Perceived Stress, Holistic Wellness, and Leadership Practices of K-12, Public School, Building Level Administrators as Influenced by Selected Variables

A Dissertation proposal submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Educational Leadership

By

Walter Harlen Coulter

Dr. Bill Thornton/Dissertation Advisor

May 2011
THE GRADUATE SCHOOL

We recommend that the dissertation prepared under our supervision by

WALTER HARLEN COULTER

entitled

Perceived Stress, Holistic Wellness, And Leadership Practices of K-12, Public School, Building Level Administrators as Influenced by Selected Variables

be accepted in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Billy Thornton, Advisor

Thomas Harrison, Committee Member

Janet Usinger, Committee Member

Rita Laden, Committee Member

Melanie Minarik, Graduate School Representative

Marsha H. Read, Ph. D., Associate Dean, Graduate School

May, 2011
Abstract

Increased job complexity, rising standards, and greater demands for accountability have led to increased numbers of administrative vacancies nationwide. Many principals are reporting that the expanded job responsibilities are simply not manageable. The business sector has addressed wellness in relationship to productivity; however, within public educational leadership the possible relationships among wellness, leadership, and stress are not being adequately studied. The purpose of this study was to determine if relationships exist among the perceived stress, holistic wellness, and leadership practices of K-12, public school, building-level administrators. The different demographic groups were compared with one another on the variables of perceived stress, holistic wellness, and leadership practices. This quantitative analysis indicated that significant positive correlations exist between the holistic wellness scores and leadership scores of K-12, public school, building-level administrators. Meanwhile, there are significant negative correlations between the perceived stress scores and the holistic wellness scores as well as with the leadership scores. The multiple regression analysis indicates that Coping Self, Social Self and Model the Way subscales are the significant predictors of the perceived stress scores of participants. Finally, the analyses of variance indicated that significant differences exist in group mean scores of holistic wellness, perceived stress, and leadership practices when respondents are grouped by the selected demographic variables (gender, administrative role, school level, school location, and school NCLB designation).
Acknowledgements

Writing a dissertation is an extremely demanding task, especially when one’s day job is that of a full-time, school administrator. As such, the task cannot be accomplished without the support, guidance, and good will of many outstanding individuals.

I wish to extend my sincere gratitude to my initial PhD advisor, Dr. Gary Peltier, for allowing me to pursue a line of inquiry considered outside the mainstream in educational leadership. His support of my study was of inestimable value to me and his retirement was a great loss to the field of education. That gratitude is also extended to Dr. Bill Thornton, my committee chairperson, who took charge of a faltering study and guided it to conclusion, despite having a myriad of responsibilities as a professor and department chairperson.

I offer a special thank you to Dr. Tom Harrison, a plank-owning member of my committee. Dr. Harrison encouraged my heart and helped me articulate my passion long before the study ever took form or shape. Dr. Melanie Minarik shared my vision and provided guidance, first as a professor, and later as a member of my committee. Dr. Janet Usinger and Dr. Rita Laden, also members of my committee, enlisted later on in the project but still provided valuable insight and feedback throughout the writing process.

Finally, I wish to thank my family (my father, Gordon; my mother, Mary Lu; my brothers, Ed, Sam, and Bill; my sister, Celeste; and my son, Zac) for all of their support and encouragement through the years. As much as I sacrificed to climb this mountain, their collective sacrifice was far greater than my own. For that, I will always be in their debt.
Table of Contents

Abstract ................................................................................................................................ i

Acknowledgements............................................................................................................. ii

Table of Contents ............................................................................................................... iii

List of Tables ................................................................................................................... viii

CHAPTER 1 Introduction................................................................................................... 1

  Statement of the Problem ................................................................................................ 3

  Purpose of the Study ....................................................................................................... 4

  Research Questions ......................................................................................................... 4

  Importance of the Study .................................................................................................. 5

  Research Design.............................................................................................................. 6

  Limitations ...................................................................................................................... 7

  Delimitations ................................................................................................................... 8

  Definitions....................................................................................................................... 9

  Overview of the Study .................................................................................................. 11

CHAPTER 2 Literature Review ....................................................................................... 12

  Introduction................................................................................................................... 12

  Chapter Overview ......................................................................................................... 12

  Reform Efforts .............................................................................................................. 13

  Time Management Paradigm ......................................................................................... 13

  Energy Management Paradigm ..................................................................................... 17
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enable Others to Act</td>
<td>43</td>
</tr>
<tr>
<td>Encourage the Heart</td>
<td>44</td>
</tr>
<tr>
<td>Leadership Practices of School Principals</td>
<td>44</td>
</tr>
<tr>
<td>Demographics</td>
<td>46</td>
</tr>
<tr>
<td>Gender</td>
<td>46</td>
</tr>
<tr>
<td>Administrative Role</td>
<td>47</td>
</tr>
<tr>
<td>School Level</td>
<td>48</td>
</tr>
<tr>
<td>School Location</td>
<td>48</td>
</tr>
<tr>
<td>School NCLB Designation</td>
<td>49</td>
</tr>
<tr>
<td>Summary</td>
<td>50</td>
</tr>
<tr>
<td>CHAPTER 3 Research Design and Methodology</td>
<td>52</td>
</tr>
<tr>
<td>Introduction</td>
<td>52</td>
</tr>
<tr>
<td>Chapter Overview</td>
<td>53</td>
</tr>
<tr>
<td>Research Design</td>
<td>53</td>
</tr>
<tr>
<td>Research Questions</td>
<td>55</td>
</tr>
<tr>
<td>Population</td>
<td>56</td>
</tr>
<tr>
<td>Sampling Frame</td>
<td>57</td>
</tr>
<tr>
<td>Sample Size</td>
<td>57</td>
</tr>
<tr>
<td>Instrumentation</td>
<td>58</td>
</tr>
<tr>
<td>Perceived Stress Scale</td>
<td>58</td>
</tr>
<tr>
<td>The Wellness Inventory of Lifestyle</td>
<td>60</td>
</tr>
<tr>
<td>Leadership Practices Inventory</td>
<td>61</td>
</tr>
</tbody>
</table>
Data Collection ............................................................................................................. 63
Operational Definition of Variables.............................................................................. 73
  Perceived stress. ........................................................................................................ 73
  Holistic wellness. ...................................................................................................... 73
  Leadership practices.............................................................................................. 74
  Gender...................................................................................................................... 74
  Administrative role. .............................................................................................. 74
  School level........................................................................................................... 74
  School location....................................................................................................... 74
  School NCLB designation. ..................................................................................... 74
Institutional Review Board .......................................................................................... 75
Data Analysis ................................................................................................................ 75
  Research Question #1 .......................................................................................... 74
  Research Question #2. ......................................................................................... 77
  Research Question #3. ......................................................................................... 81
CHAPTER 4 Results and Findings ................................................................................... 87
  Introduction........................................................................................................... 87
  Chapter Overview ............................................................................................... 88
  Description of the Samples .................................................................................. 88
  Data Analysis ....................................................................................................... 96
    Comparison of Groups...................................................................................... 102
  Summary of Findings............................................................................................. 112
CHAPTER 5 Discussion and Conclusions ................................................................. 113
Discussion .................................................................................................................. 114
Practical Implications ................................................................................................. 125
Limitations .................................................................................................................. 127
Recommendations for Further Study .......................................................................... 127
Conclusions ............................................................................................................... 130
REFERENCES ............................................................................................................. 132
APPENDIX A Permission to Use Instruments .......................................................... 159
APPENDIX B Pilot Survey ......................................................................................... 163
APPENDIX C Pilot Study ............................................................................................ 169
APPENDIX D Pilot Post-Survey Questions ............................................................... 174
APPENDIX E Institutional Review Board Exemption ............................................... 177
APPENDIX F Email to School District Superintendents ......................................... 184
APPENDIX G Web-based Survey .............................................................................. 187
APPENDIX H Survey Cover Sheets ........................................................................... 193
APPENDIX I Contact #1: Pre-Notice Letter ............................................................ 196
APPENDIX J Contact #2: Survey Link Letter #1 .................................................... 200
APPENDIX K Contact #3: Survey Link Letter #2 ................................................... 203
APPENDIX L Contact #4: Survey Link Letter #3 .................................................... 206
List of Tables

Table 1 Frequency and Percentages of Participants’ Gender ........................................... 89
Table 2 Frequency and Percentages of Participants’ Marital Status .................................. 89
Table 3 Frequency and Percentages of Participants’ Employment Status .......................... 90
Table 4 Frequency and Percentages of Participants’ Ethnicity .......................................... 90
Table 5 Frequency and Percentages of Participants’ Highest Degree Earned .................. 91
Table 6 Frequency and Percentages of Participants’ Role. Error! Bookmark not defined. 92
Table 7 Frequency and Percentages of School Level ....................................................... 92
Table 8 Frequency and Percentages of School Location .................................................. 93
Table 10 Descriptive Statistics of Participants’ Age ........................................................ 95
Table 11 Descriptive Statistics of Holistic Wellness Scores, PSS and Leadership Scores ........................................................................................................................................... 96
Table 12 Summary of Spearman’s Rank Correlations of Holistic Wellness Scores and Leadership Scores (N = 216) ............................................................................................ 97
Table 13 Summary of Spearman’s Rank Correlations between Perceived Stress and Holistic Wellness Scores (N = 216) .................................................................................. 98
Table 14 Summary of Spearman’s Rank Correlation Analysis of Perceived Stress and Leadership Scores (N = 216) ............................................................................................ 98
Table 15 Summary of Model Summary for Regression Analysis .................................... 99
Table 16 Summary of ANOVA for Regression Analysis ............................................... 100
Table 17 Coefficients of Independent Variables in Regression Analysis ....................... 100
Table 18 Independent Samples t-test between Gender Groups ........................................ 103
Table 19 Descriptive Statistics of Holistic Wellness, PSS and Leadership scores between Gender Groups ................................................................................................................ 104
Table 20 ANOVA Comparison of Means between Administrative Role Groups .......... 105
Table 21 Tukey Post Hoc Test between Administrative Role Groups ......................... 106
Table 22 Summary of ANOVA Comparison of Means between School Level Groups 107
Table 23 Summary of Tukey Post Hoc Test between School Level Groups ............... 108
Table 24 Summary of ANOVA for Comparison of Means between School Location Groups......................................................................................................................... 109
Table 25 Summary of Tukey Post Hoc Test between School Location Groups .......... 110
Table 26 ANOVA Comparison of Means between School NCLB Designation Groups 111
Table 27 Tukey Post Hoc Test between School NCLB Designation Groups .............. 111
CHAPTER 1

Introduction

The information age is now transitioning into the digital age. Tasks and days are being carved into bits and bytes. Expectations are increasing as budgets are decreasing, along with the funding necessary to retain support staff. The constant demands placed on minds and bodies are overwhelming and debilitating, but modern-day executives feel trapped in a relentless cycle that controls their lives (Groppel, 2000; Loehr, 1993, 1997; Loehr & Schwartz, 2001; 2003). A 1999 government report found that the number of hours worked increased eight percent in one generation to an average of 47 hours per week. United States’ workers put in more hours on the job than the labor force of any other industrialized nation; indeed, the international trend has been to move to work weeks of less than 40 hours (American Institute of Stress [AIS], 2007).

The societal trend toward longer working hours is further exacerbated in the school principalship. In 2004, the average work week for public, elementary school principals was 58.6 hours, while the average work week for public, secondary school principals was 60.8 hours (National Center for Education Statistics [NCES], 2004). Today’s principal works longer hours, is less appreciated, has greater accountability, and has little time to learn or think about how to manage competing demands and constituencies (Pierce, 2000). At the same time, the role is compounded by constantly having to meet the expectations of multiple stakeholders (Drake & Roe, 1999; Shahid et al., 2001; Foster, 2002). The demands of a position in which every problem is important mitigate the opportunity for constructive accomplishment (Connolly, 2007; O’Sullivan, 2004).
As the cry for educational reform has increased in volume over the past three decades, the roles of the principal have become more multifaceted, conflict-laden, and demanding (Cranston, 2007; Shen & Crawford, 2003; Dierksen, 2005). Although the principalship has always been a demanding, more than a traditional full-time job, committees and task forces formed to study educational reform efforts have concluded that principals must simply do more (DiPaola & Tschannen-Moran, 2003). While demands placed on principals have changed, the available resources have not significantly changed to meet those demands (Allen, Lutinski, & Schlanger; 2007; Institute for Educational Leadership [IEL], 2000; Price-Koschmick, 2002). Many principals are reporting that it is simply not possible to accomplish the expanded job description (Billot, 2003; DiPaola & Tschannen-Moran, 2003; Langer & Boris-Schacter, 2003; Rooney, 2007). They are seeing the role as more challenging and less desirable than the job is worth (Howley, Andrianaivo, & Perry, 2005; Lindle, 2004; Pounder & Crow, 2005; Pounder & Merrill, 2001). Stress, long hours, a longer work year, modest remuneration, and a highly charged political atmosphere are the leading factors propelling principals to retire in record numbers (Allen, Lutinski, & Schlanger, 2007; Bass; 2004; Okoroma & Robert-Okah, 2007; Tobin, 2005).

The high accountability demands of No Child Left Behind (NCLB) and Adequate Yearly Progress (AYP) have further exacerbated the stress felt by building principals (Cushing, Kerrins, & Johnstone, 2003; Dierksen, 2005; Queen, J. & P. Queen, 2005; Redfox, 2005). NCLB is silent on the role of principals in fostering school improvement, but many of its provisions have important implications for principals (Sunderman, Orfield, & Kim, 2006). With the threat of sanctions and forced removal from the school,
NCLB merely adds pressure to an already pressurized position (Cusick, 2003; Dierksen, 2005; Queen, J. & P. Queen, 2005; Redfox, 2005; Sunderman, Orfield, & Kim, 2006).

The personal price that principals pay is becoming increasingly unsustainable. Eighty-three percent of principals say that the enormous demands of their job have forced them to make serious compromises in terms of their family and personal life (Howard, 2002). Most capable principals are engaged in an ongoing struggle – and may leave the profession – because of the increased demands they face (Allen, Lutinski, & Schlanger, 2007; Johnson, 2005; Kennedy, 2000; Stutsman, 2007).

**Statement of the Problem**

The demands placed on principals have increased over time, but an appropriate administrative infrastructure has not been adapted to meet those demands (Allen, Lutinski, & Schlanger, 2007; Institute for Educational Leadership [IEL], 2000; Price-Koschmick, 2002). In a 1999 survey of Indiana principals, respondents reported job stress (58%) and long hours (53%) as the two most serious barriers to anyone considering the principalship as a career (Indiana Association of School Principals [IASP], 1999). In a 2003 survey of 4,237 principals and assistant principals in Virginia, respondents reported job stress (91%) and long hours (86%) as the primary barriers inhibiting potential candidates from pursuing the position (DiPaola & Tschannen-Moran, 2003). Increased job complexity, rising standards, and greater demands for accountability have led to increased numbers of administrative vacancies nationwide (Allen, Lutinski, & Schlanger, 2007; Bass; 2004; Tobin, 2005). Many principals are reporting that the expanded job responsibilities are simply not manageable (DiPaola & Tschannen-Moran, 2003; Langer & Boris-Schacter, 2003; Rooney, 2007). The business sector has addressed
wellness in relationship to productivity; however, within public educational leadership
the possible relationships among wellness, leadership, and stress are not being adequately
studied.

Purpose of the Study

The purpose of this study was to determine if relationships existed among the
perceived stress, holistic wellness, and leadership practices of K-12, public school,
building-level administrators. The different demographic groups were compared with
one another on the variables of perceived stress, holistic wellness, and leadership
practices variables. The study provided insights into the relationships of perceived stress,
holistic wellness, and leadership practices variables and contributed to the knowledge
base for possible future study. Specifically, the study addressed the research questions
discussed below.

Research Questions

The three research questions considered in this study are stated below along with
a very brief discussion of the analysis used to study each question.

R1: What are the relationships among holistic wellness, perceived stress, and
leadership practices for K-12, public school, building-level administrators?

To address this question, correlations were computed. The specific
variables considered were the five holistic wellness self-report scores
(Essential Self, Coping Self, Social Self, Creative Self, and Physical Self),
the perceived stress self-report scores, and the five leadership practices
(Modeling the Way, Inspiring a Shared Vision, Challenging the Process,
Enabling Others to Act, and Encouraging the Heart) self-report scores.
R2: To what extent can variance in perceived stress of K-12, public school, building-level administrators be accounted for by holistic wellness and leadership practices?

To address this question, multiple regression analyses were conducted with perceived stress as the dependent variable. The independent variables were holistic wellness self-report scores (Essential Self, Coping Self, Social Self, Creative Self, and Physical Self), Leadership Practices Inventory self-report scores (Modeling the Way, Inspiring a Shared Vision, Challenging the Process, Enabling Others to Act, and Encouraging the Heart) and appropriately coded demographic variables.

R3: What are the differences in group mean scores of holistic wellness, perceived stress, and leadership practices when respondents are grouped by the selected demographic variables (gender, administrative role, school level, school location, and school NCLB designation)?

To address this question, for each demographic variable, the responses were grouped and multivariate analyses of variance were conducted. Appropriate post hoc analyses were also conducted.

**Importance of the Study**

The hazards of school leadership that produce distress are a dominant theme in professional journals (Bailey, Fillos, & Kelly, 1987; Gmelch & Chan, 1995; Lam, 1984; Mertz, 1999; Torelli & Gmelch, 1993). Nevertheless, while educational leaders acknowledge stress as a persistent consequence of their professional work, scholarly attention to these phenomena has rarely surfaced in empirical journals in the field of
educational administration (Beatty, 2000; Fenwick, 2000; Yerkes & Guaglianone, 1998). When distress has become a topic for scholarly study in educational administration, it is often treated as a by-product of problems in role definition, role conflict, role overload, politics, or personality conflicts (Borg & Riding, 1993; Frick & Fraas, 1990; Murphy, 1994; Whitaker; 1995).

The perceived stress of school leadership has not been well studied (Beatty, 2000). Surveys have reported the quantity of experience but mask the intensity of job events that demand enormous emotional capital from school leaders (Lindle, 2004). The high demand for increased accountability and the growing responsibilities have translated into new sources of stress for administrators (Billot, 2003; Hall, 2007; Redfox, 2005). A school administrator’s work is filled with critical moments truncated by the next critical moment (Peterson 1999, 2001). Administrators’ days are notable for their fragmentation (Cranston, 2007). Many principals resemble butterflies on speed pills (Connolly, 2007). Given that splintering of experience, most principals are likely to find their emotional health in a continual state of flux. It should come as no surprise that the American Institute of Stress (2001) has revealed school administrator to be one of the ten most stressful jobs in the modern workplace.

**Research Design**

The nature of this study was a correlative research method. The study was quantitative, since relationships between perceived stress, holistic wellness, and leadership practices of K-12, public school, building-level administrators for selected demographic variables were examined. This means that numerical values were assigned to the variables in the study, such that a relationship was determined. Determining
whether there was a relationship between the perceived stress, holistic wellness, and leadership practices would indicate if a positive, negative or no association between the variables does exist.

A positive association between the perceived stress, holistic wellness, and leadership practices indicates that when one variable increased, the other variable increased as well. A negative association between the perceived stress, holistic wellness, and leadership practices indicates that when one variable increased, the other variable decreased. No association between the perceived stress, holistic wellness, and leadership practices indicates that the increase or decrease in one variable does not have an impact on the other variables.

Associations between the perceived stress, holistic wellness, and leadership practices variables were determined by using a correlational research design. The purpose of the correlational research design was to determine whether there was a linear relationship between two or more variables (Burns & Grove, 2005). A correlational research design is used when the variables being examined are continuous (interval or ratio) level variables (Cozby, 2007). The correlational research design was able to determine whether associations exist between the perceived stress, holistic wellness, and leadership practices variables.

**Limitations**

The most significant limitation to this study is the nature of participant selection. The true population is all of the K-12, public school, building-level administrators in one Western state. The population was estimated to be approximately 600 at the time of the study. Because the contact method for this study was via email, it was necessary to
acquire the email address of each person in the population. The names and email addresses of school administrators were considered public information; however, a master list of state administrators did not exist at the time of this study. Each school district was contacted for the email addresses of its building-level administrators. With one exception, every school district provided the requested email addresses. Fortunately, the district that did not provide the addresses agreed to have its Director of Interaction send out the recruitment e-mail to the target population. Once the master list was compiled and potential participants were contacted, it was the school administrators themselves who determined who responded. Those not interested in participating simply did not respond. Therefore, even though the population was pre-determined, the sample was gathered through a convenience sample of those in the population choosing to participate. Since the sampling frame consisted of a convenience sample of participants, the results may not be representative of the entire population. Therefore, the results may not be generalizable to the target population.

**Delimitations**

The parameters of this study delineate its generalizability. The participants were practicing K-12, public school, building-level administrators. The study population did not include higher education administrators, private school administrators, or district-level administrators. A wave analysis of responses was used to determine the extent to which the data collected was representative of the entire population of K-12, public school, building-level, and administrators in the selected state. A comparison of demographic variables determined the extent to which the study participants were
representative of the entire population of K-12, public school, building-level, and administrators in the United States.

Definitions

Administrative Role: the job title of each participant (principal, assistant principal, or academic dean).

Challenge the Process: involves searching for opportunities by seeking innovative ways to change, grow, and improve; and experimenting and taking risks by constantly generating small wins and learning from mistakes (Kouzes & Posner, 2003b, p.63).

Coping Self: a factor of one’s total wellness; composed of four components (Realistic Beliefs, Stress Management, Self-Worth, and Leisure) (Ivey, A., Ivey, M., Myers, & Sweeney, 2005, p. 52).

Creative Self: a factor of one’s total wellness; composed of five components (Thinking, Emotions, Control, Positive Humor, and Work) (Ivey, A., Ivey, M., Myers, & Sweeney, 2005, p. 55).

Enable Others to Act: involves fostering collaboration by promoting cooperative goals and building trust, and strengthening others by sharing power and discretion (Kouzes & Posner, 2003b, p.66).

Encourage the Heart: involves recognizing contributions by showing appreciation for individual excellence, and celebrating the values and the victories by creating a spirit of community (Kouzes & Posner, 2003b, p. 69).

