on the management of stress for presidents and other administrators. However, a proliferation of information was obtainable on stress issues related to teachers and other staff members. You are one of several presidents from across the country randomly selected for this research. I would be honored to have you participate in this study by completing my survey. **(The electronic instrument is located on our college server and can be opened by clicking on the web address in the box below.)**

The results of this study will assist in the development of seminar topics relevant to community college presidents in their continuation or pursuit of a healthy and less stressful lifestyle. The information should be of interest and have meaning for you; therefore, I will send a summary of the results to those completing the survey. Additionally, the electronically filed dissertation will be accessible on the web. I will greatly appreciate your helping fulfill my educational goals by completing the survey. If you have questions please contact me at 276-964-7245 or email sherri.dawson@sw.edu

Sherril Ratliff Dawson
Associate Professor,
Southwest Virginia Community College

**** Survey Completion and Confidentiality Information ****

Below you will see an identifying number. ***Please record this number in the space provided at the beginning of the survey instrument.*** Upon completion and submission of the questionnaire, the data (void of questions) will return to the survey instrument's location on the SwVCC web page server. To identify those that have responded and allow for the resending of the instrument to those that were not returned, the manager of the server at

SwVCC has agreed to note and compile a list of the identifying numbers for the returned surveys; indicating that the instrument was returned. She will remove the identifying from the data and forward the data (without the identifying number) to my email address. After one week, she will send the list of returned identifying numbers. In no way can these numbers be matched with the data I received earlier. Much thought has gone into the plans for this method of data collection and I believe this process will provide the greatest degree of confidentiality for the collection of needed information. The returned data will be statistically analyzed to complete the findings and recommendations portion of the study.

Your Identifying Number is _____

*****Click Address to Complete Survey*****

<http://www.sw.vccs.edu/wellnesssurvey/survey.htm>

[\(Please copy and paste web address if your email does not support opening this link\)](#)

Note: As an alternative, you may print the instrument, complete and mail to me if you prefer.

I will reimburse postage, or will send a stamped envelope for the return of the instrument.

Again, ***thank you*** for your time.

Appendix D

Personalized Follow-Up Email Messages

First Personalized Follow-Up Email

<p><i>Sherril Ratliff Dawson</i> Associate Professor, Program Developer Southwest Virginia Community College PO Box SVCC, Richlands VA 24211 email: sherril.dawson@sw.edu; boatun@naxs.net Phone 276-964-7245 Fax 276-964-7708</p>	
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September 16, 2003

Dear President _____,

I know your schedule is very busy with the start up of a new term and trust that your college is off to a good start. I am sending this electronic letter to encourage your participation in my dissertation study. You are among a group of presidents randomly selected from AACC college presidents throughout the United States.

Answering the Likert type survey questions will only take a few minutes of your time and will allow me to bring closure to the project. **The electronic instrument is located on our college server and can be opened by clicking on the web address in the box below.** The box also contains an ***Identifying Number***, which is to be entered in the space provided at the beginning of the survey instrument. The purpose of this number and my plan for confidentiality is provided at the end of this letter.

The growing complexity of issues and responsibilities faced by today's community colleges has led to a combination of challenges for the individual holding the chief executive position of these institutions. Through research and observation, I have developed an interest in the role wellness practices play in the management of stress.

This interest has led to my dissertation research, *The Relationship between Stress Levels and Wellness Practices of Community College Presidents*, as I finalize a Doctorate in Education from East Tennessee State University. The purpose of the study is to investigate the relationship of various wellness practices to stress and its symptoms. To clarify the goals of the study I have included a summary of the research questions, which can be viewed at the following link: [Research Questions](#)

The results of this study will assist in the development of seminar topics relevant to community college presidents in their continuation or pursuit of a healthy and less stressful lifestyle. The information should be of interest and have meaning for you; therefore, I will send a summary of the results to those completing the survey. Additionally, the electronically filed dissertation will be accessible on the web. I will greatly appreciate your helping fulfill my educational goals by completing the survey. If you have questions please contact me at 276-964-7245 or email sherri.dawson@sw.edu

Sherri Ratliff Dawson
Associate Professor,
Southwest Virginia Community College

*Please record your Identifying Number in the space provided
at the beginning of the survey instrument*

Your Identifying Number is _____

Click Address to Complete Survey

<http://www.sw.vccs.edu/wellnesssurvey/survey.htm>

[\(Please copy and paste web address if your email does not support opening this link\)](#)

Note: As an alternative, you may print the instrument, complete and mail to me if you prefer. I will reimburse postage, or will send a stamped envelope for the return of the instrument. Again, *thank you* for your time.

Confidentiality Information

Upon completion and submission of the questionnaire, the data (void of questions) will return to the survey instrument's location on the SwVCC web page server. To identify those that have responded and allow for the resending of the instrument to those that were not returned, the manager of the server at SwVCC has agreed to note and compile a list of the identifying numbers for the returned surveys; indicating that the instrument was returned. She will remove the identifying from the data and forward the data (without the identifying number) to my email address. After one week, she will send the list of returned identifying numbers. In no way can these numbers be matched with the data I received earlier. Much thought has gone into the plans for this method of data collection and I believe this process will provide the greatest degree of confidentiality for the collection of needed information. The returned data will be statistically analyzed to complete the findings and recommendations portion of the study.

Second Personalized Follow-up Email

<p><i>Sherri Ratliff Dawson</i> Associate Professor, Program Developer Southwest Virginia Community College PO Box SVCC, Richlands VA 24211 email: sherri.dawson@sw.edu; boatun@naxs.net Phone 276-964-7245 Fax 276-964-7708</p>	
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October 8, 2003

Dear President _____ ,

Through a previous request, I stated that you were among a group of presidents randomly selected from AACC college presidents throughout the United States for my dissertation study. I still do not have your response and your participation will make a significant difference in the outcome. I am writing to see if you would mind completing the instrument.

Answering the Likert type survey questions will only take a few minutes of your time and will allow me to bring closure to the project. **The electronic instrument link is located in the box below.** The box also contains an *Identifying Number*, which should be entered in the space provided at the beginning of the survey instrument. This number, used for follow-up purposes, is removed from the returned data by our webmaster. Confidentiality measures are provided at the end of this letter.

The growing complexity of issues and responsibilities faced by today's community colleges has led to a combination of challenges for the individual holding the chief executive position of these institutions. Through research and observation, I have developed an interest in the role wellness practices play in the management of stress.

This interest has led to my dissertation research, *The Relationship between Stress Levels and Wellness Practices of Community College Presidents*, as I finalize a Doctorate in Education from East Tennessee State University. The purpose of the study is to investigate the relationship of various wellness practices to stress and its symptoms. To clarify the goals of the study I have included a summary of the research questions, which can be viewed at the following link: [Research Questions](#)

The results of this study will assist in the development of seminar topics relevant to community college presidents in their continuation or pursuit of a healthy and less stressful lifestyle. The information should be of interest and have meaning for you; therefore, I will send a summary of the results to those completing the survey. Additionally, the electronically filed dissertation will be accessible on the web. I will greatly appreciate your helping fulfill my educational goals by completing the survey. If you have questions please contact me at 276-964-7245 or email sherri.dawson@sw.edu

Sherri Ratliff Dawson
Associate Professor,
Southwest Virginia Community College

*Please record your Identifying Number in the space provided
at the beginning of the survey instrument*

Your Identifying Number is _____

Click Address to Complete Survey

<http://www.sw.vccs.edu/wellnesssurvey/survey.htm>

[\(Please copy and paste web address if your email does not support opening this link\)](#)

Note: As an alternative, you may print the instrument, complete and mail to me if you prefer. I will reimburse postage, or will send a stamped envelope for the return of the instrument. Again, *thank you* for your time.

Confidentiality Information

Upon completion and submission of the questionnaire, the data (void of questions) will return to the survey instrument's location on the SwVCC web page server. To identify those that have responded and allow for the resending of the instrument to those that were not returned, the manager of the server at SwVCC has agreed to note and compile a list of the identifying numbers for the returned surveys; indicating that the instrument was returned. She will remove the identifying from the data and forward the data (without the identifying number) to my email address. After one week, she will send the list of returned identifying numbers. In no way can these numbers be matched with the data I received earlier. Much thought has gone into the plans for this method of data collection and I believe this process will provide the greatest degree of confidentiality for the collection of needed information. The returned data will be statistically analyzed to complete the findings and recommendations portion of the study.

Final Personal Email Reminder

<p><i>Sherri Ratliff Dawson</i> Associate Professor, Program Developer Southwest Virginia Community College PO Box SVCC, Richlands VA 24211 email: sherri.dawson@sw.edu; boatun@naxs.net Phone 276-964-7245 Fax 276-964-7708</p>	
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October 16, 2003

Dear President _____,

This is a final reminder regarding the national community college presidential study on wellness. I will begin compiling the results on Tuesday, October 22. Please make time to complete your survey by midnight, Monday, October 21. For your convenience, I have included your ID number and a link to the electronic instrument below. Several participants have chosen to print the instrument and faxed to 276-964-7531. You may prefer this option as well.

If you have completed the survey and received this notice, please notify me and I will double check the list of returned ID numbers to insure that you receive a summary of this study. I really appreciate your time and your response is very important to me.