Essential Self: a factor of one’s total wellness; composed of four components (Spirituality, Gender Identity, Cultural Identity, and Self-Care) (Ivey, A., Ivey, M., Myers, & Sweeney, 2005, p. 51).
Holistic Wellness: a way of life oriented toward optimal health and well-being, in which the body, mind, and spirit are integrated by the individual to live life more fully within the human and natural community (Myers, Sweeney, & Witmer, 2000, p. 252).

Inspire a Shared Vision: involves envisioning the future by imagining exciting and ennobling possibilities, and enlisting others in the dreams by appealing to shared aspirations (Kouzes & Posner, 2003b, p.61)

Leadership Practices: the five practices (Model the Way, Inspire a Shared Vision, Challenge the Process, Enable Others to Act, and Encourage the Heart) that exemplary leaders do to get extraordinary things accomplished in their organizations (Kouzes & Posner, 2003b, p.13).

Model the Way: involves finding one’s voice by clarifying one’s personal values and setting the example by aligning one’s personal actions with shared values (Kouzes & Posner, 2003b, p.58).

Perceived Stress: the degree to which situations in one’s life are appraised as stressful (Cohen, Kamarck, and Mermelstein, 1983, p. 385).

Physical Self: a factor of one’s total wellness; composed of two components (Nutrition and Exercise) (Ivey, A., Ivey, M., Myers, & Sweeney, 2005, p. 57).

School Level: the school grade level of each participant (elementary school, middle school, or high school).

School Location: general geographic location of the school of each participant (rural, suburban, or urban).
School NCLB Designation: the No Child Left Behind Adequate Yearly Progress designation of the school of each participant (Exemplary in Achievement, High Achieving, Adequate Achievement, Watch List, or Need of Improvement).

Social Self: a factor of one’s total wellness; composed of two components (Friendship and Love) (Ivey, A., Ivey, M., Myers, & Sweeney, 2005, p. 54).

Total Wellness: the total wellness of an individual; composed of five overlapping factors (Essential Self, Coping Self, Social Self, Creative Self, and Physical Self) (Ivey, A., Ivey, M., Myers, & Sweeney, 2005, p. 47).

Overview of the Study

This study is discussed and presented in five chapters. In Chapter 1, introductory research on the dilemma of stress and burn-out of school building administrators is presented along with the statement of the problem, the purpose of the study, research questions and hypotheses, limitations and delimitations of the study, and definitions of perceived stress, holistic wellness, and leadership practices. In Chapter 2, an overview of reform efforts in business and educational leadership is presented, followed by the history, models, and relevant literature of perceived stress, holistic wellness, and leadership practices. The chapter concludes with a presentation of literature pertaining to the demographic variables of gender, administrative role, school level, school location, and school NCLB designation. In Chapter 3, the population, sample, design, instrumentation, data gathering model and procedures, IRB procedures, and data analyses used are presented. In Chapter 4, the results of the study are presented. In Chapter 5, the results are discussed and implications for further research are considered.
CHAPTER 2

Literature Review

Introduction

Even though the increased expectations of students affect everyone involved in education, the ultimate responsibility for school performance has rested with the building principal (Sunderman, Orfield, & Kim, 2006). As the pressure to perform at ever-increasing levels continues to mount, many administrators have questioned whether the personal sacrifices are worth it (Allen Lutinski, & Schlanger, 2007; Dierkson, 2005; Lindle, 2004; Pounder & Merrill, 2001; Stutsman, 2007). Fortunately, many school district superintendents now understand that the principalship – as it is currently defined – is no longer doable (Billot, 2003; Eckman, 2004). These same superintendents have sponsored reform efforts to redefine the role of the principal and streamline the practice of the principalship (Cranston, 2007; Eckman, 2006; Metzger, 2003). These superintendents have recognized that without proactive, outside-the-box thinking, the shrinking administrative candidate pool will go dry (Cushing, Kerrins, & Johnstone, 2004; Institute for Educational Leadership, 2000; Pounder & Crow, 2005).

Chapter Overview

The purpose of this chapter was to review leadership reform efforts in both business and education. The review chronicles how business leadership has transitioned from a time management paradigm to an activity management paradigm to an energy management paradigm in the last century. The review also documents how educational leadership fully implemented the first reform (time management), has partially implemented the second reform (activity management), and has not yet implemented the
third reform (energy management). This chapter also contains an in-depth analysis of wellness, stress, and leadership concepts. The history, preferred models, and relevant literature of each are presented. Finally, documentation is presented to illustrate how the demographic variables of gender, administrative role, school level, school location, and school NCLB designation interact with the wellness, stress, and leadership variables.

**Reform Efforts**

Reform is not new to educational administration, but it has generally followed reform in the business sector (Rousmaniere, 2007). After witnessing the successes of private enterprise, the more progressive school districts have taken the initiative to institute administrative reform efforts. Following the successes of the adventurous few, other school districts have begun to follow their lead. But regardless of their placement on the reform continuum, school district administrators have increasingly come to acknowledge that business as usual is no longer an option (Cushing, Kerrins, & Johnstone, 2003; Pounder & Crow, 2005).

**Time Management Paradigm**

Efficiency drove reform efforts during the industrial age and the factory system that developed in America was second to none. The tremendous success of the United States’ factory model (scientific management) propelled America to the economic forefront of the Western World (Rousmaniere, 2007). Frederick W. Taylor became world-renowned for his ability to streamline production processes (Spring, 1997). In conjunction with streamlining processes, time management was seen as the key to maximizing potential.
When schooling became mandatory in the early twentieth century, educational institutions succumbed to public pressure and adopted the same scientific model of management that was driving the business community (Callahan, 1962). School administrators had to abandon the scholarly role of educational philosopher and curriculum leader for the new role of a businessperson. Based on the teachings of time-and-motion-study pioneer, Frederick W. Taylor, the principles of hierarchical management and cost-effectiveness became the focus for the professionalization of public school administration (Spring, 1997). Across the country, school administrators applied themselves to their redesigned roles by trying to establish uniform procedures and lines of control. Standardization and efficiency became the new goals (Rousmaniere, 2007). Administrators became preoccupied with standardizing forms for student and teacher evaluations, attendance and personnel records, and employment procedures (Pulliam, 1991). Cost-effectiveness also became an important part of this process as administrators worried about classroom costs, supply orders, insurance purchases, building maintenance, and office management (Rousmaniere, 2007). For many school districts, economics overshadowed student learning (Rousmaniere, 2007; Spring, 1997). Even today, many building and district level administrators perceive themselves more as chief executive officers than instructional leaders (Business Coalition for Educational Reform [BCER], 2000; Neil, Carlisle, Knipe, & McEwen, 2001).

As the industrial age gave way to the information age, business leaders began to see the limitations of traditional time management thinking. Stephen Covey (1989) drew attention to this line of thought with First Things First, which began as habit number three of his seminal work, *The Seven Habits of Highly Effective People*. He later
expanded this activity management concept into a book he co-authored with Roger and Rebecca Merrill entitled *First Things First* (1994). Covey’s basic contention was that people spend so much time focused on climbing the ladder of success that they neglect to take the time to stop and consider whether the ladder was leaning against the right wall. Even when their goals were well-thought-out, they seldom considered whether their actions in that endeavor were relevant to the task at hand. Covey urged leaders to prioritize their daily activities according to their value systems, and then schedule those things that were most important to them before filling-in the empty spaces in their day-planners with less important obligations. The more proactive a person was in dealing with important matters, the less time that person was obligated to spend on urgent – but less important – matters.

Some of the more progressive school districts have championed the activity management model for school leaders. Glendora Unified School District has provided the encouragement and monetary support for its principals to work with mentors from The Breakthrough Coach, a management coaching firm. After collecting and analyzing data on how they spent their time, the principals were coached in how to delegate and assign responsibility for many technical aspects of their jobs to their staffs. The delegation and redefinition of goals resulted in increased administrator time in classrooms, fewer discipline referrals, higher Academic Performance Index (API) scores, and increased family time for the principals (Cushing, Kerrins, & Johnstone, 2004).

Hanford Elementary School District used another model that emphasized the rethinking of the principals’ job responsibilities. With the help of the New Standards Project and using *Reframing Organizations* by Bolman and Deal (2003) and *Schools that*
Work by Senge et al. (2000) as resources, the role of the principalship was completely redefined. Principals spent more time in classrooms and most of the managerial duties were delegated to classified staff. The increased administrator time in classrooms resulted in improved teaching effectiveness and the greater principal visibility resulted in fewer discipline concerns (Cushing, Kerrins, & Johnstone, 2004).

A third model gaining popularity, involved hiring two people (co-principals) to do the job previously held by one person. This model took several forms: one entailed dividing-up grade levels (e.g., K-3 and 4-6); one entailed dividing-up functions (e.g., curriculum/instruction and discipline/management); one entailed dividing-up job responsibilities based on individual strengths and experiences, and another entailed two people performing all aspects of the job together. In these cases, the principals reported feeling less isolated and less stressed than in their previous solo principalships (Cushing, Kerrins, & Johnstone, 2004; Eckman, 2006).

In a 2006 qualitative study, Eckman identified 170 individuals serving as co-principals in schools across the United States. In 90% of those schools, two individuals both served as principal. They each received a full principal’s salary and had their own offices and secretarial support. In the other 10% of the schools, a part-time or job-sharing model was utilized, where two individuals shared the position by working on different days of the week. Study participants viewed the co-principalship model as a way to face the complex and demanding task of raising student academic achievement while managing a school’s day to day operations. For them, it offered an alternative for leading schools that benefited the individual principal, parents, teachers, and students.
Energy Management Paradigm

The information age is now transitioning into the digital age. Tasks and days have been carved into bits and bytes. Expectations are increasing as budgets have decreased, along with the funding necessary to retain support staff. People have responded by working more hours, ignoring personal needs, fueling-up with coffee, wolfing-down fast food, cooling-down with alcohol, and surviving on too little sleep. The constant demands placed on minds and bodies are overwhelming and debilitating, but modern-day executives feel trapped in a relentless cycle that controls their lives (Groppel, 2000; Loehr, 1997; Loehr & Schwartz, 2001; 2003). A 1999 government report found that the number of hours worked increased eight percent in one generation to an average of 47 hours per week. United States’ workers put in more hours on the job than the labor force of any other industrialized nation when the international trend has been just the opposite (American Institute of Stress [AIS], 2007).

Through executive coaches and organizations, such as LGE Performance Systems, executives are now being reinvigorated by holistic wellness training programs (Groppel, 2000; Loehr, 1997; Loehr & Schwartz, 2001; 2003). LGE Performance Systems helps their clients maximize personal energy through the practice of rituals designed to enhance personal holistic wellness. According to Loehr and Schwartz (2001, 2003), energy is the fundamental currency of high performance.

The energy management approach builds upon the time management and activity management paradigms. People should manage their time and strive for efficiency in completing management tasks. They should empower those around them and delegate managerial duties as much as possible. But the real challenge occurs when people have
streamlined their schedules and delegated their responsibilities as much as their budgets will allow. Performance psychologist James Loehr (1993, 1997) and physiologist Jack Groppel (2000) have stated that by attending to their personal wellness, people can increase their energy capacity (ability to expend and recover energy) and, therefore, their effectiveness in dealing with the seemingly overwhelming workload that they are unable to delegate or dismiss. Every thought, feeling, and action has an energy consequence. Full engagement is then seen as a consequence of the skillful management of energy in all dimensions of wellness (Loehr & Schwartz, 2001; 2003).

By focusing on the improvement of their weakest dimensions of wellness, people are able to bring their bodies more into balance (homeostasis). When they are more balanced, they can summon more energy at any given time to address life’s challenges. While they may not always be able to reduce the number or magnitude of the challenges they face, people can maximize the energy they bring to those challenges and, therefore, reduce the negative effects of stress and enhance the effectiveness of their personal and professional lives (Groppel, 2000; Loehr, 1997; Loehr & Schwartz, 2001; 2003).

Even though the same corporations have realized the value of employing performance psychology and attending to personal wellness (Power, 2006; Singh, 2001), the education community has been slow to pick up the gauntlet. Isolated pockets of schools and districts have been utilizing consultants to coach their school leaders in time and activity management skills (Cushing, Kerrins, & Johnstone, 2004; Reese, 2006; Rooney, 2007), but to date, education consulting firms adhering to the holistic wellness model are not in existence.
Emotional States

Fight or flight

Early in the 20th century, American physiologist Walter Cannon conducted a series of experiments that provided physical proof that glands in the body respond to stress. His early experiments demonstrated the relationship between the hypothalamus, pituitary, and adrenal glands and stress (Maranto, 1984). In the 1930s, Austrian-born physician Hans Selye conducted sophisticated experiments and described what is known as the fight-or-flight response to stress (Sapolsky, 2004).

In the mid 1960s, researchers began studying the immune system in earnest. The immune defense system proved to be so complex that researchers were overwhelmed with the task of unraveling its parts and functions. We now know that no body system, including the complex immune system, works entirely on its own and independently of the other body systems. All body systems’ functions are coordinated by the brain (Wechsler, 1987).

In the 1980s, immunologists started examining the anatomical links between the brain, the nervous system, and the immune system. They determined that the major body systems (the brain, the nervous system, and the immune system) operate interdependently. Scientists now know that the brain communicates with the cells of the immune and nervous systems and that strong emotional response depress the functioning of all systems (Karren, Hafen, Smith, & Frandsen, 2002).

The fight-or-flight response to life’s challenges was invaluable to early ancestors, but our culture has evolved much more rapidly than our bodies. We are now a civilized society that is expected to deal calmly and rationally with each other. We no longer need
to fight saber-toothed tigers or flee from wolves, but our bodies still respond to life’s
difficulties as if we do. Different emotional states can trigger the *fight-or-flight* response;
among those are fear, anger, and stress. The succeeding sections contain brief outlines of
how each is manifested and what its consequences are to the body (Karren et al., 2002).

**Fear.**

Fear is normally triggered by an undesirable and unpredictable phenomenon. Our
early ancestors needed this emotion to escape life-threatening situations. That is not to
say that the modern world is free of danger, but most people do not literally fear for their
lives on a daily basis (Wallis, 1983). Fear gives an extra burst of energy needed to flee
danger by flooding the system with epinephrine, thereby increasing the heart rate, blood
pressure, and respiration. In addition to epinephrine, other hormones are also released by
fear, but the good news is that hormone production and the resulting negative effects on
body systems (shortness of breath, palpations, chest pain, dizziness, choking, abdominal
distress, numbness, tingling, weakness, sweats, hot flashes, chills, tremors, and/or shakes)
are limited to the duration of the fearful state, which is normally quite brief unless one
has an intense phobia (Karren et al., 2002). It does not matter whether the fear is real; the
same messages are sent from the brain to the body regardless of whether the fear is
perfectly understandable or illogical. If the fear is intense enough, all systems can fatally
overload and the victim can literally be scared to death (Dolnick, 1989).

**Anger.**

Anger is normally manifested as an intense response to an undesirable
phenomenon. Our early ancestors needed anger to survive. Anger enabled them to fight
with vigor and great strength. In rare cases, anger can be useful to people (i.e., self-
defense or defense of a loved one), but, in most instances, it causes more harm than good (Izard, 1977). The basic physiological effects of anger are very similar to those of fear, but there are a host of others as well (muscle tensing; scowling; teeth grinding; glaring; fist clenching; flushing; getting goosebumps, chills, or shudders; experiencing prickly sensations or numbness; choking; twitching; sweating; losing self-control; or feeling hot or cold) (Weiss, 1984).

As with fear, the harmful effects of anger are limited to the duration of the anger, but hostility is altogether different. Hostility is essentially a continuous state where anger is always close to the surface and the hormones that compromise the body systems are continually produced. So, unlike momentary fear or anger, hostility significantly impacts a person’s health over time (Roskies, 1987; Ubell, 1990).

**Stress.**

There are many popular definitions of stress, but it is essentially any challenge to homeostasis. Like fear and anger, it is not the challenge itself that moves one away from homeostasis; it is one’s response to that challenge. A positive response results in eustress (good stress), which sharpens the senses and promotes personal growth. A negative response results in distress (bad stress), which triggers the *fight-or-flight* response described above. Temporary stress, like fear and anger, has proven to have a minimal impact on health, but chronic stress, like a phobia or hostility, has been shown to have a long-term detrimental effect on health and well-being (Padus, 1990).

Early research on both physical and psychological stress typically employed relatively objective stress measures. This work included studies of the effects of specific stressful events, such as unemployment (Cobb & Kasl, 1977; Dooley & Catalano, 1980;
Gore, 1978), bereavement (Stroebe et al., 1982), exposure to intense levels of noise (Cohen & Weinstein, 1981), and high levels of population density (Sundstrom, 1978). In addition, there is abundant literature on the cumulative effect of objective stressful life events (Dohrenwend & Dohrenwend, 1974; 1981). In these studies, various versions of life event scales were used to produce cumulative stress scores. These scores were based on either the number of events that occurred within the specified timeframe (usually six to twelve months) or on a sum of event weights.

Successive research has countered the notion that life events are, in and of themselves, the precipitating cause of physical and psychological stress. Studies conducted by Lazarus (1966; 1977) have suggested that persons actively interact with their environments, appraising potentially threatening or challenging events in the light of available coping resources. From this perspective, stress is only manifested when both (a) the situation is appraised as threatening and otherwise demanding and (b) insufficient resources are available to cope with the situation. An important part of this view is that the stress response was not based solely on the intensity or inherent quality of the event; it was dependent upon the contextual factors and personal coping mechanisms as well (Cohen & Williamson, 1988).

**Perceived stress.**

In order to understand perceived stress, Cohen, Kamarck, and Mermelstein (1983) developed an instrument to measure a global level of perceived stress. The Perceived Stress Scale (PSS) is a psychological instrument used for measuring the perception of stress (Cohen, 1994). It measures the degree to which situations in one’s life are appraised as stressful. Items were designed to measure how unpredictable,
uncontrollable, and overloaded respondents find their lives. The PSS also includes a number of direct queries about current levels of experienced stress. The PSS was designed for community samples with at least a ninth grade education. The items are easy to understand, and the response alternatives are simple to grasp. Moreover, the questions are of a general nature and hence are relatively free of content specific to any subpopulation group. The questions in the PSS ask about feelings and thoughts during the last month. In each case, respondents are asked how often they felt a certain way.

Researchers at the American Institute of Stress have estimated that stress-related disorders contribute to 75 to 90% of all visits to health care providers and have been costing industry over $150 billion a year in absenteeism, medical expenses and lost productivity (Karren et al., 2002; Perkins, 1994). Just among the nation’s executives, an estimated $10 to $20 billion has been lost each year through absence, hospitalization, and early death, much of it as a result of stress (Kiev, 1987; Murphy & Sauter, 2003; Roohafza et. al, 2007). The four best-selling drugs in America have been ulcer medications, hypertension drugs, tranquilizers, and antidepressants (Wallis, 1983).

The hazards of school leadership that produce distress have been a dominant theme in the popular literature and professional journals (Bailey, Fillos, & Kelly, 1987; Gmelch & Chan, 1995; Lam, 1984; Mertz, 1999; Torelli & Gmelch, 1993). Nevertheless, while educational leaders acknowledge distress as a persistent consequence of their professional work, scholarly attention to these phenomena has rarely surfaced in empirical journals in the field of educational administration (Beatty, 2000; Fenwick, 2000; Yerkes & Guaglianone, 1998). When distress has become a topic for scholarly study in educational administration, it was often treated as a by-product of problems in
role definition, role conflict, role overload, politics, or personality conflicts (Borg & Riding; 1993; Frick & Fraas, 1990; Murphy, 1994; Whitaker; 1995).

The emotional toll of school leadership has not been well studied (Beatty, 2000). Surveys have reported the quantity of experience but mask the intensity of job events that demand enormous, emotional capital from school leaders (Lindle, 2004). The high demand for increased accountability and the growing responsibilities have translated into new sources of stress for administrators (Billot, 2003; Hall, 2007; Redfox, 2005). A school administrator’s work is filled with critical moments truncated by the next critical moment (Peterson, 1999; 2001). Administrators’ days are notable for their fragmentation (Cranston, 2007). Many principals resemble butterflies on speed pills (Connolly, 2007). Given that splintering of experience, most principals are likely to find their emotional health in a continual state of flux. It should come as no surprise that the American Institute of Stress (2001) has revealed school administrator to be one of the ten most stressful jobs in the modern workplace.

As the profession seeks to improve school leadership, those involved in administration preparation programs must acknowledge the emotional dimensions of the principalship (Holloway, 2004; Lindle, 2004), and very few districts provide any professional development or programs to help principals deal with stress as it relates to the job of being a principal (Strike, 2004). The Association of California School Administrators [ACSA] (2000) recommends that school leaders keep their stress at bay in order to perform their jobs and to communicate their needs. If administrators are unable to cope effectively with the stresses of their jobs, the result will continue to be a leadership shortage (Adams, 1999; Metzger, 2003). Moreover, if stressed-out
administrators stay in their positions, they may become embittered, fatigued, suffer burnout, and experience severe personal consequences affecting their physical, mental, and emotional health (Metzger, 2003; Sorenson, 2007; Whitaker, 1995).

Price-Koschnick (2002) found that the high demand for increased accountability and the growing responsibilities have translated into new sources of stress for administrators. Price-Koschnick also found that two significant correlations existed with the Controller and Creator leadership styles and stress. Principals who scored themselves as possessing the Controller leadership style demonstrated a positive relationship in both task-oriented and relationship-oriented stress (Price-Koschnick, 2002). In addition, Price-Koschnick (2002) found an inverse relationship with both task-oriented and relationship-oriented stress for principals who rated themselves as possessing the Creator leadership style.

Strike (2004) provided one example of stress as it relates to school effectiveness in his study of 119 Texas 5A high school principals. The principals self-rated themselves on Kouzes and Posner’s Leadership Practices Inventory and completed a 20 question researcher-designed stressor survey. Participants were compared and contrasted based on the Texas Education Agency’s campus’ ratings: Exemplary, Recognized, Acceptable, Low. Results indicated that those principals who had campuses rated as exemplary by the Texas Education Agency reported less stress than did those in the lower ratings. In addition, Strike found those principals who had campuses rated as recognized reported less stress than those with acceptable ratings, and those rated as acceptable reported less stress than those with low ratings.
Wellness

**Historical interpretation.**

Wellness can be characterized as moving through three paradigms: dichotomous, multidimensional, and holistic (Neuman, 1995). With the dichotomous paradigm, wellness represented an either/or proposition; there is either disease or the absence of disease. In the multi-dimensional paradigm, wellness is represented as a continuum between disease on one end and wellness on the other. Finally, the holistic paradigm represented wellness as a continuous process that is interrelated with the environment. The holistic perspective is a dynamic, relational view of wellness, in that the well individual is in the process of living or “becoming” (Buck, 1996, p. 12).