With warmest regards,

Sherri Ratliff Dawson

<p>Your ID Number _____</p> <p>* Link to Survey *</p> <p>http://www.sw.vccs.edu/wellnesssurvey/survey.htm</p>
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Appendix E Tenure as President

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	-1	20	6.7	6.8	6.8
	1	16	5.4	5.4	12.2
	2	22	7.4	7.5	19.7
	3	19	6.4	6.4	26.1
	4	25	8.4	8.5	34.6
	5	12	4.0	4.1	38.6
	6	17	5.7	5.8	44.4
	7	31	10.4	10.5	54.9
	8	11	3.7	3.7	58.6
	9	13	4.4	4.4	63.1
	10	12	4.0	4.1	67.1
	11	5	1.7	1.7	68.8
	12	13	4.4	4.4	73.2
	13	7	2.4	2.4	75.6
	14	6	2.0	2.0	77.6
	15	13	4.4	4.4	82.0
	16	5	1.7	1.7	83.7
	17	9	3.0	3.1	86.8
	18	5	1.7	1.7	88.5
	19	4	1.3	1.4	89.8
	20	13	4.4	4.4	94.2
	21	1	.3	.3	94.6
	23	2	.7	.7	95.3
	24	2	.7	.7	95.9
	25	2	.7	.7	96.6
	27	2	.7	.7	97.3
	30	4	1.3	1.4	98.6
	33	1	.3	.3	99.0
	34	1	.3	.3	99.3
	37	1	.3	.3	99.7
	41	1	.3	.3	100.0
	Total	295	99.3	100.0	
Missing	System	2	.7		
Total		297	100.0		

Appendix F

Stress Sources of Community College Presidents

Stress sources are ranked in descending order.

	N	Range	Mean	SD
Funding Issues	294	4	3.51	.915
Internal Budget	294	4	3.19	.909
Personnel Conflicts	295	4	2.97	.989
Multifaceted Demands	295	4	2.93	.877
Laying Off Staff Members	296	4	2.88	1.466
Personnel Negotiations	296	4	2.84	1.037
State Government	294	4	2.79	1.000
Time Management	293	4	2.69	1.007
Balancing Work/Family	293	4	2.69	.956
Inadequate Resource/Equipment	294	4	2.68	1.008
Loss Key Administrators	296	4	2.62	1.116
Inadequate Facility	294	4	2.53	.983
Accountability Issues	293	4	2.51	.946
Deadlines	293	4	2.47	.893
Upcoming Accreditation	295	4	2.47	1.160
Technology Changes	295	4	2.46	.860
9/11	294	4	2.43	1.048
Presidential Evaluation	294	4	2.36	.959
Staffs Vision	293	4	2.35	.945
Enrollment	295	4	2.32	.930
Accelerating Tech	294	4	2.26	.830
International Conflicts	295	4	2.25	.886
Policy/Procedure Issues	295	4	2.24	.868
Personnel Contract	295	4	2.19	.955
Retention Issues	294	4	2.19	.861
Risk Management	295	4	2.19	.863
Physical Maintenance Staff	292	4	2.17	1.052
Conflicts w/ Local Board	294	4	2.16	1.192
Terrorist Threats	294	4	2.15	.915
Stock Market	293	5	2.14	1.029
Interaction with College Board	295	4	2.12	.924
Diversity Issues	295	4	2.09	.906
Personal Retirement	293	4	2.08	.953
Discrepancies Outside Organization	293	4	2.08	.926
Death of Associate	294	4	2.07	1.259
Out-of-Town Meetings	295	4	2.05	.913
Loss Board Member	295	4	2.03	1.095
Financial Mgmt	293	4	2.03	.917
Failing Health Family	294	5	2.01	1.656

Stress Sources for Community College Presidents...Continued

Career Change	295	4	2.01	1.348
Community Issues	295	3	2.00	.793
Union Issues	291	4	1.98	1.177
Ethical Challenges	294	4	1.98	.951
Children Issues/Responsibilities	295	5	1.95	1.302
Local Officials/Leaders	293	4	1.91	.825
Retire Workforce	295	4	1.88	.865
Home Maintenance	294	4	1.86	.849
Increased Violence	296	4	1.85	.849
Relationship with Spouse	294	5	1.83	1.117
Other Colleges	292	4	1.80	.827
Traffic	295	4	1.71	.886
Holidays	293	4	1.66	.887
Tenure	293	4	1.56	.876
Mortgage/Loans	295	5	1.51	.968
Identity Theft/Security	295	4	1.51	.812
Vacation	294	5	1.46	.857
Personal Illness	295	5	1.44	1.506
Death Friend	294	5	1.26	1.581
Death Family Member	295	5	1.15	1.731
Home Construction/Renovation	295	5	1.14	1.220

Appendix G

Self-Reported Stress-Related Issues

Self-Reported Occasionally Occurring Events Causing Stress

Self-reported occasionally occurring events causing stress are listed by fiscal, governance, board/political, public relations, personnel, student, and facility/other concerns.

Fiscal Concerns

- Budget stresses when we're experiencing annual double digit enrollment increases
- Tremendous growth and diminished resources
- Budget cuts
- Budget cutting
- Not having the finances to meet mission
- Managing repeated budget cuts
- Funding cutbacks
- Budget reductions beyond a reasonable level
- Budget cuts
- Budget shortfall
- Budget cuts
- Budgetary reductions
- Financial reductions
- Reduction in funding of 24% for current fiscal year
- Budget delays/bureaucracy associated with state's fiscal shortfall of income
- Significant loss of budgetary dollars
- Funding shortages
- Loss of appropriations
- Loss of major donor
- Increased demands for fund raising and for legislative advocacy
- Raising \$3 million more dollars
- Financial difficulty caused by insufficient state funding and resulting increases in tuition
- Continuous extreme and severe budget cuts by state legislature ... *five times in last nine months*
- Inconsistent funding from the state
- State funding issues
- Budget revisions by the state
- Cuts in state and local funding sources
- Lack of State Funding
- Other budgetary issues
- Which new programs to fund
- Which programs to expand upon
- Funding new programs
- Budget management
- Budget development

Governance Concerns

- New legislation
- Negotiations with governmental funding partners/sources
- Governance issues

Self-Reported Occasionally Occurring Events Causing Stress ... continued

- Legislative activities
- Actions of state higher education authority to re-organize colleges in the state
- Faculty/Staff concerns over fairness of system-determined salary/benefits package
- State System Mandates - high stress
- Legislature (as a whole or a particular members)

Board/Political Concerns

- Board misinformation campaign about public higher ed/micromanaging
- Micromanagement by board members
- Twice monthly board meetings
- Board member involvement in college matters
- Board member attempting to get too involved in administration of college
- Board members interfering with daily operation
- Lack of board commitment to fund raising
- Board meetings
- Board elections...sometimes
- Foundation board meetings
- Political appointment to board.
- Political affiliations of board members that could potentially be problematic
- Political issues
- Local political disagreements that could affect funding
- Tax ballot issue for the college
- Economic conditions in service area
- Retired union leader on campus full time
- Unreasonable demands from union leaders, *I'm sure they would not see their demands as unreasonable*
- Organized labor issues
- Pending litigation; collective bargaining
- Lawsuits filed against the college

Public Relations Concerns

- Concerns about press coverage of an incident / decision and related political or community fall-out
- News reporting that does not give the appearance of being objective
- Negative or misleading media coverage
- Constant review and slanted/biased stories from local newspapers and "taxpayer advocates" that distort facts
- Any news-worthy event that casts a negative light on the college i.e., student or faculty arrest, fraud, audit findings, etc.
- Public relations on FOIA issues
- Complaints by special interest groups

Personnel Concerns

- Disputes between administrators
- Conflicts among colleagues with leadership responsibilities

Self-Reported Occasionally Occurring Events Causing Stress ... continued

- Increasing interpersonal tensions between employees
- Violence between employees
- Arrest of high profile employee
- Personnel discipline
- Unprofessional faculty behavior
- Firing an unproductive employee
- Termination of good friends and/or colleague CEOs
- Termination of an employee
- Morale issues
- Faculty or staff clicks
- Faculty and staff grievances
- Personnel grievances
- Major personnel issues
- Personnel issues...at times
- Number of new faculty and staff to hire
- Hiring
- Building a team
- Illness of personnel and their families
- Accidents that result in personal injury to faculty/staff
- Faculty issues not related to personnel
- Faculty dissatisfaction over unfounded claims of lack in participation in decision-making process

Student Concerns

- Death of enrolled student
- Student deaths through domestic violence
- Death of student (s)
- Accidents that result in personal injury to students
- Violence between students
- Homelessness experienced by students on a routine basis and attempts to find temporary housing
- Dissatisfaction expressed by former students
- Student complaints, threatening lawsuit
- Student complaints
- Enrollment fluctuations

Buildings/Other

- Multiple projects--deadlines (usually self-imposed)
- High profile visitors to campus
- Building facilities which include fund raising
- Construction of new building
- Construction projects
- Issues related to residence halls
- Decisions as to which equipment to purchase

Self-Reported Occasionally Occurring Events Causing Stress ... continued

- Major catastrophe
- Athletics Issues
- Fiscal audit
- Weather driven campus closings

Self-Reported Regularly Occurring Workplace Activities Causing Stress

Self- reported regularly occurring workplace activities causing stress listed by fiscal issues; superiors/personnel/board/culture issues; community issues; campus issues; personal issues and other comments.