Historically, the dominant model in medicine, the biomedical model, characterized wellness as dichotomous. With the biomedical model, wellness was described as either the presence or absence of disease. From the biomedical perspective, the emphasis has been on illness and the consideration of the body in terms of its isolated physiological symptoms (McSherry & Draper, 1998). Further, assessment and diagnosis was directed at detecting illness and its consequences (e.g., pathology and disability) (Larson, 1999). The assumptions of the dichotomous perspective were challenged by changes in society and science and an alternative explanation of wellness evolved. Specifically, technological advances in medicine and society after WWII changed the health needs in the United States, and there was a corresponding need to expand the definition of health beyond merely the absence of disease. With the introduction of vaccines and antibiotics, infectious disease no longer qualified as the leading cause of
death. Instead, chronic and lifestyle illnesses (e.g., heart disease, cancer) associated with the stress phenomenon became the primary factor in deaths (Seaward, 2004).

With advances in medicine and technology, there was an opportunity for increased attention to wellness promotion and positive wellness. This marked the beginning of the multidimensional wellness movement. The multidimensional perspective of wellness acknowledged the influence of factors beyond the physiological ones in the determination of health status. For example, mental and social factors were given serious consideration in a person’s overall well-being. The notion of wellness was expanded from a dichotomous variable (disease or absence of disease) to a continuum ranging from wellness on one end of the spectrum to illness on the other. In the shift toward a focus on positive wellness, the definition of wellness was changed from one that was considered to be objective and emphasized disease, toward one that was more subjective with an emphasis on quality of life (Seaward, 2004).

The second change in the definition of wellness occurred when spirituality was included as a dimension in addition to the physiological (body) and psychological (mind) dimensions of wellness. The inclusion of spirituality as a dimension of wellness expanded the definition of wellness to be more relational in that it introduced the idea that all dimensions (body, mind, spirit) of the individual are interconnected. According to Myers, Luecht and Sweeney (2000), spirituality was seen as “an awareness of a being of force that transcends the material aspects of life and gives a deep sense of wholeness or connectedness to the universe” (p. 252). The inclusion of spirituality lead to a consideration of the person as whole rather than viewing the dimensions of wellness as fragmented. Gross (1980) explained that holistic health proposes that one is “whole in
the sense that a living entity is more than the sum of its parts” (p. 96). From a holistic perspective, spirituality was considered the core of wellness and interconnected with all other dimensions of well-being (Chandler, Kolander, & Holden, 1992; Witmer & Sweeney, 1992). The holistic perspective shifted the definition of wellness from an elementalist, reductionsist, and dichotomous perspective to one that is interdependent and relational. Although the biomedical model of health continues to dominate research and practice in the United States, the holistic model is considered a more comprehensive perspective of health (Larson, 1999).

Research in the business sector reveals that executives who attend to their holistic wellness have more energy, experience less stress, and are more effective in the workplace (Groppel, 2000; Loehr, 1997; Loehr & Schwartz, 2001; 2003; Power; 2006). Little research has been conducted with school administration and wellness and the few studies that have been conducted have merely focused on the physical (Eickholt, 1994; Koonce, 1986) or the spiritual (Stokley, 2002; Wheatley, 2002) dimension of wellness. Only one study has attempted to address all dimensions of wellness (Metzger, 2003).

Models of Wellness

The original model of holistic wellness, often referred to as the balanced integration of mind, body, and spirit, was first conceptualized by Greek philosopher Aristotle over 2000 years ago (Warner, 1984). Bringing this theme into the modern age, Dunn (1961), acknowledged by many to be the founder of holistic wellness, considered “the human body as a manifestation of organized energy . . . [with] body, mind, and spirit of man as an interrelated and interdependent whole . . . [in which the individual] strives to achieve his purpose in living and grows in wholeness toward the maturity of self-
fulfillment” (p. vi). The World Health Organization posed a slightly different three-dimensional model (physical, mental, and social well-being) of holistic wellness in 1958.


After initially developing a five-dimensional model of wellness (1977), and then revising that five-dimensional model (1986), Ardell (1988) expanded his model to eight dimensions of wellness (Psychological, Spiritual, Physical Fitness, Job Satisfaction, Relationships, Family Life, Leisure Time, and Stress Management). Although the literature has disagreed on the absolute number of wellness dimensions, there is universal agreement that there exists a dynamic relationship between the different dimensions; changes in any one affect all other dimensions of wellness (Ardell, 1988; Hettler, 1984; Hinds, 1983).

Witmer and Sweeney (1992) developed a Wheel of Wellness model based on the theoretical life tasks identified by Adler (1954) and Dreikurs (1967) that people must address (i.e., work, friendship, love, self, and spirit). The model combined research results; theoretical perspectives from personality, social, clinical, health, and
developmental psychology; and stress management, behavioral medicine, psychoneuroimmunology, ecology, and contextualism (Ivey et al., 2005). Although early research on the circumplex model was promising, more recent data analyses did not fully support the wellness model (Myers, Luecht, & Sweeney, 2003; Myers & Sweeney, 2004b). An updated wellness model, seen in Figure 1, is supported by empirical research based on the Wheel of Wellness model.

While the earlier Wheel of Wellness model hypothesized a hierarchical, circumplex construct (Witmer & Sweeney, 1998), subsequent data analyses have revealed one overarching factor (wellness) with five components (Myers & Sweeney, 2002; Myers & Sweeney, 2003). No one component is considered more important than the other components of the model. This new model is appropriately named the Indivisible Self.

**Indivisible Self.**

Central to the idea of the Indivisible Self is the conviction that positive change in one area of one’s being can have positive benefits in other areas as well. These factors central to well-being are conceptualized within the construct of self: Essential Self; Coping Self; Social Self; Creative Self; and Physical Self. Within the five factors are 17 components; research findings across disciplines suggest that each of the 17 contributes to both longevity and quality of life (Myers et al., 2000; Myers & Sweeney, 2004).

**Essential Self.**

There are four components to Essential Self: spirituality, gender identity, cultural identity, and self-care. Spirituality is defined as “an awareness of a being or force that transcends the material aspects of life and gives a deep sense of wholeness or
connectedness to the universe” (Ivey et al., 2005, p. 51). Spirituality is associated with hope, optimism, seeking meaning and purpose in life, and practices that express these through prayer, meditation, and worship. A distinction is made between spirituality, a broad concept representing personal beliefs and values, and religiosity, a more specific concept that refers to institutional beliefs and behaviors. In addition, there is a significant, positive relationship between spirituality (of which religion is only a part), mental health, physical health, life satisfaction, and wellness (Ivey et al., 2005; Myers & Sweeney, 2004).

Gender identity refers to subjective feelings of maleness or femaleness and is culturally constructed or defined. Gender role socialization, a process that begins at birth and continues throughout the lifespan, results in the reinforcement of culturally appropriate gender role behaviors for both males and females (Ivey et al., 2005). Feelings of satisfaction with one’s gender, feeling supported in relationships with persons of both genders, and being competent to respond appropriately to gender-related stressors in life are characteristics of those who have a positive gender identity (Ivey et al., 2005; Myers & Sweeney, 2004).

Cultural identity is defined as a “multidimensional concept that encompasses the collective reality of a group of people” (Lee & Richardson, 1997, p. 11). It is a concept that incorporates racial identity, acculturation, and an appreciation for the unique aspects of one’s culture. Feelings of satisfaction with one’s cultural heritage, feeling supported and valued in relationships with persons of one’s own and other cultures, and being competent to respond appropriately to culture-related stressors in life were characteristics of those who had a positive cultural identity (Ivey et al., 2005; Myers & Sweeney, 2004).
Self-care relates to concern and attention to one’s well-being in all of its dimensions. Choosing to develop safety habits, including practicing preventative medical and dental care, wearing seat belts, and avoiding harmful substances including those in the environment has improved quality of life and extended longevity. The practice of safety habits may be interpreted as behavioral evidence of an existential desire for living (Ivey et al., 2005; Myers & Sweeney, 2004).

**Coping Self.**

There are four components to Coping Self: realistic beliefs, stress management, self-worth, and leisure. Irrational beliefs have been the source of frustration and disappointment with life for many individuals. Even those who believe that they need to be people pleasers can cope successfully with life’s requirements if they learn to manage the inevitable stress that they will experience. Likewise, self-worth can be enhanced through effective coping with life’s challenges (Branden, 1994). As self-efficacy is experienced through successful experiences, self-worth increases as well. Finally, leisure is essential to improve wellness and to achieve continual development. Learning to become totally absorbed in an activity that makes time stand still helps one not only cope but transcend the more difficult requirements of life. The coping Self, then, encompassed elements that regulate the responses to life events and provided a means for transcending their negative effects (Ivey et al., 2005; Myers & Sweeney, 2004).

People who have realistic beliefs are able to accept themselves as imperfect and to challenge irrational thoughts about “always, never, or should” in relation to themselves, others, and life circumstances. Healthy people have been able to process information accurately and perceive reality as it is rather than as they wish it to be. They actively
entertain thoughts that help them avoid conflict with others, find solutions to life’s inevitable vexations, protect them from harm, achieve worthwhile personal goals, and maintain a positive emotional balance (Ivey et al., 2005; Myers & Sweeney, 2004).

Effective managers of stress have had the capacity to experience change as a positive, regulate time and energy to maintain balance, set realistic limits, self-monitor effectively, and be proactive in responding to life’s events. Stress has affected both psychological and physiological functioning and has a specific depressant effect on immune system functioning. People who have been stress resistant experience more positive and beneficial immune system responses, greater resistance to psychosocial stressors, a greater internal locus of control, more positive mental health, and greater physical health (Ivey et al., 2005; Myers & Sweeney, 2004).

Self-worth is variously referred to in the literature as self-concept, self-esteem, and self-worth. Its essence, however, may be summed up simply as acceptance of oneself both in gifts and imperfections. A high degree of self-worth results in the belief that one is unique, worthwhile, and deserving of all of life’s benefits – while remaining confident when dealing with its disappointments. Faulty self-evaluation may be seen in behaviors that reveal a mindset devoted to excuses, blaming, complaining, and fears designed to avoid meeting life’s most basic tasks (Ivey et al., 2005; Myers & Sweeney, 2004).

Leisure activities, including physical, social, intellectual, volunteer, and creative, have had a positive effect on self-worth and overall wellness. Life satisfaction also is influenced by leisure congruence, defined as the selection of leisure activities consistent with one’s personality type. This may be best represented by activities through which
one loses track of time, feeling totally immersed in an activity that brings out one’s innate creativity, talents, and personal passions for beauty, life, and creation (Ivey et al., 2005; Myers & Sweeney, 2004).

**Social Self.**

There are two components to Social Self: friendship and love. Friendship and love can be conceptualized as existing on a continuum and, as a consequence, not clearly distinguishable in practice. What is clear is that friendships and intimate relationships do enhance the quality and length of one’s life. Isolation, alienation, and separation from others generally are associated with all manner of poor health conditions and greater susceptibility to premature death, whereas social support has remained in multiple studies as the strongest identified predictor of positive mental health over the lifespan (Ivey et al., 2005; Myers & Sweeney, 2004).

The motivation for friendship is reflected in the need for frequent, positive interactions with the same persons, and the search for a long-term, stable and caring support network. There is a strong positive connection between friendship quality and sense of well-being, including physical as well as mental health. This has included connectedness with others in nonsexual relationships, having a social support system in times of need or celebration, being able to give support to others, feeling comfortable with others and – possibly most important – not feeling lonely, alienated, or neglected (Ivey et al., 2005; Myers & Sweeney, 2004).

Characteristics of healthy love relationships include the ability to be intimate, trusting, and self-disclosing with another person and the ability to receive as well as express affection with significant others. The life task of love also necessitates having a
family or family-like support system that has the following nine characteristics: shared coping and problem-solving skills, commitment to the family, good and frequent communication, encouragement of individuals, regular expression of appreciation, shared religious/spiritual values, social connectedness, clear roles, and shared interests, values, and significant time together (Ivey et al., 2005; Myers & Sweeney, 2004).

**Creative Self.**

The concept of creative self pertains to how each of us uniquely addresses being alive and sustaining life (Myers & Sweeney, 2004). Adler (1954) spoke of the creative self as the combination of attributes that each of us forms to make a unique place among others in our social circumstances. There are five components to this factor: thinking, emotions, control, positive humor, and work (Ivey et al., 2005; Myers & Sweeney, 2004).

Active thinking, including analytical and creative activity, is necessary for healthy brain functioning and quality of life. Effective problem solving has been correlated with lower anxiety and depression, and greater overall psychological adjustment. Creativity has been identified as a universal characteristic of self-actualizing people, all of whom demonstrate originality, a special kind of creativeness, inventiveness, and problem-solving ability (Ivey et al., 2005; Myers & Sweeney, 2004).

Individuals who allow their feelings and behaviors to be spontaneous have been able to experience a range of both positive and negative emotions in a way that is conducive to positive human relations. Such emotions include anger, anxiety (fear), sadness, guilt, shame, disgust, interest/excitement, love/compassion, and happiness/joy. The appropriate expression of these emotions reflects the wisdom of life (Ivey et al., 2005; Myers & Sweeney, 2004).
Perceived control has been associated with emotional well-being, successful coping with stress, better physical health, and better mental health. Authors have indicated that people experience positive outcomes when they perceive themselves as having an impact on what happens to them and negative outcomes when they perceive a lack of personal control (Ivey et al., 2005; Myers & Sweeney, 2004).

Positive humor includes both recognition and appreciation of humorous events and creation of humorous situations. Positive humor releases tension so that new insights may be gained, intimacy can be enhanced, and cohesiveness and trust can be established. Especially when accompanied by laughter, humor causes the skeletal muscles to relax, boosts the immune system, increases heart rate, stimulates circulation, oxygenates the blood, massages the vital organs, aids digestion, and releases endorphins into the brain, thereby enhancing a sense of well-being (Ivey et al., 2005; Myers & Sweeney, 2004).

Work satisfaction, comprised of challenge, financial reward, co-worker relations, and working conditions, has been one of the best predictors of longevity, as well as perceived quality of life. This involves feeling that one’s skills are used appropriately, experiencing satisfaction and some degree of influence with both the process and the product, feeling that time and resources are available to achieve what is expected, feeling valued by others in the effort, and feeling secure with one’s place as a contributing participant. Finally, work satisfaction has included the feeling that one is benefiting by receiving pay or recognition to an extent at least equal to the task assigned or attempted (Ivey et al., 2005; Myers & Sweeney, 2004).
Physical Self.

Physical Self is composed of two components: nutrition and exercise. The research evidence is compelling with regard to the importance of exercise and nutrition, especially with changes over the lifespan. In addition to the quality of nutritional intake, portion control is important to the maintenance of a healthy lifestyle. Not surprisingly, preliminary data has suggested that individuals who live longest attend to both exercise and diet/nutrition (Ivey et al., 2005; Myers & Sweeney, 2004).

Basic nutritional rules of thumb include eating breakfast every day, eating a variety of the food groups recommended, maintaining one’s ideal weight and drinking water in sufficient quantity each day. Beyond proper nutrition and hydration, consuming one’s calories in several small meals spaced throughout the day is more beneficial than eating two or three large meals. There is a clear relationship between what we eat and our health, moods, performance, and longevity.

Regular physical activity is essential in the prevention of disease and enhancement of health. Exercise increases strength as well as self-confidence and self-esteem. Stretching, exercising for 20-30 minutes a day, and generally leading a physically active life have been seen as beneficial beyond what the effort requires.

Wellness Programs

Wellness programs date back to the 1950s. Major corporations such as Ford, Kodak, Goodyear, and Xerox have had active programs for many years (Kaldy, 1985). The containment of, and reduction in, health care costs has been the main impetus behind the commitment organizations have made to wellness program development. Organizations that have implemented wellness programs for their employees have shown
health related cost savings such as reductions in insurance premiums and decreases in employee absenteeism and turnover (Violette, 1991). Additionally, organizations have reported that wellness programs are inexpensive benefits which produce the following benefits: enhanced recruitment ability, improved job attitudes, increased organizational loyalty, a familial concern for employees, and increased productivity (Falkenberg, 1987).

The Dallas Independent School District provides an example of the impact a wellness program can have on a public school system. One year after implementing a wellness program at a cost of $200,000, the school district reported a savings of $452,000 in substitute teacher fees. Additionally, the school district reported that teachers participating in the wellness program were using an average of three fewer sick days than nonparticipants (Simpson & Pruitt, 1989). The school district also indicated that participants in the program reported a greater sense of personal well-being, improved satisfaction with their jobs, and an increase in productivity. Other reported health benefits attributed to participation included reduced smoking; decreases in weight, body fat, and blood pressure; increases in exercise, and a more balanced diet (Wolford, Wolford, & Allensworth, 1988).

Several studies have indicated that job satisfaction can be related to employee turnover and an employee’s commitment to an organization. Relative to the phenomenon of employee turnover, studies have consistently reported an inverse relationship between job satisfaction and turnover. When job satisfaction is high, turnover rates tend to be lower (Aryee, Wyatt, & Min, 1992; Decotis & Summers, 1987; Holm, Katerberg, & Hulin, 1979; Wright, 1992). Increased job satisfaction has been one of the reported results of the efforts both public and private organizations have made to develop wellness
programs for their employees (Smith, Haight, & Everly, 1986; Wolford et al., 1988). In her study of 82 employees in business and industry, Connolly (2000) found a positive relationship between holistic wellness and job satisfaction.

In a study of 192 elementary school principals in the state of Wisconsin, Eickholt (1993) detected a statistically significant positive relationship between wellness and job satisfaction among male elementary principals. This study supported previous research indicating a positive relationship between the job satisfaction experienced by school principals, their job effectiveness, and overall school effectiveness (Gunn & Holdaway, 1986; Roberts, 1990).

Traditionally, both corporate and school wellness programs have focused only on the physical dimension of wellness. Enhancement of the physical dimension of wellness (fitness and nutrition programs) has been associated with improvement in physiological variables, such as overall fitness, resting pulse, aerobic capacity, muscular strength, flexibility, body fat, and restful sleep (Lennox, Beddell, & Stone, 1990; Siegel & Manfredi, 1984; Steptoe, Kearsley, & Walters, 1993; Tucker, 1990). Attention to the physical dimension of wellness has also been shown to enhance psychological variables, such as self-esteem (Jones, 1988), self-concept (Collingwood & Willet, 1971; Doan & Scherman, 1987), creativity (Hinkle, Tuckman, & Sampson, 1993; Tuckman & Hinkle, 1986), and the perception of stress (Roth & Holmes, 1987; Sime, 1977). However, in a study of 161 American managers, Hutchinson (1996) found that a combination of all components of holistic wellness, which includes the essential self, coping self, creative self, physical self and social self, predicted work performance and job satisfaction better than physical wellness variables alone.
Metzger (2003) provided one example of holistic wellness as it relates to school leadership in her national study of 128 school district superintendents and college deans. In her study, Metzger described holistic wellness as self/inner development, which was composed of six themes: balance, self-actualization, personal improvement, values, inner focus, and relationships. Metzger concluded that one key to reducing the shortages of educational administrators and maximizing the effectiveness in their positions is to incorporate practices and activities that foster self/inner development in the personal and professional lives of educational leaders.

**Leadership**

**History.**

The literature surrounding leadership has proven to be both broad and deep in its history. The word “leader” has been traced back to an origin of over six centuries ago (Stogdill, 1974). With such deep roots, seemingly, the human race would have a complete understanding of the concept of leadership, and in turn, of a leader; however, this is not the case. “Leadership is one of the most observed and least understood phenomena on earth” (Burns, 1978, p.2) despite the fact that “leadership is often regarded as the single most critical factor in the success or failure of institutions” (Bass, 1990, p. 8). “[There are] almost as many definitions of leadership as there are persons who have attempted to define the concept” (Stogdill, 1974, p. 259). In preparation for his writing of *The 8th Habit*, Covey (2004) researched the prominent leadership theories of the twentieth century. He and his team identified five broad approaches (trait theories, behavioral theories, power-influence, situational, and integrative), 24 categories, and 118 distinct leadership theories that emerged and gained prominence within that time frame.
While conducting the research for their Primal Leadership model, Goleman, Boyatzis, and McKee (2002) analyzed close to 500 competency models from global companies (including IBM, Lucent, PepsiCo, British Airways, and Credit Suisse First Boston) as well as from healthcare organizations, academic institutions, government agencies, and even a religious order (Goleman, 1998; Spencer & Spencer, 1993).

Leadership models form a framework for leaders to follow as they develop their personal leadership characteristics. These characteristics lead to leadership practices, which are essential in attaining and maintaining leadership positions. The consistent cultivation of these practices enhances leadership capabilities and helps leaders to become more effective in motivating their subordinates to follow their leads (UCSB, 2009).

**Leadership practices.**

Through their studies of personal-best experiences, Kouzes and Posner discovered that ordinary people who guide others along pioneering journeys follow rather similar paths. Though each case was unique in expression, each path was also marked by some common patterns of action. Looking deeper into the dynamic process of leadership, through case analysis and survey questionnaires, Kouzes and Posner uncovered five practices common to personal-best leadership experiences. When extraordinary things were accomplished in organizations, leaders engaged in the following five practices of exemplary leadership: Model the Way, Inspire a Shared Vision, Challenge the Process, Enable Others to Act, and Encourage the Heart (Kouzes & Posner, 2002).
Model the way.

Modeling the way involves “finding one’s voice by clarifying one’s personal values and setting the example by aligning one’s personal actions with shared values” (Kouzes & Posner, 2003b, p. 58). Exemplary leaders know that if they want to gain commitment and achieve the highest standards, they must be models of the behavior they expect of others. Modeling leaders find their own voice, and then they clearly and distinctively give voice to their values. Personal-bests are distinguished by relentless effort, steadfastness, competence, and attention to detail. Modeling the way is essentially about earning the right and the respect to lead through direct individual involvement and action. People usually follow the person first, then the plan (Kouzes & Posner, 2002).

Inspire a shared vision.

Inspiring a shared vision involves “envisioning the future by imagining exciting and ennobling possibilities, and enlisting others in the dreams by appealing to shared aspirations” (Kouzes & Posner, 2003b, p. 61). Visionary leaders have a desire to make something happen, to change the way things are, to create something that no one else has ever created before. They gaze across the horizon of time, imagining the attractive opportunities that are in store when they and their constituents arrive at a distant destination. Visionary leaders breathe life into the hopes and dreams of others and enable them to see the exciting possibilities the future holds. They understand that they cannot command commitment; it must be inspired. Visionary leaders forge a unity of purpose by showing constituents how the dream is for the common good. They ignite the flame of passion in others by expressing enthusiasm for the compelling vision of their group (Kouzes & Posner, 2002).
Challenge the process.

Challenging the process involves “searching for opportunities by seeking innovative ways to change, grow, and improve; and experimenting and taking risks by constantly generating small wins and learning from mistakes” (Kouzes & Posner, 2003b, p. 63). Exemplary leaders challenge the process. Challenging leaders are pioneers – people who are willing to step out into the unknown. They search for opportunities to innovate, grow, and improve. The challenging leader’s primary contribution is the recognition of good ideas, the support of those ideas, and the willingness to challenge the system to get new products, processes, services, and systems adopted. They are early adopters of innovation. Challenging leaders know well that innovation and change all involve experimentation, risk, and failure; they proceed anyway. “Leaders learn by leading, and they learn best by leading in the face of obstacles. As weather shapes mountains, problems shape leaders. Difficult bosses, lack of vision and virtue in the executive suite, circumstances beyond their control, and their own mistakes have been the leader’s basic curriculum” (Bennis, 1988, p. 146). Leaders are learners; they learn from their failures as well as their successes (Kouzes & Posner, 2002).

Enable others to act.

Enabling others to act involves “fostering collaboration by promoting cooperative goals and building trust, and strengthening others by sharing power and discretion” (Kouzes & Posner, 2003b, p. 66). Leadership is a team effort. Enabling leaders make it possible for others to do good work. They know that those who are expected to produce the results must feel a sense of personal power and ownership. Enabling leaders strengthen everyone’s capacity to deliver on the promises they make. They understand
that when people are trusted to have more discretion, more authority, and more information, they are much more likely to use their energies to produce extraordinary results. When leadership is a relationship founded on trust and confidence, people take risks, make changes, and keep organizations and movements alive. Through that relationship, enabling leaders turn their constituents into leaders themselves.

**Encourage the heart.**

Encouraging the heart involves “recognizing contributions by showing appreciation for individual excellence, and celebrating the values and the victories by creating a spirit of community” (Kouzes & Posner, 2003b, p. 69). Exemplary leaders encourage the heart of constituents to carry on. Genuine acts of caring uplift the spirits and draw people forward. It is part of the leader’s job to show appreciation for people’s contributions and to create a culture of celebration. When striving to raise quality, recover from disaster, start up a new service, or make dramatic change of any kind, encouraging leaders ensure people see the benefit of behavior that is aligned with cherished values. They also know that celebrations and rituals, when performed with authenticity and from the heart, build a strong sense of collective identity and community spirit that can carry a group through extraordinarily tough times (Kouzes & Posner, 2003b).

**Leadership Practices of School Principals**

The following is a summary of the research conducted on leadership practices of school principals. Principals in a group of distinguished California middle schools were found to demonstrate more leadership practices than principals in a group of nondistinguished California middle schools (Cavaliere, 1995). A positive relationship
was found between servant leadership and all five leadership practices for a group of Missouri public school principals (Taylor, 2002). A positive relationship was also found between all five leadership practices and school culture for a group of Mississippi public school principals (Stone, 2003). The most frequent leadership practice was Modeling the Way, followed by Enabling the Process, Inspiring the Shared Vision, Encouraging the Heart, and Challenging the Process for a group New York City public elementary school principals (Jennings, 2003).

Positive relationships were found between successful faculty relationships, faculty perceptions of effective leadership, professional credibility with the faculty, and faculty commitment and the leadership practices in a group of Nebraska public high school principals (Larson, 1992). A positive relationship was found between the leadership practice Encouraging the Heart and teacher job satisfaction for a group of North Carolina public middle school principals (McBroom, 2000). Principals in a group of low-performing North Carolina public K-8 schools were found to perceive their own leadership practices the same as principals in a group of high-performing North Carolina public K-8 schools. Inspiring the Shared Vision was ranked as the least engaged-in leadership practice by principals regardless of school performance (Balcerek, 2000). Principals in a group of Blue Ribbon schools were found to demonstrate more leadership practices in the areas of Challenging the Process, Inspiring the Shared Vision, and Enabling Others to Act than principals in a group of schools that had never achieved Blue Ribbon status (Knab, 1998). Principals in a group of high performing North Carolina public elementary and middle schools demonstrated more leadership practices than principals in a group of average performing North Carolina public elementary and middle
schools, and the average performing principal group demonstrated more leadership practices than principals in a group of low performing North Carolina public elementary and middle schools (Floyd, 1999).

Haycox (2005) provided one qualitative example of leadership efficacy as it relates to wellness and stress in her study of elementary school principals in Sacramento County. The researcher categorized the tools the participants used to handle stress into six indigenous typologies: positive thinking/reading literature, detachment, empathy/relationships, gardening, motivation/values, and spirituality. All six typologies, when analyzed by the author, were closely connected to the definition of internal compass (holistic wellness). For this study, internal compass was defined as the spirituality, values, beliefs, and principles of a person (Haycox, 2005). In summary, Haycox found that principals who rely on their internal compasses (attend to their personal wellness) tend to demonstrate longevity in the position and have better self-efficacy.

**Demographics**

**Gender.**

Researchers have found that it has been more difficult for women to become leaders and to achieve success in educational leadership roles (Coleman, 2005; Eagly & Karau, 2002; Kruger, van Eck, & Vermeulen, 2005; Moorosi, 2007). This phenomenon has been attributed to prejudice; women are perceived less favorably than men as potential candidates for leadership roles. Women practitioners themselves have confessed to an elevated stress level and sense of guilt associated with juggling the conflicting dual roles of homemaker and administrator (Brock & Grady, 2002; Coleman,
2005; Eckman, 2004; Moorosi, 2007). Furthermore, studies have suggested that females have a different way of coping with stress than their male counterparts (Goeller, 1995; Oplatka, 2002).

A great deal of research has addressed the differentiation between the attitudes and behaviors of men and women in the principalship (Oplatka, 2002; Shakeshift, 1995; Strachan, 1999). Some researchers have argued that men and women differ in the ways they manage people and assume leadership roles (Evetts, 1994; Eckman, 2004; Fennell, 1999; Hall, 1996; Oplatka & Atias, 2007; 1995; Regan & Brooks, 1995), while others have claimed that male and female leaders are similar, and gender differences exert little influence on style, career, and behavior (Butterfield & Grinnell, 1999; Coleman, 2005; Eagly & Johnson; 1990; Jirasinghe & Lyon, 1996; Mertz & McNeely, 1998; Reay & Ball, 2000).

**Administrative role.**

Traditionally, there have been distinct differences in the roles of principals, assistant principals, and academic deans, even though those differences have varied from site to site and district to district. The principal has been viewed as being responsible for the overall leadership of the school. The assistant principal has been viewed as being responsible for the overall discipline and attendance of the school. The academic dean has been viewed as being responsible for discipline and attendance of a select group of assigned students (Pounder & Crowe, 2005).

In their traditional roles, principals have often felt overwhelmed (Lindle, 2004; Pounder & Merrill, 2001) while assistant principals have become bored and/or frustrated by their roles (Marshall, 1985; Pounder & Crowe, 2005). Many studies have documented
the high degree of stress felt by principals (Lindle, 2004; Pounder & Crowe, 2005), but only one study was found that compared the stress of principals to that of assistant principals. A New Zealand study of 695 principals and assistant principals revealed that principals reported a higher level of stress (89.6%) than assistant principals (87.4%).

**School level.**

In 2004, the average work week for public, elementary school principals was 58.6 hours, while the average work week for public, secondary school principals was 60.8 hours (NCES, 2006). Traditionally, high schools have had many sport teams, clubs, and organizations that do not exist at the lower school levels. Middle schools have had more teams, clubs, and organizations than elementary schools but fewer than high schools. The additional supervision associated with these organizations has largely explained the longer work hours at the secondary level.

Research has shown that the high school principal position has become increasingly harder to fill when compared to the middle school and elementary school principal positions (Pounder & Crow, 2005). Perspective applicants across all levels have reported the principalship as being more challenging and less desirable than it was in the past (Lindle, 2004; Pounder & Merrill, 2001), but districts have reported fewer qualified applicants for the high school principalship than any other level (Forsyth & Smith, 2002; Pounder, Galvin, & Shephard, 2003).

**School location.**

In 2004, the average workweek for urban school principals was 60.0 hours, while the average workweek for suburban school principals was 59.3 hours, and the average workweek for rural school principals was 57.5 hours (NCES, 2006). Traditionally, urban
schools have often been larger and have had sport teams, clubs, and organizations that do not exist at the other school locations. Suburban schools often had more students, teams, clubs, and organizations than rural schools but fewer than urban schools. The additional supervision associated with these organizations has largely explained the longer work hours at the urban and suburban locations.

Research has shown that the urban and rural school principalships have become increasingly harder to fill when compared to the suburban school principalship (Pounder & Crow, 2005). Perspective applicants across all levels have reported the principalship as being more challenging and less desirable than it was in the past (Lindle, 2004; Pounder & Merrill, 2001), but districts have reported fewer qualified applicants for the urban and rural school principalships than the suburban school principalships (Forsyth & Smith, 2002; Lam & Cormier, 1988; Pounder, Galvin, & Shephard, 2003).

**School NCLB Designation**

No Child Left Behind has been an underfunded mandate that has brought increased accountability concerns to the school principalship (Dierksen, 2005; Ferrandino, 2001; Redfox, 2005). Principals of low achieving schools have been forced to produce large gains every year for every subgroup of students (Sunderman, Orfield, & Kim, 2006). Failure to meet Adequate Yearly Progress goals has resulted in principals’ removal from their schools (Cusick, 2003), but there is nothing in NCLB to attract administrators to low performing schools (Sunderman, Orfield, & Kim, 2006).

Further evidence of the link between stress and school performance has been revealed in Strike’s 2004 study of leadership practices and job-related stressors of Texas 5A high school principals. Those whose campus ratings from the Texas Education
Agency were exemplary reported less stress than those in the recognized and lower rating categories; those in the recognized category reported less stress than those in the acceptable rating category; and those in the acceptable category reported less stress than those principals in the low performing schools.

Many studies have connected high performing schools to dedicated and skilled principals (Cusick, 2003; Goldring & Rallis, 1993; Murphy, 2002; Murphy & Lewis, 1999; Sunderman, Orfield, & Kim, 2006). Principals in a group of distinguished California middle schools were found to demonstrate more leadership practices than principals in a group of nondistinguished California middle schools (Cavaliere, 1995). Principals in a group of high performing North Carolina public elementary and middle schools demonstrated more leadership practices than principals in a group of average performing North Carolina public elementary and middle schools, and the average performing principal group demonstrated more leadership practices than principals in a group of low performing North Carolina public elementary and middle schools (Floyd, 1999).

**Summary**

Tradition and education are two of the significant barriers that must be overcome before school leadership can be successfully redefined (Eckman, 2007; Metzger, 2003; Pounder & Crow; 2005; Olson, 2007). Traditionally, building-level school administrators have always been all things to all people, but “many school leaders are reporting working 60 to 70 hours a week and still not getting the job done” (Billot, 2003, p. 4). The depth and breadth of the administrator’s job responsibilities need to be communicated to students, teachers, parents, and the general public (Connolly, 2007;
Cranston, 2007). The members of the educational community mean well and have well-developed notions of what they think the school leader’s role should be, but they really do not comprehend the scope of the position (Allen, Lutinski, & Schlanger, 2007; Rooney, 2007). When the public fully understands the overwhelming nature of school administration, as it is currently defined, then hopefully they will be supportive of reform strategies, such as those suggested earlier. Nevertheless, that would be only a partial victory. To reinvent school leadership – to structure the administrative workday so that maximum effectiveness can be achieved without the debilitating effects of excessive stress and burnout – school leaders must be taught to optimize their sustainable energy through a wellness paradigm (Groppel, 2000; Loehr, 1997; Loehr & Schwartz, 2001; 2003; Power, 2006).
CHAPTER 3
Research Design and Methodology

Introduction

The purpose of this study was to determine if relationships exist among the perceived stress, holistic wellness, and leadership practices of K-12, public school, building-level administrators. In addition, the different demographic groups were compared with one another on the variables of perceived stress, holistic wellness, and leadership practices variables. A limited number of studies have been conducted that have considered relationships between individual dimensions of wellness, stress, and burn-out in school principals (Dierksen, 2005; Haycox, 2005; Singh, 2001), but studies could not be identified that have investigated the relationship of holistic wellness to the stress and burn-out of K-12, public school, building-level administrators. Studies have shown positive relationships between job satisfaction, job effectiveness, and the overall school effectiveness of principals (Eickholt, 1993; Gunn & Holdaway, 1986; Roberts, 1990), but only one study was identified that related principal stress to school (leadership) effectiveness. Studies have also shown that job satisfaction positively correlates with work performance and holistic wellness (Eichholt, 1993; Connolly, 2000; Hutchinson, 1996); however, there is no study in literature, which deals with the investigation of whether levels of holistic wellness are related to the leadership practices of school administrators. Therefore, there exists a need to determine the relationships among holistic wellness, perceived stress, and leadership practices in K-12, public school, building-level administrators.
Chapter Overview

In this chapter, the methodology used to conduct an investigation of the relationships among holistic wellness, perceived stress, and leadership practices in school administrators is presented. In the following pages, the population, sampling method, design, experimental procedures, data collection, pilot study results, and proposed data analyses of the research study are described.

Research Design

For the purpose of this study, a quantitative research method was used. Quantitative instruments were selected that provide measures of perceived stress, holistic wellness, and leadership practices. The results of the assessments were used as the basis for the statistical analysis of relationship, which may exist between the various variables. Instruments were selected to assess characteristics of interest. The Five Factor Wellness Inventory (5F-Wel; Hattie, Myers, & Sweeney, 2004), the Perceived Stress Scale (PSS; Cohen & Williamson, 1988), and the Leadership Practices Inventory (LPI; Kouzes & Posner, 2003) were proved to be valid and reliable instruments for measuring perceived stress, holistic wellness, and leadership practices. Thus, these survey instruments were used in this study.

Such survey instruments provide information that is based on “quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population” (Creswell, 2009, p. 145). The instruments provided assessments of perceived stress, holistic wellness, and leadership practices that can be assumed to be continuous for purpose of analysis. By having continuous level variables that are quantified, several statistical analyses may be conducted. These analyses include
Pearson’s correlation and multiple linear regression analyses. With continuous level variables, it was determined whether linear relationships exist between the perceived stress, holistic wellness, and leadership practices variables (Burns & Grove, 2005). The linear relationships between the continuous level variables indicated whether an increase in one variable resulted in an increase or decrease in another variable. This determined the extent that the variables of perceived stress, holistic wellness, and leadership practices were associated while the linear regression analysis designated how demographic variables, such as gender, administrative role, school level, school location, and school NCLB designation influenced those relationships. The significance of the findings laid the groundwork for a more in-depth investigation into the topic. Positive supporting evidence could influence the curriculum in educational administration preparation programs as well as the professional development in school districts nationwide.

Various analyses were conducted that required the assumption of continuous level variables. Because the variables were continuous, it was assumed that the variables were normally distributed. By having normally distributed variables, the statistical analyses provided estimates that were more precise such that valid inferences were made. In addition to analyzing associations between the perceived stress, holistic wellness, and leadership practices variables, multivariate comparisons were also made across different groups established by various demographic characteristics. These groups were compared with respect to the perceived stress, holistic wellness, and leadership practices variables. The demographic variables of interest included gender, administrative role, school level, school location, and school NCLB designation.
Research Questions

Three research questions guided this study. These questions are found below along with the methods used to test them.

R1: What are the relationships among holistic wellness, perceived stress, and leadership practices for K-12, public school, building-level administrators?

To address this question, correlations were computed. The specific variables considered are the five holistic wellness self-report scores (Essential Self, Coping Self, Social Self, Creative Self, and Physical Self), the perceived stress self-report scores, and the five leadership practices self-report scores (Modeling the Way, Inspiring a Shared Vision, Challenging the Process, Enabling Others to Act, and Encouraging the Heart).

R2: To what extent can variance in perceived stress of K-12, public school, building-level administrators be accounted for by holistic wellness and leadership practices?

To address this question, a multiple regression analysis was conducted with perceived stress as the dependent variable. The independent variables were holistic wellness self-report scores (Essential Self, Coping Self, Social Self, Creative Self, and Physical Self), Leadership Practices Inventory self-report scores (Modeling the Way, Inspiring a Shared Vision, Challenging the Process, Enabling Others to Act, and Encouraging the Heart) and appropriately coded demographic variables.
R3: What are the differences in group mean scores of holistic wellness, perceived stress, and leadership practices when respondents are grouped by the selected demographic variables (gender, administrative role, school level, school location, and school NCLB designation)?

To address this question, for each demographic variable, the responses were grouped and a multivariate analysis of variance was conducted. Appropriate post hoc analyses were conducted.

**Population**

The participants for this study were a subset of the total population of K-12, public school, building-level administrators in one western state. The state Department of Education and the state Association of School Administrators estimated the target population to be approximately 700, 90% of which were concentrated in two urban/suburban centers. There was no available data on the exact count due to one particular district’s policy. This prevented the district from divulging of names or numbers of its employees. However, indirect communication with the district’s administrative population via its Director of Interaction allowed the participation of administrators within that district.

Participants varied in age, gender, administrative role, school level, school geographic location, and school NCLB designation. Neither the state Department of Education nor the state Association of School Administrators maintained current records on this population’s demographics. However, in 2002 the National Center of Educational Statistics estimated this state’s demographic breakdown to be as follows: average age, 47.7; gender, 58% male and 42% female; race/ethnicity, 8.7% Black/non-Hispanic,
85.5% White/non-Hispanic, and 4% Hispanic; education level, 69.8% with a Master’s degree, 14.5% with an Education Specialist degree, and 13.9% with a Doctorate degree; and average salary, $60,677 (National Center for Educational Statistics [NCES], 2002).

The quantitative results of this study were generalizable to the target population to the extent the sample demographics matched the population demographics (Hair, Anderson, Tatham, & Black, 2006; Mertler & Vannatta, 2002). The demographic make-up of the participants was compared to the demographic make-up of the total population of public, elementary, and secondary administrators in the state as well as the total population of elementary and secondary school administrators nationwide (NCES, 2002).

See tables 1, 4, and 5 in Chapter 4.

**Sampling Frame**

The sample (participants) for this study was a sample of convenience; in that, the participants were selected for this study as they became available (Urdan, 2005). The participants self-selected and voluntarily participated in the study. One advantage of using the convenience sampling plan is that the data for the study may be collected during a shorter period of time (Cozby, 2007). A limitation to this approach is that the results may not be representative of the entire population. This means that the results and inferences may not be generalizable to the entire target population.

**Sample Size**

Two-hundred sixteen of the estimated 700 building-level administrators self-selected for this investigation. The sample size was as close to the target population as could be reasonably obtained in one email contact to each potential participant (see appendix A). The literature suggests an acceptable sample size with an n between 10 and
30 for each dependent variable (Hair, Anderson, Tatham, & Black, 2006; Jaeger, 1984). A sample size in this range provides a sample large enough to optimize power and statistical significance, while still remaining small enough to ensure that effect size is representative of the power and statistical significance obtained (Hair, Anderson, Tatham, & Black, 2006).

Because this research study entailed 11 dependent variables, the preferred sample size fell within the range of 110 to 330 participants. A power analysis using a power of 0.8, an alpha level of 0.05, and 0.5 (medium) effect size yielded a necessary $N$ of 63 for the study (Cohen, 1988). A total of 216 administrators who self-selected responded for the study. This 31% response rate yielded a sample size with more than adequate power for the proposed study.

**Instrumentation**

The instrumentation for this study consisted of three measures: the Five Factor Wellness Inventory (5F-Wel; Hattie, Myers, & Sweeney, 2004), the Perceived Stress Scale (PSS; Cohen & Williamson, 1988), and the Leadership Practices Inventory (LPI; Kouzes & Posner, 2003). The following sections review each instrument and discuss the psychometric properties of each.

**Perceived stress scale.**

The Perceived Stress Scale (PSS) is a measure of the degree to which situations in one’s life are appraised as stressful (Cohen et al., 1983). The PSS items were designed to assess how overloaded respondents find their lives due to the unpredictability and uncontrollability of life events. These three issues (unpredictability, uncontrollability, and overloading) repeatedly have been found to be central components of the experience
of stress (Averill, 1973; Cohen, 1978; Glass & Singer; 1972; Lazarus; 1966, 1977; Seligman, 1975). The PSS also includes a number of direct queries about current levels of experienced stress.

The questions in the PSS ask respondents about their thoughts and feelings during the last month. In each case, they were asked to indicate how often the individual thought or felt a certain way. Possible responses were: (0) Never; (1) Almost Never; (2) Sometimes; (3) Fairly Often; and (4) Very Often. The PSS has been the most widely used psychological instrument for measuring the perception of stress (Cohen, 1986).

The PSS contained 14 items and has a Cronbach’s alpha coefficient of .75 for internal reliability (Cohen, Kamarck, & Mermelstein, 1983). The four items with the lowest factor loadings were dropped to form a 10-item scale with a Cronbach’s alpha coefficient of .78 for internal reliability (Cohen & Williamson, 1988). An abbreviated four-item scale was also developed for use in telephone surveys; it has a Cronbach’s alpha coefficient of .60 for internal reliability (Cohen, Kamarck, & Mermelstein, 1983). The 10-item version of the PSS was chosen for this study because of its higher Cronbach’s alpha coefficient, which gives it a stronger internal reliability than the 14 and 4 item versions. The 10 item PSS takes one to three minutes to complete.

The PSS scale was reprinted with permission of the American Psychological Association. The authors have granted others the freedom to use the Perceived Stress Scale for their research without special permission (Cohen, Kamarck, & Mermelstein, 1983); therefore, the researcher did not need to obtain permission from the authors for its use in this study.
Wellness inventory of lifestyle.