Fiscal Issues

- Inadequate funding from state
- Finances of the Child Development Center
- Millions to spend from a bond campaign for new facilities ... planning, designing, renovating our campus ... *While exciting it is at least moderate stress to accomplish all we need to do... All that money and none for supplies*

Superiors/Personnel/Board/Culture Issues

- The most stressful factor is working with the state's chancellor office
- Relationship w/supervisor
- Dealing with an ineffective but belligerent college foundation director who reports to another board
- Inadequate executive assistant support
- Patience in developing fairly inexperienced administrative staff
- Inadequate staffing issues
- On physical plant staffing - staffing is adequate, performance isn't.
- Board adopted policy to eliminated future tenure
...This action is still a "battle cry" among the faculty
- Legal action brought by former employees

Community Issues

- Interruptions from the general public
- Time for public relations
- Balancing public and campus roles
- Erosion of political and popular support for higher education at all levels

Campus Issues

- Changing campus culture
- Construction projects
- Outsourcing
- EEOC and affirmative action issues
- Campus security

Personal Issues/Comments

- Finishing my dissertation for my doctorate (which is work related) is moderately stressful
- My personality keeps things in perspective
- Several items checked as no stress, *simply means that I enjoy the "stress" of that activity---they are positive stressors*

Self-Reported Personal or National Events or Activities Causing Stress

Self-reported regularly occurring personal and or national stressors are listed by national threat concerns; family members concerns; career, home, and personal concerns; and other global concerns. The most frequent concern were those related with national threat concerns

National Threat Concerns

- Great concern about civil rights violations in legislation dealing with 9-11
- Related to national terrorism ... *Campus location is 1/2 mile from major refinery, therefore disaster planning has taken on a whole new meaning for us on campus*
- Travel by airplane ... *extremely stressful since 9/11*
- After four consecutive years, due to world tensions ... *I no longer make an annual trip abroad*
- I am active in Military Reserves ... *therefore the last 3 questions have more relevancies*
- Interview overseas in unstable area of world
- Worry about son in military
- Increased racial tension
- Air travel

Family Member Concerns

- Parental health decline and ensuing decisions
- Parents health problems
- Children's relationships

Home and Personal Concerns

- Indecision about career
- Own career planning and goals
- Selling a house, building a house and moving
- Search for new house
- Not having a personal relationship
- Managing home and work; conflicting schedules
- Time for community events
- Shopping, the hassle that come with it, is moderately stressful

Global Concerns

- Concern about lack of health care for Americans
- Concern for lessening of environmental standards
- Moving high end jobs off-shore
- The effect a poor economy on students and staff

Appendix H

Feelings, Characteristics, and Symptoms

Ranked in Mean Descending Order	N	Range	Mean	sd
Sense of Satisfaction	296	3	4.65	.652
Sense of Achievement	296	3	4.63	.629
Sense of Fulfillment	296	3	4.59	.673
Exhilarated	296	4	3.98	.902
Impatience	296	4	3.50	1.002
Controlling	296	4	3.07	1.107
Neck/Back Pain	296	4	3.06	1.278
Over Eat	296	4	3.04	1.168
Irritability	296	4	3.04	.996
Forgetful	296	4	2.68	.990
Aggressive	296	4	2.58	1.048
Negative Feelings	296	4	2.57	.910
Easily Fatigued	296	4	2.54	1.095
Headache	296	4	2.38	1.172
Heartburn	296	4	2.24	1.280
Nervous Mannerisms	296	4	2.19	1.066
Upset Stomach	296	4	2.16	1.111
Rapid/Pound Heartbeat	295	4	2.12	1.080
Depressed	296	4	2.04	.996
Alienation	296	4	2.02	1.101
Powerlessness	296	4	1.94	.972
Feel Hopeless	296	4	1.88	1.062
Dry Mouth	296	4	1.88	1.124
Consume Alcohol	296	4	1.84	1.166
Sweaty Palms	296	4	1.69	.987
Under Eat	296	4	1.68	1.019
Smoking	296	4	1.33	1.001

Appendix I

Self-Reported Feelings, Characteristics, and Symptoms

Self-reported symptoms of stress are grouped by mental/ emotional symptoms and physical symptoms. Insomnia was the number one self-reported problem.

Mental/Emotional Symptoms

- Inability to focus on task
- Process problem
- Increased activity
- Nervous/irritable
- Frustration
- Frustration
- Dissatisfaction

- Insomnia
- Sleep problems
- Loss of sleep
- Sleeplessness
- Sleep disorders
- Interrupted sleep - occasionally
- Insomnia
- I would think "sleeplessness" would be on the list ... *In years past that were high stress years, this was the major effect. Not now. I'm too "seasoned."*

Physical Symptoms

- Increased blood pressure
- Bouts of asthma, RA
- Fibromyalgia
- I have a chronic health condition which causes fatigue
...*So far I have been able to manage it and work but for how long?*
- Dry Scalp
- Rash

Appendix J

Wellness Practices of Community College Presidents

Wellness practices of community college presidents are ranked in descending order.

	N	Range	Mean	sd
Use Seatbelt	293	4	4.82	.564
Positive Outlook	292	4	4.65	.569
Read News/Journals	295	3	4.63	.635
Set Priorities	293	3	4.61	.613
Actively Listen	292	4	4.59	.617
High Self Esteem	295	4	4.57	.650
Beauty Nature	295	4	4.52	.768
Humor/Laugh	295	4	4.52	.699
6 Hours Sleep	293	4	4.48	.770
Experience Love/Joy	293	3	4.46	.704
Celebrate Others Successes	292	4	4.30	.776
Profession Rather Than Personal	294	4	4.36	.710
Physical Exam	292	4	4.35	.886
Participate w/Immediate Family	295	4	4.32	.857
Community/Civic Activities	294	4	4.31	.913
Family Leadership	294	4	4.22	.822
Quiet Home Time	295	4	4.21	.855
Long-Term Friends	294	4	4.18	.978
Travel	290	3	4.18	.976
Part. Discussions	294	4	4.17	.744
Lister/Play Music	295	3	4.17	.901
Strong Network Friends	294	3	4.11	.926
Professional Development	293	4	4.04	.816
Read for Pleasure	295	4	3.97	1.049
Volunteer/Help Others	291	4	3.82	.933
Aerobic Activity	294	4	3.80	1.173
Home Maintenance	295	4	3.73	1.021
Decisions Spiritually Based	294	4	3.65	1.300
3 Square Meals	294	4	3.63	1.142
Avoid Prepackaged Foods	293	4	3.56	1.120
Low Fat Diet	294	4	3.52	1.104
Visit Elderly Family/Friends	294	4	3.50	.980
Mental Revitalization Activities	295	4	3.46	.975
Use Sun Block	292	4	3.46	1.285
Concerts/Plays/Art Show	295	4	3.44	.920
Spiritual Practices	292	4	3.39	1.325
Activities w/Friends	295	4	3.37	1.105

Wellness Practices of Community College Presidents...Continued

	N	Range	Mean	sd
8 Cups Water	291	4	3.26	1.165
Read Spiritual	293	4	2.93	1.257
Spiritual Leader Role	291	4	2.91	1.275
Weight Bearing	293	4	2.85	1.477
Cards/Board Games/Puzzles	295	4	2.60	1.141
Sports Ski/Boating	291	4	2.37	1.172
Write Pleasure	295	4	2.31	1.114
Meditate/Visualization	293	4	2.30	1.193
Participate/competitive Sports	293	4	2.05	1.201
Fish	294	4	1.85	1.133
Engage Artwork	290	4	1.76	1.103
Yoga	293	4	1.39	.902
Attend/Participate Dance	129	4	1.08	.478

Appendix K

Self-Reported Wellness Practices

Self-reported wellness practices are listed alphabetically. Identical responses are grouped together with the number of responses indicated.

- "Baby-sit" my grandchildren
- Being outdoors
- Boating
- Care of pets
- Cook
- Listen to audio books downloaded from internet
- Cooking
- Daily swimming
- Dinner
- Do NOTHING
- Play with our dog
- Take care of two dogs
- Entertain in my home
- Farm labor
- Finding ways to bring humor to the job
- Fishing
- Garden (2 responses)
- Golf (3 responses)
- Hiking
- Home and yard projects which require physical exertion as well as careful planning -- *that focus on projects requiring physical activity is the best stress reliever I know*
- Horseback riding
- "Surf" the Internet to read news, weather, other interesting information
- Jog regularly
- Journaling
- Movies (2)
- Numismatics
- Regularly participate in sports activates with my children in a coaching/ training fashion
- Remodel
- Sailing
- Shopping (2 responses)
- Spend time in pool
- Sporting events
- Sports
- Take kids on trips - nieces and nephews
- Take long weekends away from college town
- Trap shooting and hunting
- Travel (2 responses)
- Try new restaurants,
- Walking our two greyhounds
- Woodcarving
- Yard and farm
- Yard work and gardening

Appendix L

Community College President's Favorite Ways to Relax

Favorite ways to relax were self-reported. Comments are arranged in alphabetical order. Those responses with identical information have been numerically categorized.