The Five Factor Wellness Inventory (5F-Wel) was designed to assess the components of the Indivisible Self Model of Wellness (IS-Wel). The components were the culmination of more than a decade of research that began with a theoretical model, the Wheel of Wellness (Sweeney & Witmer, 1991; Witmer & Sweeney, 1992), and an assessment instrument, the Wellness Evaluation of Lifestyle (WEL) (Myers, Sweeney, & Witmer, 1996). Examination of a large database using the WEL resulted in modifications to the original Wheel model (Myers et al., 2000) and the original WEL (Hattie et al., 2004).

The 5F-Wel was developed – as was its predecessor – in accordance with Adler’s theory of individual psychology (Dreikurs, 1953). According to Adler, the mind, body, and spirit are integrated into a holistic approach to wellness. The 5F-Wel consists of 91 statements with a four category Likert scale answer format with responses ranging from Strongly Agree to Strongly Disagree and takes 10 – 20 minutes to complete. A single higher-order factor (holistic wellness) is subdivided into five second-order factors (Creative Self, Coping Self, Social Self, Essential Self, and Physical Self), which in turn are further subdivided into seventeen third-order factors (Cultural Identity, Gender Identity, Self Care, Essence, Love, Friends, Intelligence, Control, Emotion, Humor, Work, Exercise, Nutrition, Leisure, Stress, Worth, and Beliefs).

The 5F-Wel was normed on 2093 persons ages 18 to 101. Of the norming group, 52% of the participants were male while 48% were female. Ethnic distribution of the norming group was as follows: 52% Caucasian; 29% African American; 4.3% Asian and Pacific Islander; and 3.2% Hispanic. The Cronbach’s alpha coefficient for the first-order
factor (Total Wellness) was .90. The Cronbach’s alpha coefficient for the second-order factors (Creative Self, Coping Self, Social Self, Essential Self, and Physical Self) ranged from .85 to .92. The Cronbach’s alpha coefficient for the third-order factors ranged from .66 to .87. For statistical testing purposes, only the first and second-order factor scores were used due to the greater consistency of their internal reliabilities (Hattie, Myers, & Sweeney, 2004). Permission to use the 5-F Wel for this research study was sought and granted by co-author Jane Myers, Ph.D (see Appendix A).

**Leadership practices inventory.**

The Leadership Practices Inventory (LPI) was developed through a triangulation of qualitative and quantitative research methods and studies. In-depth interviews and written case studies from personal-best leadership experiences generated the conceptual framework for the LPI, which consists of five leadership practices: Modeling the Way, Inspiring a Shared Vision, Challenging the Process; Enabling Others to Act, and Encouraging the Heart. The actions that make-up these practices were translated into behavioral statements. Following several systematic psychometric processes, the resulting instrument has been administered to over 350,000 managers and non-managers across a variety or organizations, disciplines, and demographic backgrounds (Kouzes & Posner, 2002).

The LPI was created by developing a set of statements describing each of the various leadership actions and behaviors. Each statement was originally cast on a five-point Likert scale and reformulated in 1999 into a more robust and sensitive ten-point Likert scale. A higher value represents more frequent use of a leadership behavior. Possible responses are: (1) Almost never do what is described in the statement; (2)
Rarely; (3) Seldom; (4) Once in a while; (5) Occasionally; (6) Sometimes; (7) Fairly Often; (8) Usually; (9) Very Frequently; and (10) Almost always do what is described in the statement. Statements were modified, discarded, or included, following lengthy discussions and systematic feedback sessions with respondents and subject matter experts as well as empirical analyses of various sets of behaviorally-based statements. Ongoing analysis and refinements in the instrument have continued as the database accrued until there were well over 100,000 respondents (Kouzes & Posner, 2003).

The LPI contains thirty statements and takes approximately 8 – 10 minutes to complete. Each of the five key practices of exemplary leaders is measured by six statements. The reliability coefficients for the scales of the LPI-Self version are as follows: .77 (Modeling the Way), .87 (Inspiring a Shared Vision), .80 (Challenging the Process, .75 (Enabling Others to Act), .87 (Encouraging the Heart). The reliability coefficients for the scales of the LPI-Observer version are as follows: .88 (Modeling the Way), .92 (Inspiring a Shared Vision), .89 (Challenging the Process, .88 (Enabling Others to Act), .92 (Encouraging the Heart). The reliability coefficients for the LPI-Self are lower than the LPI-Observer reliability coefficients; however, instrument reliabilities above .60 are considered acceptable (Aiken, 1997). Furthermore, recruiting an observer to assess each participant on leadership practices would jeopardize both validity and participation rates (Kouzes & Posner, 2003). Permission to use the 5-F Wel for this research study was sought and granted by co-author Barry Posner, Ph.D (see Appendix A).
Data Collection

The Tailored Design Method (Dillman, 2007) was adapted in order to guide the data gathering process for this study. Dillman (2007) built his method around the concept that the administration and response to a questionnaire is a social exchange. He believes that people are much more likely to complete and return self-administered questionnaires if they trust that the rewards of doing so will, in the long-run, outweigh the costs they expect to incur. A researcher can establish trust by providing a token of appreciation in advance, obtaining sponsorship by a legitimate authority, and/or making the task appear important (Dillman, 2007). A researcher can invoke a reward by showing positive regard, saying thank you, asking for advice, supporting group values, giving tangible rewards, making the questionnaire interesting, giving social validation, and/or communicating the scarcity of response opportunities. A researcher can reduce the social cost by avoiding subordinating language, avoiding embarrassment, avoiding inconvenience, making the questionnaire short and easy, minimizing requests to obtain personal information, and/or emphasizing the request’s similarity to other requests. The ultimate goal of the Tailored Design Method of data collection is to reduce survey error by maximizing the response rate.

While questionnaire development is an important element of a quality survey, implementation procedures have a much greater influence on response rates. Multiple contacts, the contents of letters, appearances of envelopes, incentives, personalization, sponsorship, and other attributes of the communication process have a significantly greater collective capability for influencing response rates than does questionnaire design. Furthermore, studies have shown multiple contacts to be more effective than any
other technique for increasing response to surveys by mail (Scott, 1961; Linsky, 1975; Dillman, 1991). Recent research has confirmed that this is also true of surveys by email (Schaefer & Dillman, 1998).

The Tailored Design Method is a process used to administrate a questionnaire using a system of five complementary contacts proven to maximize survey response rates. The first contact is a brief pre-notice letter that is sent to the respondent a few days prior to the questionnaire. The purpose is to provide a positive and timely notice that the recipient will be receiving a request to help with an important study or survey. It should be brief, personalized, positively worded, and aimed at building anticipation rather than providing the details of conditions for participation in the survey. Considerable research has shown that a pre-notice will improve response rates to mail surveys (Dillman, 1991; Dillman, Clark, & Sinclair, 1995; Fox, Crask, and Kim, 1988; Kanuk & Berenson, 1975).

The second contact was the questionnaire itself, which was sent a few days to a week after the pre-notice. The questionnaire should be accompanied by a detailed cover letter explaining why a response is important. The cover letter should be limited to one page and contain the following critical pieces of information: date, inside name and address, salutation, importance of survey, confidentiality of responses, voluntary participation, enclosures, researcher’s contact information, signature, and postscript (Dillman, 2007).

The third contact is a postcard that was sent a few days to a week after the questionnaire. This mailing expresses an appreciation for responding and indicates that if the completed questionnaire has not been mailed it is hoped that is will be returned soon. The postcard is sent not to overcome resistance but rather to jog memories and rearrange
priorities. It should convey a sense of importance without sounding impatient or unreasonable.

The fourth contact is a replacement questionnaire sent to non-respondents two to four weeks after the original questionnaire was mailed. It indicates that the person’s completed questionnaire had not yet been received and urges the recipient to respond. The letter that accompanies this questionnaire contains all of the elements of the previous cover letter, but it has a tone on insistence that the previous letter lacked.

The fifth and final contact was made by phone one week after the fourth contact or by certified mail two to four weeks after the previous mailing. The different mode of contact distinguishes each type of final contact from the previous contacts received via regular mail delivery. The effect being sought was to increase the perception of the importance of the study. Each of these delivery modes builds upon past research showing that a “special” contact of these types improves overall response to mail surveys (Dillman et al., 1974; Heberlein & Baumgartner, 1978).

The Tailored Design Method of data collection was chosen for this investigation in an effort to maximize the participation of the members of this population (K-12, building-level, public school administrators in one western state). Furthermore, the researcher chose to collect the data via a web-based survey for multiple reasons. First, internet surveys are much more time efficient than traditional mail surveys. The instrument can be delivered to the participant instantaneously and the data can be returned in a matter of minutes. Second, the cost of conducting an internet survey can be restricted to the cost of a monthly subscription to an internet service provider and/or the monthly subscription to a commercial survey software; whereas, the cost of conducting a
mail survey can run into hundreds of dollars in postage and handling fees. Third, the convenience of being able to remotely collect data from hundreds of sites spread out over an entire state while the researcher is employed in another state makes the internet survey superior to the mail survey in this case. Finally, with an internet survey, the submitted data of each participant can be directed into a secure database. When all data is collected, the data can be transferred directly into a statistics program without the fear of losing data or making a transcription error in data entry that can occur with the traditional mail survey. For this investigation, the Tailored Design Method, described previously, was modified to accommodate a web-based survey of participants, the restrictions of the Institutional Review Board of one of the districts and the communication challenges that became apparent as the study progressed. In the following paragraphs, the investigative process for this study is revealed along with an explanation for each modification to the Tailored Design base model.

First, the researcher sought and obtained permission to use the three instruments (5F-Wel, PSS, and LPI) for this study (see Appendix A), then the researcher sought to determine how best to administer the three separate instruments. Due to the additional time and technical difficulty of logging in to a website three separate times to complete the survey, the three instruments (5F-Wel, PSS, & LPI) were combined into one long questionnaire with three separate sets of instructions (see Appendix B). The survey order was determined by the length of each instrument. The PSS, which contained 10 questions, was placed first in the survey. The LPI, which contained 30 questions, was placed second in the survey. The 5F-Wel, which contained 91 questions, was placed third in the survey.
After combining the three separate instruments into one questionnaire, a pilot study was conducted to investigate weaknesses in survey construction (see Appendix C). For the pilot, the combined questionnaire was keyed into an excel spreadsheet and administered via paper and pencil to a group of graduate students. After completing the questionnaire, each participant was asked to answer a series of post-survey questions (see Appendix D). The responses to those post-survey questions provided guidance in the eventual construction of the actual web-based survey.

A waiver of written informed consent from the University of Nevada, Institutional Review Board (see Appendix E) was then sought and obtained. After receiving IRB approval, the researcher contacted each school district via email (see Appendix F). The email explained the nature of the study, requested the district’s participation, and asked the superintendent to designate a liaison who could be contacted to obtain the names, titles, and email addresses of their site-level administrators. The Description of Study submitted with the IRB application was also attached to the email sent to the superintendents. The initial emails to superintendents were sent out in September of 2005. By October, less than half of the districts had responded, so the emails were followed-up by phone calls to the district offices, which had not responded. During those phone conversations, the researcher learned that many of the superintendents had not received the previous email. In those districts, the email did not pass through the districts’ spam filters. This was the first indicator that technical challenges were going to hamper this study; however, at this point the researcher thought the problem was simply the result of the initial email being sent from the researcher’s personal account.
The responses to the initial contacts, whether by email or phone, were positive. Not only were the superintendents of the individual school districts supportive of the proposed study, but in many cases the superintendents themselves took a personal hand in obtaining the names and email addresses of the building-level administrators. In two of the larger districts, however, an application to conduct research needed to be submitted. With one of those two districts, the application was approved and the requested participant contact information was provided forthwith. With the other district, the application was approved with the contingency that all correspondence from the researcher be filtered through the Director of Interaction in the district. Therefore, for this large district, the building-level administrators were invited to participate in the study but the researcher was unable to verify names, titles, email addresses, or number of building-level administrators in the district. The process of obtaining contact information and establishing communication lines with potential participants took until mid-January of 2006. Between January 17, 2006 and January 20, 2006, email addresses for potential participants were verified on-line and by phone. The exception was for the potential participants in the one large district mentioned previously.

While the contact data base was being assembled, the researcher constructed and beta tested the web-based survey (see Appendix G). Many constructive suggestions from the pilot study contributed to the final wording and format of the web-based survey. Five additional demographic questions were included at the end of the survey.

After review of the internet research software available (Baker, Crawford, & Swinehart, 2004; Crawford, 2002; Crawford, McCabe, & Pope, 2005), the researcher chose surveymonkey.com due to its enhanced reputation and ease of use. The technology
available can easily entice one to add eye-catching colors and graphics to a web survey, especially when research has shown that such displays enhance participation rates (Dillman, Tortora, Conradt, & Bowker, 1998; Nichols & Sedivi, 1998). However, Dillman et al warn that slower running and less powerful computers are likely to overload and crash when forced to download web surveys with advanced design features. Therefore, the survey was designed to be black on white with no graphics or advanced features.

The web-based survey was designed to be a forced-choice survey to maximize precision in the statistical analysis of the data collected for the study (Dillman, 2007). Participants were required to answer each question to advance through the survey; however, Dillman (2007) cautioned about forcing choices when the subject matter is sensitive, so for three demographic questions pertaining to race, ethnicity, and sexual orientation in the 5F-Wel section, the researcher provided a “prefer not to answer” option in addition to the author-supplied responses.

In accordance with Dillman (2007), the front and back covers of the survey were brief and concise. The front cover (See Appendix H) welcomed the participant to the site, explained that each of the three sections of the survey would be preceded by its own set of instructions, explained how to answer the questions and advance through the survey, and explained how to submit the participant’s data and exit the survey at the end. The back cover (see Appendix H) congratulated and thanked the participant for completing the survey, reminded the participant that the data submitted was confidential and supplied the participant with an email address to respond to if a summary group report of the results was desired.
As per the Tailored Design Method, the first contact sent to potential participants was a brief pre-notice letter (see Appendix I). The length (no more than one page) recommended by Dillman was heeded; however, the content varied slightly from his recommendations. The University of Nevada’s Institutional Review Board preferred a model, espoused by Creswell (2005), which contained the following elements: importance of participation, purpose of the study, risks, benefits, assurances of confidentiality, sponsorship, and completion time. Those choosing to participate in the study were directed to respond with a “yes” in the subject box to a university email account. This process eliminated those individuals choosing not to participate from receiving future correspondence from the researcher. Finally, potential participants were encouraged to contact the researcher using the phone number or email address provided if they had any questions about the proposed study or their role in it.

Between January 20 and January 30, 2006, initial invitations to participate in the survey (pre-notice letters) were sent by email directly to the individual administrators in each district, except for the one large county. The Director of Interaction sent out those invitations on January 30, 2006, after the invitation format and content were approved by the district administration. Those interested in participating in the study were given a timeframe of no later than February 10, 2006, to respond.

By February 19, 2006, 215 administrators had responded that they would complete the survey. The names and email addresses of these individuals were added to the address book set up on the surveymonkey.com server. All future email contacts with the participants would come directly from the surveymonkey.com server. This ensured that all future correspondence would be personalized, a recommendation of Dillman.
(2007), and restricted to only those volunteering to participate in the study, a requirement of the University of Nevada’s Institutional Review Board.

The second contact (see Appendix J) stayed within the spirit of the Tailored Design Method as modified to meet the needs of a web-based survey. Participants received their first survey link letter, which thanked them for agreeing to participate and contribute to a knowledge base, encouraged them to answer the questions honestly as their answers would remain confidential, provided them with a hotlink to go to the website where the survey was maintained, and provided them with a password to access the survey (Dillman, 2007). In addition, the University of Nevada’s Institutional Review Board required a post-script containing contact information should participants wish to report any concerns about the study. The first survey link letter (second contact) was sent on February 19, 2006, to the 215 volunteer participants. By February 26, 2006, 101 responses were received.

The third contact (see Appendix K) stayed within the spirit of the Tailored Design Method but diverged in form. Although the message did not come on a postcard as recommend by Dillman (2007), the second survey link letter did contain the proposed message. On February 26, 2006, the second survey link letter was sent to the 114 participants who had not yet completed the survey. In this letter, the participants were reminded of the importance and timeliness of the survey, were provided with a hotlink to go to the website where the survey was maintained, and were provided with a password to access the survey (Dillman, 2007). The University of Nevada Institutional Review Board post-script was again included.
After the second contact was sent, several participants contacted the researcher indicating that the hotlink to the web survey did not work on their computers. The researcher contacted surveymonkey.com for assistance. Technical assistance suggested that participants try copying the hotlink and posting it directly into their browsers. As a result, a statement to that effect was added to the second survey link letter.

During this timeframe, two administrators from one district were dropped from the list because they revealed that they were not building-level administrators. Subsequently, three administrators who had not received the first survey link letter due to technical problems were added to the participant list. This transaction amended the population of all who agreed to participate to 216 participants. By March 3, 2006, 42 additional responses were received.

The fourth contact (see Appendix L) again maintained the spirit of the Tailored Design Method while diverging slightly on form. While no long cover letter or additional questionnaire was provided, the message was one of urgency and insistence. As with the previous letters, the third survey link letter provided the remaining participants with a hotlink to go to the website where the survey was maintained and a password to access the survey once there (Dillman, 2007). The University of Nevada Institutional Review Board post-script was again included. On March 3, 2006, the third and final survey link letter was sent to the 73 participants who had previously failed to complete the survey. By March 10, 2006, 68 additional responses were received.

The fifth and final contact occurred exactly in accordance with the Tailored Design Method. The five remaining participants were contacted by phone by March 12, 2006. In each case, the participant expressed a desire to complete the survey but was
unable to do so due to technical difficulties. After being assisted by the researcher, the five individuals were finally able to access and complete the survey. By March 17, 2006, all 216 qualified and willing participants had completed the survey.

For each contact attempt, the researcher emphasized the importance of the study and the confidentiality of the respondents’ results (Fowler, 1988). At the end of the survey itself, participants were thanked for their participation and contribution to the profession. Returns were grouped by intervals and a wave analysis was conducted to check for response bias (Creswell, 2005).

**Operational Definition of Variables**

**Perceived stress.**

The perceived stress was operationalized as a continuous (interval) level variable. This was based on the item responses from the survey instruments included in the study. The responses from the items were summed to provide an overall perceived stress score. A higher score indicated that there is a higher perceived stress, while a lower score indicated the opposite.

**Holistic wellness.**

The holistic wellness was operationalized as a continuous (interval) level variable. This was based on the item responses from the survey instruments included in the study. The responses from the items that were used to measure the holistic wellness were summed to provide an overall holistic wellness score. A higher score indicated that there is a higher perceived holistic wellness, while a lower score indicated the opposite.
Leadership practices.

The leadership practices were operationalized as a continuous (interval) level variable. This was based on the item responses from the survey instruments included in the study. The responses from the items for each scale were summed to provide five measures of leadership practices. Higher scores indicated higher perceived leadership practices on the specific trait, while a lower score indicated the opposite.

Gender.

The gender of the participant was operationalized as a dichotomous variable. These categories were either male or female.

Administrative role.

The administration role was operationalized as a categorical (nominal) level variable. The categories were principal, assistant principal, or academic dean.

School level.

The school level was operationalized as a categorical (nominal) level variable. The categories were elementary school, middle school, or high school.

School location.

The school location was operationalized as a categorical (nominal) level variable. The categories were rural, suburban, or urban school, as described in the definitions section of Chapter 1.

School NCLB designation.

The school NCLB designation at time of the study was operationalized as a categorical (nominal) level variable. The categories were Exemplary in Achievement,
High Achieving, Adequate Achievement, Watch List, or Need of Improvement NCLB designation. These categories were established by the Nevada Department of Education.

**Institutional Review Board**

After correspondence with the University of Nevada’s Institutional Review Board, an IRB exemption was granted for this research (see Appendix D). School district administrators are not a vulnerable population and no personal contact was made with the participants. All participation was voluntary and only those volunteering received more than one contact. All email correspondence was sent Blind Carbon Copy (Bcc) so that each individual saw only his/her and the researcher’s email addresses. If one of the recipients inadvertently hit “reply to all,” the only recipient was the researcher (Dillman, 2000). All participants received a pre-notice letter explaining the importance of the study, purpose of the study, risks, benefits, assurances of confidentiality, sponsorship, completion time, and the use of the resulting data prior to their actual participation.

**Data Analysis**

For demographic data, appropriate summary statistics was computed. Frequencies were calculated. Means and standard deviations were computed for all scales of interest for all instruments. Tests for normalcy and linearity were conducted to determine and eliminate outliers. The Kolmogorov-Smirnov test was used to assess the normality of the data; it is a commonly used method to assess normality (Lehmann & Romano, 2005). The above information was used to describe the sample and provide a foundation for hypotheses testing.

The demographics were compared and contrasted to the demographics of the population, which is composed of all K-12, public school, building-level school
administrators nationwide (NCES, 2002). Nationwide demographics were found in the NCES database so that comparisons could be made. The comparisons between the sample and population were based on the proportion of individuals who belong in each of the groups. This ensured that the sample provides a representative sample of the target population.

**Research question #1**

Research question #1 (What are the relationships among holistic wellness, perceived stress, and leadership practices for K-12, public school, building-level administrators?) was addressed by computing a bivariate Pearson Product Moment correlation of the five holistic wellness (Essential Self, Coping Self, Social Self, Creative Self, and Physical Self) self-report scores, the perceived stress self-report scores, and the five leadership practices (Modeling the Way, Inspiring a Shared Vision, Challenging the Process, Enabling Others to Act, and Encouraging the Heart) self-report scores. Bivariate correlations identified the nature and strength of the relationships between each single variable and all other variables.

Pearson Product Moment correlation was selected for this research question, because the Pearson Product Moment correlation determines the linear association between two continuous (interval/ratio) level variables (Burns & Grove, 2005). The relationships among the five holistic wellness variables and among the five leadership practices variables were referred to as interclass correlations, because they share the same measurement class. The relationships among the perceived stress variable and the holistic wellness variables and the relationships between the perceived stress variable and
the leadership practices variable were referred to as intra-class correlations, because they share neither the same metric nor the same variance.

Pearson Product Moment correlation is a statistic to assess the linear association between two continuous (interval/ratio) level variables (Burns & Grove, 2005). Correlations have a range from – 1 to + 1 (Moore & McCabe, 2006). A correlation of – 1 would indicate that there was a strong negative linear association between the variables, meaning that when one variable increased, the other variable decreased. In contrast, a correlation of + 1 would indicate that there was a strong positive association between the variables, meaning that when one variable increased, the other variable increased. The significance of the correlation between the variables was determined by using a t-statistic. The t-statistic was tested against a critical value from the t-distribution (Moore & McCabe, 2006). The level of significance for these correlations was set at the .05 level of significance.

**Research question #2**

Research question #2 (To what extent can variance in perceived stress of K-12, public school, building-level administrators be accounted for by holistic wellness and leadership practices?) was addressed by a multiple regression analysis with perceived stress as the dependent variable. The independent variables were holistic wellness self-report scores (Essential Self, Coping Self, Social Self, Creative Self, and Physical Self), Leadership Practices Inventory self-report scores (Modeling the Way, Inspiring a Shared Vision, Challenging the Process, Enabling Others to Act, and Encouraging the Heart) and appropriately coded demographic variables (gender, administrative role, school level, school location, and school NCLB designation).
A multiple stepwise regression is the appropriate method of analysis when the research problem involves a single dependent variable presumed to be related to multiple independent variables. In this case, the analysis attempted to predict perceived stress from holistic wellness variables, the leadership practices variables, and the selected demographic variables. Stepwise regression is appropriate when there are a large number of independent variables to be included in the model. The demographic variables may be included in the stepwise regression model; each was coded using dummy variables.

This means that each demographic variable was assigned a binary value of zero (0) or one (1) for the stepwise regression analysis. Individuals who belonged to a specific group or category were assigned a value of one (1), whereas, individuals not belonging to the specific group or category were assigned a value of zero (0). For example, school location was a categorical variable that had three distinct groups or categories. Those groups or categories were rural, suburban, and urban. If an individual was selected from a rural school, they were assigned a value of one (1); whereas, individuals not belonging to a rural school were assigned a score of (0). Individuals selected from a suburban school were assigned a value of one (1), whereas individuals not belonging to a suburban school were assigned a score of zero (0). Those from urban schools were then used as the reference group for this variable. The urban school setting was used as the reference group, in order to avoid linearity between the variables. Linearity occurred when one variable could be comprised of a linear combination of the other variables.

In order to determine which explanatory variables (predictor variables) should be included in the analysis, the stepwise selection method was implemented within SPSS. This resulted in the model with the fewest number of significant variables in the analysis.
(Worrall & Kolpin, 2004). Initially, the model included the predictor variable which significantly influenced the dependent variable. Thus, there was an intercept and one predictor variable. After which, the computer program selected the next best predictor variable, given the existence of the first variable. The process was repeated until all variables of significance were considered. As each variable was added, its contribution of new variance was considered. At each step, the computer program tested for significance.

Significance (p-value) for the difference between each model was then calculated based on the test statistics obtained from the comparison. The variable with the lowest p-value was considered to be the most significant variable in the prediction of the response variable so that variable was added to the model. The next step was to fit regression models including each of the remaining predictor variables, \( j = 1, 2, \ldots, n \); \( p-1 \) in the data with the first chosen variable. Log-likelihood values were calculated for each of the models with the resulting likelihood values being compared to the new model containing both the intercept as well as the variable found to be the most significant in the previous step (Field, 2005; Worrell & Koplin, 2004).

After this was completed, the variable with the lowest p-value was once again added to the model. The process was repeated so that every variable meeting the entry criteria was entered into the model. After all the statistically significant variables were entered into the model, any variable currently in the model found to have a p-value greater than the predefined removal probability was removed from the model. This was continued until all the variables in the model were significant with respect to the entry and removal criterion. If a variable was removed from the model, then it was not added
back to the model. When there were no more non-significant variables in the model, the
stepwise procedure stopped, with the resulting model being the most parsimonious model
that contained only significant variables.

The fit of the resulting model was assessed by using the R, $R^2$, and adjusted $R^2$
values of the model. The R-value of the model indicates the multiple correlation
coefficients (Moore & McCabe, 2006). The multiple correlation coefficients represent
the association between the independent variables in the model with the dependent
variable in the model. In multiple regression analysis, the R-value can take on a range of
values from zero to one (Moore & McCabe). The $R^2$-value then represents the amount of
variation in the dependent variable that is explained by the independent variables
included in the model (Tabachnick & Fidell, 2007). The $R^2$-value can take on a range of
values from 0 to 1 (Tabachnick & Fidell, 2007), with a value of one indicating that the
independent variables are able to explain all of the variation in the dependent variable.

The adjusted $R^2$ value is similar to the $R^2$ value, with the exception that it takes
into account the sample size and the number of independent variables included in the
model. Ideally, the adjusted $R^2$ would be close to the $R^2$ value (Field, 2005). The
adjusted $R^2$ value also has a range of values from zero (0) to one (1).

Stepwise multiple general linear regression was used to determine if several
independent variables were significant predictors of a continuous dependent variable
while taking into account the other independent variables in the model. The general
formula for the regression model is:

$$Y = A + B_1X_{1i} + B_2X_{2i} + \ldots + B_pX_{pi} + e$$
Y is the dependent variable, A is the intercept of the model which is equal to the value of the dependent variable when the independent variable is equal to zero, $B_{1i}$, $B_{2i}$, … $B_{pi}$ are the coefficients for the independent variables and indicate how many units change there is in the dependent variable for every one unit increase in the independent variable when controlling for the other independent variables in the model. $X_{1i}$, $X_{2i}$, …, $X_{pi}$ are the values of the independent variables observed in the data and $e$ is the random error term that is normally distributed with a mean of zero and a constant variance (Keuhl, 2000).

The significance of the independent variable was based on a t-statistic (Tabachnick & Fidell, 2007). The independent variable parameter estimate was tested against a critical t-value. If the independent variable was significant (i.e. $p < .05$), then that indicated the independent variable significantly predicted the dependent variable. By using the stepwise multiple regression method, the result was a regression model that contained only the significant independent variables while maintaining parsimony (Tabachnick & Fidell, 2007). This means that the smallest model, where all independent variables are significant, was used.

**Research question #3**

Research question #3 [What are the differences in group mean scores of perceived stress, holistic wellness, and leadership practices when respondents are grouped by the selected demographic variables (gender, administrative role, school level, school location, and school NCLB designation)?] was addressed by grouping the responses for selected demographic variables and conducting multivariate analyses of variance to determine if gender, administrative role, school level, school location, and school NCLB designation influenced perceived stress, holistic wellness, and leadership practices in
school administrators. The multivariate analyses were followed up with individual univariate analyses of variance to identify specifically where the significance lies.

In order to address this research question, a multivariate analysis of variance (MANOVA) was conducted. The MANOVA was used to determine whether single or multiple categorical variables significantly explained the variation in several continuous dependent variables (Tabachnick & Fidell, 2007). Since there was a significant difference between the independent variables and the dependent variables then the independent variable significantly explained the variation in the dependent variables. Therefore, the MANOVA was used as there were several dependent variables considered to be correlated with one another. By using the MANOVA, the correlations between the dependent variables were taken into consideration, so that it could be determined whether there was a difference between the independent and dependent variables, after accounting for this correlation between the observations.

The assumption of the MANOVA that needed to be met for this analysis was that the observations were independent of one another. This means that the participants included in the study had to be independent of one another so that valid inferences and conclusions could be drawn. It was assumed that each participant was independent of one another. The second assumption was that the data had to be normally distributed. The test that was used to assess the normality of the data was the Kolmogorov-Smirnov test. The Kolmogorov-Smirnov test is a commonly used method to assess the normality of the data (Lehmann & Romano, 2005).

The last assumption that needed to be assessed was the equality of variance-covariance matrices. The equality of variance-covariance matrices was assessed by using
the Box-test for equality of variance-covariance matrices. If the Box-test is significant, the variance-covariance matrices are not equal. In contrast, if the Box-test is not significant, the variance-covariance matrices are equal. In either case, the analyses were adjusted according to the findings regarding the equality of the variance-covariance matrices.

The purpose of the MANOVA is to determine whether there are any statistical differences in the scores received for the dependent variables for each group associated with the independent variable (Keuhl, 2000). For the purpose of this analysis, the dependent variables were the perceived stress, holistic wellness, and leadership practices. For this statistical procedure, the mean values that were used in the analyses were derived from the different groups of subjects for the combination of dependent variables (Tabachnick & Fidell, 2001). In this sense, one has another source of variability that has to be accounted for in the assessment of the differences between the independent variables and dependent variables over time. The statistical analysis conducted for this procedure was similar to that of an ANOVA except that now one had to account for this extra variability within each of the subjects (i.e. multiple dependent variables). This was accomplished by partitioning the error term in the MANOVA by the individual differences of the subjects for the multivariate comparison of perceived stress, holistic wellness, and leadership practices (Tabachnick & Fidell, 2001). This correction applied to all occurrences in the study. In the context of this study, this included differences within the perceived stress, holistic wellness, and leadership practices with the other independent variables in the study.
For the MANOVA, one can also evaluate between-subjects in order to determine if there is a difference between the subjects included in the study. This is the same as within-subjects analysis except for the extra variability in the model that is explained by the between-subject factors included in the model. This was accomplished by partitioning the error term in the MANOVA by the differences between each of the subjects (Tabachnick & Fidell, 2001). By using the MANOVA one would be able to determine whether there is a significant difference in the perceived stress, holistic wellness, and leadership practices scores at the same time.

The independent variables that were of interest for this analysis are gender, administrative role, school level, school location, and school NCLB designation. MANOVA was used to analyze the perceived stress, holistic wellness, and leadership practices scores for the groups established by the variables of interest. For example, when gender was considered, responses were divided into two distinct and independent groups. The male and female participants were compared using their perceived stress, holistic wellness, and leadership practices scores. The following variables were analyzed the same way: administrative role, school level, school location, and school NCLB designation. The various groups that were established by the independent variables were analyzed using a one-way MANOVA.

If the results from the MANOVA were significant, then a post hoc test was conducted to determine areas of significance. This indicated which categories of the independent variables significantly differed from one another with respect to the average scores of the dependent variable observed for each category. As for the continuous covariate (or control variable) in the model, a significant difference would indicate that
the dependent variable significantly varied with the independent variables, which also indicated that the covariates were able to significantly explain the variation in the dependent variables.

In addition, the univariate tests examined the direct difference between the independent variable and a single dependent variable. In this case, the analyses revealed the differences of the perceived stress, holistic wellness, and leadership practices variables as they interact with gender, administrative role, school level, school location, and school NCLB designation. Appropriate post hoc analyses were conducted to determine how the independent variables differed from one another with respect to the mean scores of the dependent variables. The significance of the post hoc test was determined by using a level of significance equal to .05.

The post hoc analysis was conducted through Bonferroni’s or Tukey’s tests which adjusts for the number of comparisons made in the model. For instance, by using the Bonferroni procedure, one is able to adjust for the multiple comparisons that are made by adjusting the p-value required to determine the significance of the variable (Moore & McCabe, 2006). As an example, if there are two comparisons being made and the level of significance that is to be used in the study is the 5% level of significance, then one would require a p-value equal to 2.5% (.05/2 = .025) in order to deem that the effect the independent variable has on the dependent variable is significant. On the other hand, Tukey’s method is another procedure that is used for pair wise comparisons. Like the Bonferroni procedure, Tukey’s method adjusts for the multiple comparisons being made by increasing the critical value used to determine the significance of the variables.
In each case, the significance of the Bonferroni procedure and Tukey’s method were assessed by a statistic that follows a t-distribution. If the t-statistic exceeds the critical value for the distribution, then it would be concluded that there was a significant difference between the independent group of subjects (i.e. gender, administrative role, school level, school location, and school NCLB designation). The variables that were assessed in the post hoc analysis will be based on those that were found to be significant in the univariate analysis.
CHAPTER 4

Results and Findings

Introduction

The purpose of this quantitative study was to determine if relationships exist among the perceived stress, holistic wellness, and leadership practices of K-12, public school, building-level administrators. The different demographic groups were also compared with one another to determine whether this differentiates the perceived stress, holistic wellness, and leadership practices of K-12, public school, building-level administrators. A total of 216 participants were involved in this study; they are a sample of K-12, public school, building-level administrators. The participants were asked to answer the three survey instruments, namely the Five Factor Wellness Inventory, the Perceived Stress Scale, and the Leadership Practices Inventory to determine the holistic wellness, perceived stress and leadership practices respectively. The scores of participants on these survey instruments were used in this analysis to answer the following research questions:

R1: What are the relationships among holistic wellness, perceived stress, and leadership practices for K-12, public school, building-level administrators?

R2: To what extent can variance in perceived stress of K-12, public school, building-level administrators be accounted for by holistic wellness and leadership practices?

R3: What are the differences in group mean scores of holistic wellness, perceived stress, and leadership practices when respondents are grouped by the selected
Chapter Overview

In this chapter, the results and findings on the investigation of the relationships among holistic wellness, perceived stress, and leadership practices of school administrators are presented. The succeeding sections provide the descriptive statistics of demographic and questionnaire subscales. After which, statistical analyses are presented to answer the research questions posed in this study. Furthermore, a summary of the key findings drawn from the analyses are presented.

Description of the Samples

Of the target population of approximately 700 K-12, public school, building-level administrators, 216 voluntarily participated in this quantitative study. Through the post hoc analysis of sample size calculation, it was determined that the 216 responses provided a power of 99.57% for the correlation analysis, 98.66% for the multiple regression analysis with 10 predictors, and 84.33% for the one-way ANOVA comparing mean scores for five groups. Although the response rate was only 30.86%, based on the power calculations, it can be concluded that the 216 participants were sufficient to provide statistically valid analyses for this study. The frequency and percentages of the demographic profiles of participants are presented in the succeeding tables. Table 1 presents the descriptive statistics for the gender of participants. It can be observed that there were more female (N = 125, 57.9%) than male (N = 91, 42.1%) respondents in this analysis.
Table 1

*Frequency and Percentages of Participants’ Gender*

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>91</td>
<td>42.10</td>
</tr>
<tr>
<td>Female</td>
<td>125</td>
<td>57.90</td>
</tr>
<tr>
<td>Total</td>
<td>216</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Table 2 on the other hand presents the frequency and percentages of participants’ marital statuses. The participants were classified into five groups. The first was composed of those who were married. The second group was composed of those who were single.

Table 2

*Frequency and Percentages of Participants’ Marital Status*

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married-Partner</td>
<td>173</td>
<td>80.10</td>
</tr>
<tr>
<td>Single</td>
<td>9</td>
<td>4.20</td>
</tr>
<tr>
<td>Separated</td>
<td>1</td>
<td>.50</td>
</tr>
<tr>
<td>Divorced</td>
<td>30</td>
<td>13.90</td>
</tr>
<tr>
<td>Widowed</td>
<td>3</td>
<td>1.40</td>
</tr>
<tr>
<td>Total</td>
<td>216</td>
<td>100.00</td>
</tr>
</tbody>
</table>

The third group was composed of those who were separated. The fourth group was composed of those who were divorced while the fifth group was composed of those who were widowed. Among these groups, the most number of participants were classified as
married (N = 173, 80.1%). This was followed by those who were divorced (N = 30, 13.9%) while the remaining 4.2% were single (N = 9), 1.4% were widowed (N = 3) and .5% were separated (N = 1).

Table 3 presents the employment status of participants. Employment status was classified into three categories. The first category was composed of those who worked on a full-time basis, while the second category was composed of those who worked on a part-time basis. It can be observed that majority of the participants are working on a full-time basis (N = 214, 99.1%).

Table 3

<table>
<thead>
<tr>
<th>Employment Status</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Time</td>
<td>214</td>
<td>99.10</td>
</tr>
<tr>
<td>Part Time</td>
<td>2</td>
<td>.90</td>
</tr>
<tr>
<td>Total</td>
<td>216</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Table 4 presents the frequency and percentages of the ethnicity of participants. The participants were classified into five ethnicities. These are Native American Indian, Asian-Pacific Island, Black, Caucasian and Hispanic. Amongst these ethnicities, the majority of the participants were Caucasian (N = 195, 90.3%). There were eight Hispanic participants, six Black participants (2.8%), three Asian-Pacific Islanders (1.4%), and one Native American Indian (.5%).

Table 4
Frequency and Percentages of Participants’ Ethnicity

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prefer Not to Answer</td>
<td>3</td>
<td>1.40</td>
</tr>
<tr>
<td>Native American Indian</td>
<td>1</td>
<td>.50</td>
</tr>
<tr>
<td>Asian-Pac Island</td>
<td>3</td>
<td>1.40</td>
</tr>
<tr>
<td>Black</td>
<td>6</td>
<td>2.80</td>
</tr>
<tr>
<td>Caucasian</td>
<td>195</td>
<td>90.30</td>
</tr>
<tr>
<td>Hispanic</td>
<td>8</td>
<td>3.70</td>
</tr>
<tr>
<td>Total</td>
<td>216</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Table 5 presents the highest degree earned of participants. One participant has earned a Bachelor’s Degree (.5%). The rest of the 215 participants have earned advanced degrees (99.5%). The advanced degrees were Masters Degree, Educational

Table 5
Frequency and Percentages of Participants’ Highest Degree Earned

<table>
<thead>
<tr>
<th>Highest Degree Earned</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Applicable</td>
<td>1</td>
<td>.50</td>
</tr>
<tr>
<td>M.A./M.S.</td>
<td>176</td>
<td>81.50</td>
</tr>
<tr>
<td>Ed.S</td>
<td>18</td>
<td>8.30</td>
</tr>
<tr>
<td>DDS, JD, MD</td>
<td>1</td>
<td>.50</td>
</tr>
<tr>
<td>Ph.D, Ed.D</td>
<td>20</td>
<td>9.30</td>
</tr>
<tr>
<td>Total</td>
<td>216</td>
<td>100.00</td>
</tr>
</tbody>
</table>
Specialist Degree, DDS, JD or MD, and Doctoral Degree. Among these degrees, the majority of the participants had a Masters level degree (N = 176, 81.5%). There were 20 participants with Doctoral Degrees (9.3%), 18 with Educational Specialist Degrees (8.3%) and 1 with DDS, JD or MD (.5%).

Table 6 presents the administrative role of participants. The administrative role was classified into three categories. The first category included those who served in principal positions. The second category was those who served in assistant principal roles, while the third category involved those serving in academic dean positions. There were 107 participants who served in principal roles (49.5%), 100 participants who served in assistant principal roles (46.3%), and nine who served in academic dean roles (4.2%).

<table>
<thead>
<tr>
<th>Participants’ Role</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal</td>
<td>107</td>
<td>49.50</td>
</tr>
<tr>
<td>Assistant Principal</td>
<td>100</td>
<td>46.30</td>
</tr>
<tr>
<td>Academic Dean</td>
<td>9</td>
<td>4.20</td>
</tr>
<tr>
<td>Total</td>
<td>216</td>
<td>100.00</td>
</tr>
</tbody>
</table>

On the other hand, Table 7 presents the school level in which the participant is employed. The school level was classified into five categories. The categories were namely elementary school, middle school, high school, K-8 school and K-12 school. There were 90 participants assigned to elementary schools (41.7%), 66 assigned to high schools (30.6%), 48 assigned to middle schools (22.2%), 11 assigned to K-12 schools (5.1%), and one assigned to a K-8 school (.5%).
**Frequency and Percentages of School Level**

<table>
<thead>
<tr>
<th>School Level</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary</td>
<td>90</td>
<td>41.70</td>
</tr>
<tr>
<td>Middle</td>
<td>48</td>
<td>22.20</td>
</tr>
<tr>
<td>High</td>
<td>66</td>
<td>30.60</td>
</tr>
<tr>
<td>K-8</td>
<td>1</td>
<td>.50</td>
</tr>
<tr>
<td>K-12</td>
<td>11</td>
<td>5.10</td>
</tr>
<tr>
<td>Total</td>
<td>216</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Table 8 presents the frequency and percentages of the school location. The school location was categorized into three groups. The first group was composed of schools in rural areas. The second group was composed of schools in suburban areas, while the third group was composed of schools in urban areas. There were 89 participants from urban areas (41.2%), 66 are from suburban areas (30.6%), and 61 are from rural areas (28.2%).
Table 9 presents the frequency and percentages of the School NCLB Designation. This variable classified the school according to standardized test scores. There were five classifications considered, which were the Exemplary in Achievement, High Achieving, Adequate Achievement, Watch List, and Need of Improvement NCLB designations. There were 78 participants engaged in schools classified as adequate achievement (36.1%), 64 in watch list schools (29.6%), 43 in needs improvement schools (19.9%), 29 in high achieving schools (13.4%), and two engaged in exemplary achievement schools (.9%).

Table 9

*Frequency and Percentages of School NCLB Designation*

<table>
<thead>
<tr>
<th>School NCLB Designation</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exemplary Achievement</td>
<td>2</td>
<td>.90</td>
</tr>
<tr>
<td>High Achievement</td>
<td>29</td>
<td>13.40</td>
</tr>
<tr>
<td>Adequate Achievement</td>
<td>78</td>
<td>36.10</td>
</tr>
<tr>
<td>Watch List</td>
<td>64</td>
<td>29.60</td>
</tr>
<tr>
<td>Need Improvement</td>
<td>43</td>
<td>19.90</td>
</tr>
<tr>
<td>Total</td>
<td>216</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Table 10 presents the central tendency values of participants’ age. The youngest participant was 27 years old, while the oldest participant was 66 years old. The mean age of participants was 47.7 years old with a standard deviation of 8.51 years. Table 10

*Descriptive Statistics of Participants’ Age*

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
For comparison purposes, the raw data collected in the participant surveys was converted to percentile scores. The investigator was able to score the PSS and LPI data, but the author of the 5F-Wel required the researcher to send in the raw data so that she could score the data herself. The 5f-Wel scored data was returned to the investigator converted to percentile scores. In an effort to maintain consistency, the investigator converted the PSS and LPI date to percentile scores as well. According to Zimmerman & Zumbo (2005), using percentile scores may or may bring about a substantial gain in power, but – at the very least – their use will not lead to incorrect statistical decisions, depending on the population distribution.

Table 11 presents the descriptive statistics of the holistic wellness scores, perceived stress and the leadership scores of participants. The total holistic score had a range of 60.27 to 98.63 with a mean of 80.10 and a standard deviation of 8.22. Amongst the holistic wellness subscales, the highest mean score was observed on Social Self (Mean = 89.85, SD = 10.45) while the lowest was observed on Physical Self (Mean = 71.38, SD = 16.24). The Perceived Stress score on the other hand had a range of 5 to 92.5 with a mean of 38.02 and a standard deviation of 17.64. For the leadership scores, the highest mean score was observed on Enabling Others to Act (Mean = 87.13, SD = 9.43) while the lowest score is observed on Inspiring a Shared Vision (Mean = 78.61, SD = 15.54).