Art, golf
Being at home with family in the evenings and on weekends
Being home and doing activities with my family
Being outside in nature
Bike riding, canoeing, hiking, other physical activity outdoors
Boating, reading
Brisk walking while listening to music
Building street rods and/or work on house
Conversation and dates with my husband, singing, playing piano, playing handbells, church, reading
Craft work: knitting, cross-stitch, and quilting
Dinner with my spouse and friends
Dinner with my wife
Drinking, watching college football
Driving sports cars, reading
Engaging in board games, relaxing at home
Exercise at the local gym or at home
Exercise, yard work, woodworking
Exercise/reading/theatre
Family activities, tennis, reading
Family activities; kayaking
Family time (2)
Fishing (3)
Fishing, gardening and lawn Care
Fishing, gardening and lawn care
Fishing, horseback riding, walking, reading
Flying (pilot)
Gardening (2)
Gardening and reading. Occasionally needlework and jigsaw puzzles.
Gardening, reading, music, dinner with friends, traveling
Gardening, reading, traveling
Getting away to the beach, lake, and mountains/listening to music.
Going to country auctions, browsing through flea markets and antique shops, listening to jazz music while reading the Sunday NT Times or W Post
Going to our lake property and boating
Going to the seashore and relaxing. Theater and/or movies
Avid golfer
Golf (12)
Golf and reading
Golf, fishing
Golf, Home Time, Beach
Golf, physical activity, dog
Golf, reading (2)
Golf, reading, listening to music, movies
Golf, reading, walking
Golf/spending time in my pool/hosting dinner parties in my home

Favorite Ways to Relax... Continued

Golf; basketball; reading for pleasure; board games with family; sports (soccer, football, basketball, golf) with family
Handball, golf
Hanging out with my partner and kids
Hiking
Hiking in the mountains, attending concerts, singing, directing choirs, playing the piano, reading, traveling, shopping for antiques, cooking
Hiking, being outdoors, traveling,
Hiking; kayaking
Home maintenance and lawn mowing
Horseback riding, watching football games
Jogging, quiet night at home
Jogging; golf; time with grandchildren
Knitting, golf
Motor sports, shopping w/Wife
Music and reading and exercise walking
Music and the arts, sports activities, and traveling
Music, being with my dogs, reading for pleasure
Music, reading, walking, cooking
Out at my farm with my horses!
Outdoor activities including hunting, fishing, hiking with bird dogs, scuba diving, snow skiing, softball, racquetball
Physical activities, reading, time with family when possible (hard to do--am doing a long distance commute with wife--sons live elsewhere
Physical Exercise
Playing tennis with my daughter relaxes me; reading; attending the symphony or a play; and playing with my new puppy
Prayer; quiet time
Projects requiring physical activity, running/biking, and reading
Reading (4)
Reading and babysitting grandson
Reading at the lake
Reading boating grandchildren care
Reading fiction/cooking for my family
Reading fiction/recording music/and exercising with free weights and elliptical machine
Reading for pleasure / watching TV / doing anything with my Wife
Reading for pleasure, hiking, sitting quietly with music playing, knitting
Reading in front of the fireplace, painting pictures, home maintenance
Reading, Cooking, Entertaining, Swimming
Reading, cycling, jogging, movies
Reading, doing needlework, listening to music
Reading, fishing, yard work
Reading, gardening
Reading, gardening, being in the outdoors
Reading, golf, sports events, theater, concerts, walking, talking with friends
Reading, History, Walking/Running, Travel
Reading, jogging, swimming
Reading, knitting
Reading, movies, quiet time
Reading, music, playing a guitar
Reading, playing and listening to music, gardening
Reading, playing with 10-year old son, Boy Scout volunteering
Reading, swimming, walking, watching sports
Reading, talking with spouse, glass of wine with spouse