Moreover, it could also be observed in Table 11 that the leadership subscale scores are not normally distributed. Therefore, the Spearman’s Rank Correlation analyses were used.
rather than the Pearson’s correlation coefficient. The Spearman’s Rank Correlation analysis is a non-parametric test used to analyze non-normally distributed data.

### Descriptive Statistics of Holistic Wellness Scores, PSS and Leadership Scores

<table>
<thead>
<tr>
<th>Subscales</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Holistic Wellness</td>
<td>216</td>
<td>60.27</td>
<td>98.63</td>
<td>80.10</td>
<td>8.22</td>
</tr>
<tr>
<td>Essential Self</td>
<td>216</td>
<td>46.88</td>
<td>100.00</td>
<td>82.93</td>
<td>9.45</td>
</tr>
<tr>
<td>Creative Self</td>
<td>216</td>
<td>61.25</td>
<td>100.00</td>
<td>82.79</td>
<td>8.60</td>
</tr>
<tr>
<td>Physical Self</td>
<td>216</td>
<td>30.00</td>
<td>100.00</td>
<td>71.38</td>
<td>16.24</td>
</tr>
<tr>
<td>Coping Self</td>
<td>216</td>
<td>44.74</td>
<td>98.68</td>
<td>75.38</td>
<td>9.96</td>
</tr>
<tr>
<td>Social Self</td>
<td>216</td>
<td>56.25</td>
<td>100.00</td>
<td>89.85</td>
<td>10.45</td>
</tr>
<tr>
<td>PSS</td>
<td>216</td>
<td>5.00</td>
<td>92.50</td>
<td>38.02</td>
<td>17.64</td>
</tr>
<tr>
<td>Model the Way</td>
<td>216</td>
<td>28.33</td>
<td>100.00</td>
<td>82.42</td>
<td>12.22</td>
</tr>
<tr>
<td>Inspiring a Shared Vision</td>
<td>216</td>
<td>13.33</td>
<td>100.00</td>
<td>78.61</td>
<td>15.54</td>
</tr>
<tr>
<td>Challenging the Process</td>
<td>216</td>
<td>16.67</td>
<td>100.00</td>
<td>79.00</td>
<td>12.91</td>
</tr>
<tr>
<td>Enabling Others to Act</td>
<td>216</td>
<td>50.00</td>
<td>100.00</td>
<td>87.13</td>
<td>9.43</td>
</tr>
<tr>
<td>Encouraging the Heart</td>
<td>216</td>
<td>15.00</td>
<td>100.00</td>
<td>82.79</td>
<td>13.23</td>
</tr>
</tbody>
</table>

### Data Analysis

This section discusses the statistical analyses conducted to answer the research questions posed for this quantitative study. In order to determine whether there were significant relationships among holistic wellness, perceived stress, and leadership practices for K-12, public school, building-level administrators, the correlations between these variables were computed. The specific variables considered were the five holistic wellness self-report scores (Essential Self, Coping Self, Social Self, Creative Self, and
Physical Self), the perceived stress self-report scores, and the five leadership practices self-report scores (Modeling the Way, Inspiring a Shared Vision, Challenging the Process, Enabling Others to Act, and Encouraging the Heart). Table 12 presents the results of the Spearman’s correlation analyses conducted between the holistic wellness scores and the leadership scores. It can be observed that there was a significant positive correlation between the holistic wellness scores and leadership scores (p-value<.01). This implies that when the holistic wellness scores increased, the leadership scores increased as well. Thus, there was a statistically significant positive relationship between the holistic wellness scores and the leadership scores in all subscales of these measures.

Table 12

Summary of Spearman’s Rank Correlations of Holistic Wellness Scores and Leadership Scores (N = 216)

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Model the Way</th>
<th>Inspire a Shared Vision</th>
<th>Challenge the Process</th>
<th>Enable Others to Act</th>
<th>Encourage the Heart</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holistic Wellness</td>
<td>.486**</td>
<td>.437**</td>
<td>.478**</td>
<td>.425**</td>
<td>.461**</td>
</tr>
<tr>
<td>Essential Self</td>
<td>.353**</td>
<td>.301**</td>
<td>.283**</td>
<td>.302**</td>
<td>.348**</td>
</tr>
<tr>
<td>Creative Self</td>
<td>.535**</td>
<td>.463**</td>
<td>.543**</td>
<td>.494**</td>
<td>.460**</td>
</tr>
<tr>
<td>Physical Self</td>
<td>.340**</td>
<td>.348**</td>
<td>.352**</td>
<td>.277**</td>
<td>.349**</td>
</tr>
<tr>
<td>Coping Self</td>
<td>.340**</td>
<td>.349**</td>
<td>.366**</td>
<td>.298**</td>
<td>.320**</td>
</tr>
<tr>
<td>Social Self</td>
<td>.375**</td>
<td>.263**</td>
<td>.330**</td>
<td>.341**</td>
<td>.334**</td>
</tr>
</tbody>
</table>

** Significant at .01 alpha level.

Table 13 presents the correlations between the perceived stress and the holistic wellness scores. It can be observed that there was a significant negative relationship between the perceived stress level and the holistic wellness of the participants (p-value<.01). This implies that as the perceived stress scores increased, the holistic
wellness scores decreased. Likewise, as the perceived stress scores decreased, the holistic wellness scores increased.

Table 13

*Summary of Spearman’s Rank Correlations between Perceived Stress and Holistic Wellness Scores (N = 216)*

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Total Wellness</th>
<th>Essential Self</th>
<th>Creative Self</th>
<th>Physical Self</th>
<th>Coping Self</th>
<th>Social Self</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSS</td>
<td>-.481**</td>
<td>-.259**</td>
<td>-.421**</td>
<td>-.395**</td>
<td>-.548**</td>
<td>-.205**</td>
</tr>
</tbody>
</table>

Note: ** Significant at .01 alpha level, * Significant at .01 alpha level.

Table 14 on the other hand presents the correlation between the perceived stress and the leadership scores. It can be observed that there was a significant negative relationship between the perceived stress level and the leadership scores of participants.

Table 14

*Summary of Spearman’s Rank Correlation Analysis of Perceived Stress and Leadership Scores (N = 216)*

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Model the Way</th>
<th>Inspire a Shared Vision</th>
<th>Challenge the Process</th>
<th>Enable Others to Act</th>
<th>Encourage the Heart</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSS</td>
<td>-.315**</td>
<td>-.298**</td>
<td>-.277**</td>
<td>-.304**</td>
<td>-.206**</td>
</tr>
</tbody>
</table>

Note: ** Significant at .01 alpha level.

(p-value<.01). This implies that as the perceived stress scores increased, the leadership scores decreased. Likewise, as the perceived stress scores decreased, the leadership scores increased.
A multiple regression analysis was conducted with perceived stress as the dependent variable. The independent variables were holistic wellness self-report scores (Essential Self, Coping Self, Social Self, Creative Self, and Physical Self), Leadership Practices Inventory self-report scores (Modeling the Way, Inspiring a Shared Vision, Challenging the Process, Enabling Others to Act, and Encouraging the Heart) and appropriately coded demographic variables (gender, administrative role, school level, school location and school NCLB designation). Table 15 presents the R-squared value for the regression equation to predict the perceived stress. The R-value of the model indicates the multiple correlation coefficients, which represents the association between the independent variables in the model with the dependent variable. The $R^2$ value of .430 represents the percent of variation in the dependent variable that is explained by the independent variables included in the model. The ANOVA for the regression analysis is shown in Table 16. The regression model was significant in predicting the perceived stress scores. Table 17 presents the coefficients of the independent variables in the regression model. It can be observed that Coping Self ($t(15,215) = -5.615$, p-value<.01), Social Self ($t(15,215) = 3.571$, p-value<.01) and Model the Way ($t(15,215) = -2.643$, p-value<.01) subscales were the significant predictors of the Perceived Stress scores of participants. The other variables included in the model were not significant predictors.
### Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.656</td>
<td>0.430</td>
<td>0.387</td>
<td>13.81</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), AYP, ROLE, ESSENTIAL SELF, SCHOOL, GENDER, PHYSICAL SELF, LOCATION, JEOA, SOCIAL SELF, COPING SELF, JISV, JETH, CREATIVE SELF, JMTW, JCTP

Table 16

**Summary of ANOVA for Regression Analysis**

### ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>15</td>
<td>1916.91</td>
<td>10.048**</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>200</td>
<td>190.78</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>215</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: ** Significant at .01 alpha level.

Table 17

**Coefficients of Independent Variables in Regression Analysis**
<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized</th>
<th>Standardized</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Error</td>
</tr>
<tr>
<td>(Constant)</td>
<td>129.271</td>
<td>12.453</td>
</tr>
<tr>
<td>Essential Self</td>
<td>-.064</td>
<td>.124</td>
</tr>
<tr>
<td>Creative Self</td>
<td>-.384</td>
<td>.204</td>
</tr>
<tr>
<td>Physical Self</td>
<td>-.001</td>
<td>.084</td>
</tr>
<tr>
<td>Coping Self</td>
<td>-.915</td>
<td>.163</td>
</tr>
<tr>
<td>Social Self</td>
<td>.454</td>
<td>.127</td>
</tr>
<tr>
<td>Model the Way</td>
<td>-.455</td>
<td>.172</td>
</tr>
<tr>
<td>Inspiring a Shared Vision</td>
<td>.076</td>
<td>.146</td>
</tr>
<tr>
<td>Challenging the Process</td>
<td>.116</td>
<td>.178</td>
</tr>
<tr>
<td>Enabling Others to Act</td>
<td>-.234</td>
<td>.188</td>
</tr>
<tr>
<td>Encouraging the Heart</td>
<td>.251</td>
<td>.133</td>
</tr>
<tr>
<td>Gender</td>
<td>-.486</td>
<td>2.188</td>
</tr>
<tr>
<td>Role</td>
<td>-2.435</td>
<td>1.800</td>
</tr>
<tr>
<td>School Level</td>
<td>-1.534</td>
<td>.923</td>
</tr>
<tr>
<td>School Location</td>
<td>.108</td>
<td>1.322</td>
</tr>
<tr>
<td>NCLB Designation</td>
<td>.971</td>
<td>1.093</td>
</tr>
</tbody>
</table>

Note: ** Significant at .01 alpha level.
Comparison of groups

Finally, in order to determine the differences in group mean scores of holistic wellness, perceived stress, and leadership practices when respondents are grouped by the selected demographic variables (gender, administrative role, school level, school location, and school NCLB designation), a multivariate analysis of variance was conducted for each grouping. Appropriate post hoc analyses were conducted if significant differences were observed.

Because there were only two groups for gender of participants, an independent samples t-test was conducted to determine whether there were significant differences. Prior to the independent samples t-test, Levene’s test for equality of variance was conducted to determine whether it was statistically valid to assume equal variances. Amongst all the variables, equal variances could not be assumed only on the Social Self subscale. It can be observed in Table 18 that there are significant differences between male and females in Essential Self (t(2,216) = -2.795, p-value<.01), Creative Self (t(2,216) = -3.736, p-value<.01), Physical Self (t(2,216) = -1.968, p-value = .05), Social Self (t(2,216) = -4.191, p-value<.01), Model the Way (t(2,216) = -3.616, p-value<.01), Inspiring a Shared Vision (t(2,216) = -4.189, p-value<.01), Challenge the Process (t(2,216) = -4.587, p-value<.01), Enabling Others to Act (t(2,216) = -3.533, p-value<.01) and Encourage the Heart (t(2,216) = -4.754, p-value<.01). For Social Self, it could be noted that the degrees of freedom is not a whole number (df = 166.896). Because the variances for the groups in this subscale are not equal, SPSS calculates the value of the degrees of freedom to account for unequal variances; the calculated value for degrees of freedom is not a whole
number. For the Perceived Stress scores, there was no significant difference between the scores of the males and the females.

Table 18

*Independent Samples t-test between Gender Groups*

<table>
<thead>
<tr>
<th>Subscales</th>
<th>F</th>
<th>t</th>
<th>df</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Essential Self</td>
<td>1.491</td>
<td>-2.795**</td>
<td>214</td>
<td>-3.58</td>
<td>1.28</td>
</tr>
<tr>
<td>Creative Self</td>
<td>3.183</td>
<td>-3.736**</td>
<td>214</td>
<td>-4.30</td>
<td>1.15</td>
</tr>
<tr>
<td>Physical Self</td>
<td>.334</td>
<td>-1.968*</td>
<td>214</td>
<td>-4.37</td>
<td>2.22</td>
</tr>
<tr>
<td>Coping Self</td>
<td>.199</td>
<td>-.628</td>
<td>214</td>
<td>-.86</td>
<td>1.37</td>
</tr>
<tr>
<td>Social Self</td>
<td>8.452**</td>
<td>-4.191**</td>
<td>166.896</td>
<td>-6.01</td>
<td>1.43</td>
</tr>
<tr>
<td>PSS</td>
<td>.004</td>
<td>-.058</td>
<td>214</td>
<td>-.14</td>
<td>2.44</td>
</tr>
<tr>
<td>Model the Way</td>
<td>2.420</td>
<td>-3.616**</td>
<td>214</td>
<td>-5.93</td>
<td>1.64</td>
</tr>
<tr>
<td>Inspiring a Shared Vision</td>
<td>1.345</td>
<td>-4.189**</td>
<td>214</td>
<td>-8.65</td>
<td>2.06</td>
</tr>
<tr>
<td>Challenge the Process</td>
<td>.629</td>
<td>-4.587**</td>
<td>214</td>
<td>-7.81</td>
<td>1.70</td>
</tr>
<tr>
<td>Enabling Others to Act</td>
<td>5.066**</td>
<td>-3.533**</td>
<td>214</td>
<td>-4.47</td>
<td>1.27</td>
</tr>
<tr>
<td>Encourage the Heart</td>
<td>5.685**</td>
<td>-4.754**</td>
<td>214</td>
<td>-8.26</td>
<td>1.74</td>
</tr>
</tbody>
</table>

Note: ** Significant at .01 alpha level, * Significant at .05 alpha level.

Table 19 presents the descriptive statistics of group means between gender groups. The significant differences observed in the t-test for independent samples were
caused by the significantly higher scores of females in all subscales of holistic wellness, perceived stress and leadership scores. The female respondents had higher scores in all subscales than males.

Table 19

*Descriptive Statistics of Holistic Wellness, PSS and Leadership scores between Gender Groups*

<table>
<thead>
<tr>
<th>Subscales</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Essential Self</td>
<td>Male</td>
<td>91</td>
<td>80.86</td>
<td>10.09</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>125</td>
<td>84.44</td>
<td>8.68</td>
</tr>
<tr>
<td>Creative Self</td>
<td>Male</td>
<td>91</td>
<td>80.30</td>
<td>9.15</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>125</td>
<td>84.60</td>
<td>7.72</td>
</tr>
<tr>
<td>Physical Self</td>
<td>Male</td>
<td>91</td>
<td>68.85</td>
<td>15.35</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>125</td>
<td>73.22</td>
<td>16.67</td>
</tr>
<tr>
<td>Coping Self</td>
<td>Male</td>
<td>91</td>
<td>74.88</td>
<td>10.12</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>125</td>
<td>75.75</td>
<td>9.87</td>
</tr>
<tr>
<td>Social Self</td>
<td>Male</td>
<td>91</td>
<td>86.37</td>
<td>11.30</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>125</td>
<td>92.38</td>
<td>9.03</td>
</tr>
<tr>
<td>PSS</td>
<td>Male</td>
<td>91</td>
<td>37.94</td>
<td>17.74</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>125</td>
<td>38.08</td>
<td>17.64</td>
</tr>
<tr>
<td>Model the Way</td>
<td>Male</td>
<td>91</td>
<td>78.99</td>
<td>12.95</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>125</td>
<td>84.92</td>
<td>11.07</td>
</tr>
<tr>
<td>Inspiring a Shared Vision</td>
<td>Male</td>
<td>91</td>
<td>73.61</td>
<td>15.82</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>125</td>
<td>82.25</td>
<td>14.34</td>
</tr>
<tr>
<td>Challenge the Process</td>
<td>Male</td>
<td>91</td>
<td>74.49</td>
<td>13.15</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>125</td>
<td>82.29</td>
<td>11.74</td>
</tr>
<tr>
<td>Enabling Others to Act</td>
<td>Male</td>
<td>91</td>
<td>84.54</td>
<td>10.72</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>125</td>
<td>89.01</td>
<td>7.89</td>
</tr>
<tr>
<td>Encourage the Heart</td>
<td>Male</td>
<td>91</td>
<td>78.00</td>
<td>14.59</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>125</td>
<td>86.27</td>
<td>10.95</td>
</tr>
</tbody>
</table>

Because there were more than two groups for the administrative roles variable, an analysis of variance to determine differences between groups was conducted. It can be observed in Table 20 that there were significant differences between administrative role
groups in the Inspiring a Shared Vision (F(2,216) = 4.430, p-value < .05) and Challenge
the Process subscales (F(2,216) = 3.125, p-value < .05). Therefore, it was critical to
examine which among the groups had higher or lower scores as compared to the other
groups in these subscales.

Table 20

*ANOVA Comparison of Means between Administrative Role Groups*

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Essential Self</td>
<td>320.55</td>
<td>2</td>
<td>160.28</td>
<td>1.809</td>
</tr>
<tr>
<td>Creative Self</td>
<td>80.83</td>
<td>2</td>
<td>40.42</td>
<td>.545</td>
</tr>
<tr>
<td>Physical Self</td>
<td>1074.76</td>
<td>2</td>
<td>537.38</td>
<td>2.058</td>
</tr>
<tr>
<td>Coping Self</td>
<td>418.99</td>
<td>2</td>
<td>209.50</td>
<td>2.133</td>
</tr>
<tr>
<td>Social Self</td>
<td>391.02</td>
<td>2</td>
<td>195.51</td>
<td>1.802</td>
</tr>
<tr>
<td>PSS</td>
<td>1248.62</td>
<td>2</td>
<td>624.31</td>
<td>2.025</td>
</tr>
<tr>
<td>Model the Way</td>
<td>436.08</td>
<td>2</td>
<td>218.04</td>
<td>1.466</td>
</tr>
<tr>
<td>Inspiring a Shared Vision</td>
<td>2074.30</td>
<td>2</td>
<td>1037.15</td>
<td>4.430*</td>
</tr>
<tr>
<td>Challenge the Process</td>
<td>1021.86</td>
<td>2</td>
<td>510.93</td>
<td>3.125*</td>
</tr>
<tr>
<td>Enabling Others to Act</td>
<td>307.48</td>
<td>2</td>
<td>153.74</td>
<td>1.742</td>
</tr>
<tr>
<td>Encouraging the Heart</td>
<td>739.14</td>
<td>2</td>
<td>369.57</td>
<td>2.133</td>
</tr>
</tbody>
</table>

Note: * Significant at .05 alpha level.

A Tukey post hoc analysis was conducted. Table 21 presents a summary of the
post hoc analysis for the difference in means between administrative groups in the
Inspiring a Shared Vision and Challenge the Process subscales. For the Inspiring a Shared
Vision subscale, the positive mean difference between principals and assistant principals indicated a significantly higher score for principals over assistant principals in this subscale (Mean difference = 6.29, SE = 2.13). Meanwhile, for the Challenge the Process subscale, the positive mean difference between principals and assistant principals indicated a significantly higher score for principals over assistant principals in this subscale (Mean difference = 4.30, SE = 1.78). Thus, it can be observed that principals had higher scores for Inspiring a Shared Vision and Challenge the Process when compared to assistant principals.

Table 21

Tukey Post Hoc Test between Administrative Role Groups

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>(I) ROLE</th>
<th>(J) ROLE</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inspiring a Shared Vision</td>
<td>Principal</td>
<td>Assistant Principal Academic Dean</td>
<td>6.29*</td>
<td>2.13</td>
<td>1.27 11.31</td>
</tr>
<tr>
<td></td>
<td>Principal</td>
<td>Academic Dean</td>
<td>1.20</td>
<td>5.31</td>
<td>-11.33 13.74</td>
</tr>
<tr>
<td></td>
<td>Assistant Principal</td>
<td>Academic Dean</td>
<td>-5.09</td>
<td>5.33</td>
<td>-17.66 7.48</td>
</tr>
<tr>
<td>Challenge the Process</td>
<td>Principal</td>
<td>Assistant Principal Academic Dean</td>
<td>4.30*</td>
<td>1.78</td>
<td>.10 8.50</td>
</tr>
<tr>
<td></td>
<td>Principal</td>
<td>Academic Dean</td>
<td>-.70</td>
<td>4.44</td>
<td>-11.17 9.78</td>
</tr>
<tr>
<td></td>
<td>Assistant Principal</td>
<td>Academic Dean</td>
<td>-5.00</td>
<td>4.45</td>
<td>-15.50 5.50</td>
</tr>
</tbody>
</table>

*Significant Difference at .05 alpha level.

Analyses of variance were conducted to determine differences between school grade level groups. The case which had a school grade level of K-8 was taken out because there was only one participant in this category. It can be observed in Table 22...
that there were significant differences between groups in the Creative Self ($F(3,215) = 3.121, p\text{-value}<.05$), Model the Way ($F(3,215) = 4.190, p\text{-value}<.01$), Inspiring a Shared Vision ($F(3,215) = 5.472, p\text{-value}<.01$), Challenge the Process ($F(3,215) = 6.124, p\text{-value}<.01$), Enabling Others to Act ($F(3,215) = 5.184, p\text{-value}<.01$), and Encouraging the Heart ($F(3,215) = 4.384, p\text{-value}<.01$) subscales.