Favorite Ways to Relax... Continued

Reading, traveling, jogging, aerobics
Reading, walking the beach, attending church
Reading, walking, canoeing
Reading, walking, historical research
Reading, watching television, listening to music, sports activities, camping
Reading/cooking/travel/music
Relax with good nonfiction novel/ spend time with my wife and children
Running (long distance) - 111 marathons
Running, biking, free weights
Running, reading
Shopping
Shopping!
Shopping, traveling
Singing in a quartet and playing in a rock band, jogging
Ski, Read, Scuba, Sail, Golf, time with family
Skiing, model shipbuilding, model railroading, reading
Spa treatments (facials, massage, manicure, pedicure
Square dancing, boating, metal and wood craft
Surf fishing, being at the beach, reading
Swimming, racquetball, walking with spouse, reading (On "current level of stress" question below, we have an accreditation visit next week. Otherwise it would be the same.)
Swimming, reading, going to the zoo, visiting family and friends, music
Swimming, reading, working in the yard, having dinner at home
Tennis (3)
Tennis, golf, family gatherings
Tennis, racquetball, swimming,
Tennis, swimming, Harleys, movies
Theatre, Art, Music
Time alone
Time w/Family and the beach
Time with family and friends
Travel, massage, reading, hiking
Travel, spending time with family and friends
Traveling/reading/movies/golf
TV Sports – playing cards
Walking (3)
Walking on beach reading and cooking for others
Walking the dog, reading, listening to music
Walking, hiking
Walking, kayaking, biking
Walking/running, reading
Walking/talking with my wife and playing/walking with our dog
Watching baseball games on TV
Watching football games on TV; Sun bathing; Attend fine arts performances
Watching movies, listening to music, skiing, riding my motor cycle on back roads
Watching the ocean waves hit the shore.
Watching videos with family; baseball; reading
Water sports
Woodworking, gardening, cars, reading
Work with wood or fix things
Working on the computer at home
Working out; reading; biking; sailing
Working outside/skiing
Working with tractor and equipment in yard and on farm

Favorite Ways to Relax...Continued

Writing, painting

Yard and garden work, singing

Yoga, reading, golf, travel

Coordinator: Horticulture Management Curriculum, Student Advisor, 1997-Current

Co-Coordinator, Advisor: Customer Care Center Careers Studies Curriculum, 1997-Current

Board of Directors: University of Appalachia, 2003-Current

Advisory Board: School Health Advisory Board, Russell County Schools, 1995-Current

Board of Directors: St. Chivas Corporation, CMCH, 1998-Current

Chairman: Furnishings and Finishes Committee; Member, Building Committee, Appalachian School of Law, 1995-1998

State Committee Member: Restructuring Home Economics Curriculum, Department of Education, Richmond, Virginia, 1990-1993

Director: Work and Family Grant, SwVCC, 1988-1991

Writer/Director: Virginia Home Economics Cooperative Education (HECE) Pilot Project, 1986-1988

Presenter: Enhancing Workplace Performance: Communication is Key! ALCOA Wheels, Inc., 2003

Presenter: Balancing Wellness in the New Millennium, Clinch Valley Community Action, Tazewell, VA, 2003

Presenter: Diet Analysis, Faculty Inservice, SwVCC, Richlands, VA 2003

Presenter: Creating a Winning World Class Organization through Change, ARCHS, Inc., 2003

Presenter: Stress Solutions in a Turbulent World, SwVCC Classified Staff Inservice, 2003

Presenter: When It Rains...Let It! Regional Head Start, Norton, VA. 2003

Presenter: Various Wellness Topics: Head Start Retreat, Pigeon Forge, TN, 1994, 1996, 1998-2003

Presenter: Working on Wellness in the New Millennium, Buchanan General, 1999

Presenter: Keynote Address, Working on Wellness through the New Millennium: Women's Wellness Retreat, Breaks, Virginia, 1997

Presenter: When It Rains Let It (Stress Management): Much Ado About Women, Tazewell, Virginia, 1998

Presenter: F.I.T. to a T., VCCA State Conference, 1996

Presenter: Stress Management: Department Mines, Minerals, Energy,
1993

Presenter: Positive Lifestyles: Third Annual Conference of Wellness,
Dallas, Texas 1990

Presenter: Positive Personal Power: National Volunteers Seminar,
Quorum Health Care, Nashville, Tennessee 1990

Presenter: Personal Wellness: State Chiropractic Annual Scholarships
Conference, 1989

Member: Rapid Response Team - Displaced Worker Retraining
Faculty Exchange, Northern Ireland, 1997

Published: National Home Economics Journal - Illinois Teacher,
Volume 34, Number 2, November/December, 1990

Published: VCCA Journal, Volume 9, Number 2, Summer 1995

Published: Delta Kappa Gamma International Directory of Writers

Certifications: Instructor - CPR and First Aid: American Heart
Association, American Red Cross; Proctor: National Restaurant
Association - ServSafe

Affiliations: Delta Kappa Gamma, Kappa Omicron Phi, Gamma Beta Phi, Phi
Theta Kappa, Phi Kappa Phi
United States Daughters of the American Revolution (USDAR),
Levisa River Chapter
Chamber of Commerce, Buchanan County, Virginia
Garden United Methodist Church, Oakwood, Virginia