Table 22

*Summary of ANOVA Comparison of Means between School Level Groups*

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Essential Self</td>
<td>475.45</td>
<td>3</td>
<td>158.48</td>
<td>1.793</td>
</tr>
<tr>
<td>Creative Self</td>
<td>673.91</td>
<td>3</td>
<td>224.64</td>
<td>3.121*</td>
</tr>
<tr>
<td>Physical Self</td>
<td>1443.49</td>
<td>3</td>
<td>481.16</td>
<td>1.838</td>
</tr>
<tr>
<td>Coping Self</td>
<td>822.01</td>
<td>3</td>
<td>274.00</td>
<td>2.828*</td>
</tr>
<tr>
<td>Social Self</td>
<td>283.13</td>
<td>3</td>
<td>94.38</td>
<td>.862</td>
</tr>
<tr>
<td>PSS</td>
<td>888.65</td>
<td>3</td>
<td>296.22</td>
<td>.956</td>
</tr>
<tr>
<td>Model the Way</td>
<td>1804.36</td>
<td>3</td>
<td>601.45</td>
<td>4.190</td>
</tr>
<tr>
<td>Inspiring a Shared Vision</td>
<td>3749.11</td>
<td>3</td>
<td>1249.70</td>
<td>5.472**</td>
</tr>
<tr>
<td>Challenge the Process</td>
<td>2865.17</td>
<td>3</td>
<td>955.06</td>
<td>6.124**</td>
</tr>
<tr>
<td>Enabling Others to Act</td>
<td>1305.14</td>
<td>3</td>
<td>435.05</td>
<td>5.184**</td>
</tr>
<tr>
<td>Encouraging the Heart</td>
<td>2201.31</td>
<td>3</td>
<td>733.77</td>
<td>4.384**</td>
</tr>
</tbody>
</table>

Note: * Significant at .05 alpha level, ** Significant at .01 alpha level.

Table 23 presents the mean differences between the school level groups. For Creative Self, it can be observed that participants from elementary schools had significantly higher scores than participants from high schools (Mean difference = 4.10,
SE = 1.37). For the Model the Way subscale, participants from elementary schools (Mean difference = 6.38, SE = 1.94) and from middle schools (Mean difference = 6.24, SE = 2.27) had significantly higher scores than participants from high schools. For Inspiring a Shared Vision, participants from elementary schools had significantly higher scores than participants from high schools (Mean difference = 9.75, SE = 2.45). For the Challenge the Process subscale, participants from elementary schools (Mean difference = 8.40, SE = 2.02) and from middle schools (Mean difference = 6.22, SE = 2.37) had significantly higher scores than participants from high schools.

Table 23

*Summary of Tukey Post Hoc Test between School Level Groups*

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>(I) SCHOOL</th>
<th>(J) SCHOOL</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creative Self</td>
<td>Elementary</td>
<td>High</td>
<td>4.10*</td>
<td>1.37</td>
<td>.54</td>
<td>7.66</td>
</tr>
<tr>
<td>Model the Way</td>
<td>Elementary</td>
<td>High</td>
<td>6.38*</td>
<td>1.94</td>
<td>1.35</td>
<td>11.40</td>
</tr>
<tr>
<td></td>
<td>Middle</td>
<td>High</td>
<td>6.24*</td>
<td>2.27</td>
<td>.35</td>
<td>12.12</td>
</tr>
<tr>
<td>Inspiring a Shared Vision</td>
<td>Elementary</td>
<td>High</td>
<td>9.75*</td>
<td>2.45</td>
<td>3.41</td>
<td>16.09</td>
</tr>
<tr>
<td>Challenge the Process</td>
<td>Elementary</td>
<td>High</td>
<td>8.40*</td>
<td>2.02</td>
<td>3.16</td>
<td>13.64</td>
</tr>
<tr>
<td>Enabling Others to act</td>
<td>Elementary</td>
<td>High</td>
<td>5.39*</td>
<td>1.48</td>
<td>1.54</td>
<td>9.23</td>
</tr>
<tr>
<td>Encouraging the Heart</td>
<td>Middle</td>
<td>High</td>
<td>4.92*</td>
<td>1.74</td>
<td>.42</td>
<td>9.42</td>
</tr>
<tr>
<td></td>
<td>Elementary</td>
<td>High</td>
<td>7.15*</td>
<td>2.10</td>
<td>1.72</td>
<td>12.58</td>
</tr>
</tbody>
</table>
Note: * Significant at .05 alpha level, ** Significant at .01 alpha level. Higher scores than participants from high schools. For the Enabling Others to Act subscale, participants from elementary schools (Mean difference = 5.39, SE = 1.48) and from middle schools (Mean difference = 4.92, SE = 1.74) had significantly higher scores than participants from high schools. For the Encouraging the Heart subscale, participants from elementary schools had significantly higher scores than participants from high schools (Mean difference = 7.15, SE = 2.10).

Analyses of variance were conducted to determine differences between school location groups. Table 24 provides a summary of the results for the ANOVA analysis.

Table 24

*Summary of ANOVA for Comparison of Means between School Location Groups*

<table>
<thead>
<tr>
<th>Subscales</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Essential Self</td>
<td>143.58</td>
<td>2</td>
<td>71.79</td>
</tr>
<tr>
<td>Creative Self</td>
<td>21.42</td>
<td>2</td>
<td>10.71</td>
</tr>
<tr>
<td>Physical Self</td>
<td>476.78</td>
<td>2</td>
<td>238.39</td>
</tr>
<tr>
<td>Coping Self</td>
<td>417.64</td>
<td>2</td>
<td>208.82</td>
</tr>
<tr>
<td>Social Self</td>
<td>143.20</td>
<td>2</td>
<td>71.60</td>
</tr>
<tr>
<td>PSS</td>
<td>354.95</td>
<td>2</td>
<td>177.48</td>
</tr>
<tr>
<td>Model the Way</td>
<td>756.12</td>
<td>2</td>
<td>378.06</td>
</tr>
<tr>
<td>Inspiring a Shared Vision</td>
<td>1215.44</td>
<td>2</td>
<td>607.72</td>
</tr>
<tr>
<td>Challenge the Process</td>
<td>812.93</td>
<td>2</td>
<td>406.47</td>
</tr>
<tr>
<td>Enabling Others to Act</td>
<td>626.96</td>
<td>2</td>
<td>313.48</td>
</tr>
</tbody>
</table>
Table 24 reveals that there was a significant difference between groups in only one subscale, which was the Enabling Others to Act subscale (F(2,216) = 3.614, p-value<.05). In the post hoc analysis presented in Table 25, it can be observed that the suburban group had a significantly lower mean score in this subscale as compared to those participants whose schools were in urban areas (Mean difference = -3.98, SE = 1.51).

Table 25

**Summary of Tukey Post Hoc Test between School Location Groups**

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>(I) LOCATION</th>
<th>(J) LOCATION</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>95% Confidence Interval Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enabling Others to Act</td>
<td>Suburban</td>
<td>Urban</td>
<td>-3.98*</td>
<td>1.51</td>
<td>.025</td>
<td>-7.55</td>
<td>-.40</td>
</tr>
</tbody>
</table>

Note: * Significant at .05 alpha level, ** Significant at .01 alpha level.

Analyses of variance were conducted to determine differences between school NCLB designation groups. It can be observed in Table 26 that there was a significant difference between groups on the Essential Self subscale (F(2,216) = 3.614, p-value<.05) and on the Perceived Stress scores. In the post hoc analysis summarized in Table 27, it can be observed that for the Essential Self subscale, the participants in schools classified as high achieving had higher scores than participants in schools with adequate achievement (Mean difference = 5.80, SE = 2.03). As for the Perceived Stress scores, it
can be observed that participants in high achieving schools had lower stress levels than those in the watch list schools (Mean difference = -12.06, SE = 3.87).

Table 26

*ANOVA Comparison of Means between School NCLB Designation Groups*

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Essential Self</td>
<td>888.78</td>
<td>4</td>
<td>222.20</td>
<td>2.562*</td>
</tr>
<tr>
<td>Creative Self</td>
<td>416.25</td>
<td>4</td>
<td>104.06</td>
<td>1.419</td>
</tr>
<tr>
<td>Physical Self</td>
<td>2387.48</td>
<td>4</td>
<td>596.87</td>
<td>2.319</td>
</tr>
<tr>
<td>Coping Self</td>
<td>492.31</td>
<td>4</td>
<td>123.08</td>
<td>1.246</td>
</tr>
<tr>
<td>Social Self</td>
<td>524.22</td>
<td>4</td>
<td>131.06</td>
<td>1.204</td>
</tr>
<tr>
<td>PSS</td>
<td>3728.86</td>
<td>4</td>
<td>932.21</td>
<td>3.113*</td>
</tr>
<tr>
<td>Model the Way</td>
<td>1171.94</td>
<td>4</td>
<td>292.99</td>
<td>1.997</td>
</tr>
<tr>
<td>Inspiring a Shared Vision</td>
<td>1050.51</td>
<td>4</td>
<td>262.63</td>
<td>1.089</td>
</tr>
<tr>
<td>Challenge the Process</td>
<td>1033.39</td>
<td>4</td>
<td>258.35</td>
<td>1.566</td>
</tr>
<tr>
<td>Enabling Others to Act</td>
<td>444.76</td>
<td>4</td>
<td>111.19</td>
<td>1.257</td>
</tr>
<tr>
<td>Encouraging the Heart</td>
<td>860.18</td>
<td>4</td>
<td>215.05</td>
<td>1.234</td>
</tr>
</tbody>
</table>

Note: * Significant at .05 alpha level, ** Significant at .01 alpha level.

Table 27

*Tukey Post Hoc Test between School NCLB Designation Groups*

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>(I) AYP</th>
<th>(J) AYP</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower Bound Upper Bound</td>
</tr>
</tbody>
</table>


Summary of Findings

This quantitative analysis indicated that significant positive correlations existed between the holistic wellness scores and leadership scores of K-12, public school, building-level administrators. Meanwhile, there were significant negative correlations between the perceived stress scores and the holistic wellness scores as well as with the leadership scores. The multiple regression analysis indicated that Coping Self, Social Self and Model the Way subscales were the significant predictors of the perceived stress scores of participants. Finally, the analyses of variance indicated that significant differences existed in the group mean scores of holistic wellness, perceived stress, and leadership practices when respondents were grouped by the selected demographic variables (gender, administrative role, school level, school location, and school NCLB designation). These findings will be discussed in chapter 5.
CHAPTER 5

Discussion and Conclusions

The roles of school building-level administrators have become more varied, conflict-laden, and demanding (Cranston, 2007). They encounter a great deal of stress and work very long hours (DiPaola & Tschannen-Moran, 2003). The present quantitative study considered the perceived stress, holistic wellness, and leadership practices of K-12, public school, building-level administrators. The Five Factor Wellness Inventory (5F-Wel; Hattie, Myers, & Sweeney, 2004), the Perceived Stress Scale (PSS; Cohen & Williamson, 1988), and the Leadership Practices Inventory (LPI; Kouzes & Posner, 2003) were administered to 216 K-12 building-level administrators from one western state. Spearman rank correlations were computed to determine the relationships between leadership practices, holistic wellness, and perceived stress. Multiple regressions were computed to determine the predictive value of leadership practices and holistic wellness in regard to perceived stress. In addition, MANOVAs were conducted to determine group differences in holistic wellness, leadership practices, and perceived stress across demographic variables (gender, administrative role, school level, school location, and school NCLB designation).

The results indicated that all the holistic wellness variables were correlated with all measures of the leadership practices. All of the holistic wellness variables and leadership practices variables were inversely correlated with perceived stress. Coping Self as a factor of holistic wellness was a predictor of perceived stress. Model the Way as
a leadership practice was also a significant predictor of lower perceived stress levels.

Social Self as a factor of holistic wellness was a significant predictor of perceived stress. Significant group differences were evinced in the holistic wellness, leadership practices, and perceived stress variables.

These findings are synthesized and interpreted in the succeeding sections. The discussion of findings is presented in the next section, followed by the practical implications, limitations, and then directions for future research. The chapter culminates in a set of conclusions that characterize the findings of the present study. The discussion section is organized according to the research questions.

Discussion

R1: What are the relationships among holistic wellness, perceived stress, and leadership practices for K-12, public school, building-level administrators?

The relationships among the five holistic wellness factors (Coping Self, Creative Self, Essential Self, Physical Self, Social Self), the five leadership practices (Challenge the Process, Enabling Others to Act, Encourage the Heart, Inspire Shared Vision, Model the Way), and perceived stress level were ascertained using Spearman rank correlations. The findings indicated that all of the wellness factors were correlated with all of the leadership practices. While each of the wellness factors correlated moderately with leadership practices, the composite wellness variable correlates strongly with all the leadership practices measures. The leadership practices of the high school building-level administrators in the sample were correlated strongly with total wellness and creative self. These factors in particular are present among building-level administrators that engage in effective leadership practices. The role of total wellness indicates that wellness
in general is associated with leadership practices among building-level administrators. In this way, each individual wellness factor may be independently yet simultaneously relevant to leadership practices.

The association between the Creative Self wellness factor and leadership practices in the sample is particularly notable. One interpretation is that building-level administrators who engage in leadership practices to a greater extent have more Creative Self wellness, such that the creativity may contribute to the engagement in leadership practices. The findings in the present study are correlational, and thus any causal inferences are only based on theoretical underpinnings rather than experimental data. Further research can confirm or rebut the role of creativity in leadership practices in building-level administrators. Nevertheless, a link between creative wellness and leadership practices among building-level administrators is apparent in the present findings.

Both total wellness and the Creative Self wellness factor are most strongly associated to three particular leadership practices: Model the Way, Challenge the Process, and Enabling Others to Act. While correlations to total wellness and Creative Self wellness are strong for all leadership practices, they are highest for Model the Way, Challenge the Process, and Enabling Others to Act. Explaining the link between the Model the Way leadership practice and total wellness is simple in that a building-level administrator with greater wellness would be better able to set a good example for staff and students alike. Greater creative wellness may also facilitate the Challenge the Process leadership practice because creative wellness is associated with greater risk taking and innovation. Furthermore, a building-level administrator with greater total wellness may
be best able to provide the structure necessary for the Enabling Others to Act leadership practice. The Inspire a Shared Vision and Encourage the Heart leadership practices may not be as strongly affiliated with total wellness and creative wellness because these may be better established through school policies and customs rather than specific building-level administrator behaviors. These are merely working hypotheses that attempt to explain the discrepancy in magnitude in the correlational findings. Further research will be necessary to ascertain the veracity of these propositions.

Perceived stress was negatively correlated with each of the holistic wellness factors, though the magnitude of the correlations varied across holistic wellness factors. Nevertheless, these findings confirm the hypotheses posited at the outset of the study. Greater wellness is linked with lower levels of perceived stress. In particular, total wellness, coping self, creative self, and physical self were correlated with lower perceived stress among the building-level administrators in the sample. These correlations were at a moderate to high magnitude. This general finding is linked to other research that has related stress to measures of wellness (Cohen & Williamson, 1988; Karren et al., 2002; Padus, 1990).

The role of coping in perceived stress has been established in the literature (Cohen & Williamson, 1988) and is thus an expected finding. The association between creative wellness and perceived stress echoes the previous findings on holistic wellness and leadership practices. The specific role of creativity in perceived stress may not be immediately apparent. Further research may reveal the mechanism of the relationship between creativity and stress in the sample. The correlation between physical self wellness and stress has also been explored in the review of literature. Indeed, better
physical health has continually been linked with reduced perceptions of stress (Karren et al., 2002; Padus, 1990). These results are replicated in the present findings.

Notably, the Essential Self and Social Self wellness factors are only weakly correlated with perceived stress levels in the sample, though the valence of the correlation is still negative. This means that there is an inverse relationship between Essential Self wellness and perceived stress, as well as between Social Self wellness and perceived stress. These findings indicate that the role of Essential Self and Social Self wellness in perceived stress in the sample may be minimal and weak relative to the other wellness factors. Identity, spirituality, and self-care may not be strongly linked to reduced perceptions of stress among the building-level administrators in the sample despite findings in the literature that point to the contrary (Ivey et al., 2005). Similarly, love and friendship may not also be linked with reduced perceived stress in the sample. Further research will be necessary to determine why these factors are more weakly linked to perceived stress among building-level administrators.

The last set of correlations conducted were between the leadership practices and perceived stress among building-level administrators in the sample. The findings indicated significant negative correlations between all of the leadership practices and perceived stress among building-level administrators. While any causal implications may only be motivated by theoretical expectations and experimental research will be necessary to affirm the presence of a causal relationship, better leadership practices appear to play a role in reducing stress levels among building-level administrators in the sample. In particular, the Model the Way and Enabling Others to Act leadership practices were moderately inversely correlated with perceived stress, while the Inspire Shared
Vision, Encourage the Heart, and Challenge the Process leadership practices were weakly inversely correlated with perceived stress.

The relative greater role of Model the Way and Enabling Others to Act leadership in perceived stress cannot be readily explained based on the findings. It may be conjectured that Model the Way and Enabling Others to Act are particularly effective leadership practices that lead to student, staff, and institutional outcomes that, in turn, reduce the stress levels of the building-level administrators in the sample. This finding is buttressed by the group difference results evinced across AYP levels presented in the succeeding sections. An alternative explanation would be that building-level administrators with lower stress levels are simply more likely to carry out Model the Way leadership and Enabling Others to Act leadership practices (Eckman, 2006). Empirical investigation may be able to provide differential evidence for either of these competing working hypotheses.

R2: To what extent can variance in perceived stress of K-12, public school, building-level administrators be accounted for by holistic wellness and leadership practices?

In order to determine the predictive power of holistic wellness and leadership practices toward perceived stress among building-level administrators in the sample, a multiple regression analysis was conducted to determine the set of factors that best predicts perceived stress in the sample. Based on the adjusted R-square of the regression model, a substantial amount of variance in perceived stress was predicted by the variables in the resulting regression model. Specifically, nearly 39% percent of variance in perceived stress among building-level administrators were predicted by the variables in
the regression model. The results suggest that three variables were significant predictors (Coping Self, Social Self, and Modeling the Way) of perceived stress.

The results of this study indicated that Coping Self is one of the significant predictors of the perceived stress as indicated on the perceived stress scores of the participants. Previous studies have found that the Coping Self wellness factor was related to stress (Adams, 1999; Metzger, 2003). Although Coping Self encompasses the elements that regulate the responses to life events providing means for transcending their negative effects (Ivey et al., 2005; Myers & Sweeney, 2004), much emphasis is given to its association with locus of control particularly internal locus of control. A locus of control orientation is a belief pertaining to the individual’s perception about the underpinning causes of events in his/her life (Neill, 2006), which is based whether the outcomes of the individuals’ actions are dependent on what they do (internal locus of control) or on events outside their personal control (external locus of control) (Zimbardo, 1985).

In specificity, the Coping Self wellness factor is directly associated with internal locus of control since individuals with internal locus of control feel that they have choice in their lives and control over their circumstances (Myers, 2007); thus, they believe their actions, thoughts and attitude usually control their destiny (Pawlik- Kienlen, 2007). While external locus of control deals primarily on the person’s reliance to external events, an internal locus of control orientation allows the individual to feel happier, freer, and less stressful. People with a more internal locus of control also enjoy better health more likely because they experience less of the damaging chronic stress that can come from feeling powerless and are more satisfied with life in general (Myers, 2007).
Individuals with a more internal locus of control entail good problem-focused coping skills, of which they can also do something constructive and appraise the situation as less threatening (Lauer, de Man, Marquez, & Ades, 2008). In view of these perspectives, Coping Self would not only enable the individual to cope with life’s challenges but would also surpass the more intricate necessities of life (Ivey et al., 2005; Myers & Sweeney, 2004) as strengthened with the concept of internal locus of control.

Another significant predictor of perceived stress was the Model the Way leadership practice. Model the Way is negatively correlated with perceived stress. However, while the nature of the role of Model the Way leadership in perceived stress and vice versa is not immediately apparent, the link between higher Model the Way leadership and lower perceived stress is clear in the regression model. As such, this would evidently lead to the individual’s resiliency to maintain and renew; this is particularly important when stressors are present, especially if the person is challenged or threatened (Neill, 2006). As resiliency refers to the individual’s capability to withstand stressors, Model the Way motivates leaders to ascertain principles concerning the way their colleagues should be treated and the way goals should be pursued. Thus, the concept of resiliency, which has something to do with the person’s amount of mental strength including good health, sense of purpose, ability to contribute socially, patience, empathy, trust, foresight and high emotional intelligence (Le Page, 2010) explains how the Model the Way leadership factor influenced the perceived stress of the participants.

Curiously, the Social Self wellness factor was a positive predictor of perceived stress, such that higher levels of social self wellness predicted higher levels of perceived stress in the building-level administrators in the sample. This finding is highly
counterintuitive in that a factor of holistic wellness in this case predicts higher levels of stress rather than lower levels of stress. One explanation for this finding is that time (whether leisure time or work time) may mediate the relationship between social self-wellness and perceived stress as hinted at by previous research (Cushing, Kerrins, & Johnstone, 2004). Building-level administrators with greater social wellness may have less time for leisure and/or work and may thus experience more perceived stress. In contrast, building-level administrators with less social wellness may have more time for leisure and/or work and may experience less perceived stress as a result. This is an interpretation of the findings that is empirically testable. This may be a highly fruitful tack of further research.

Giving social support is an important component of interpersonal relationships among individuals that provides considerable value to health and well-being (Brown, Nesse, Vinokur, & Smith, 2003). It is in this context that providing social support to individuals would lead to greater overall well-being, as it enhances their self-esteem (Liang, Krause, & Benett, 2001). However, an alternative explanation for the direct link between perceived stress and social wellness may be role strain (Borg & Riding; 1993; Frick & Fraas, 1990) as a result of greater social interaction. Some studies (Cohen & Wills, 1985; Hamarat & Steele, 2002; Rees & Freeman, 2007) revealed that social support creates a stress-buffering effect, of which stress-buffering mechanisms of social support could interfere between the stressful event and a stress reaction by attenuating or preventing a stress response (Cohen & Wills, 1985). In view of these perspectives, the roles of friendship and love may conflict with the administrative and organizational roles played by the building-level administrators in the sample. Since the participants in this
study are successful, active school administrators, they had already time to adjust to the socially isolating nature of their positions. As the presence of social support significantly calculates the individuals’ capacity to cope with stress (Clark, 2005), high demands and low social support within the workforce tend to cause the development of depressive symptoms among workers over a period of time (Dormann & Zapf, 1999). However, it is more likely that one of the reasons for their success and longevity in school administration is explained by a lack of need for social support. Although many studies have revealed that anyone who has high social support tends to have less chance of getting depression and anxiety disorders, further research may be necessary to ascertain this working hypothesis (Uchino, Cacioppo, & Kiecolt-Glaser, 1996). Nevertheless, it is apparent that greater social wellness is connected to greater levels of perceived stress among building-level administrators in the sample an unexpected and counterintuitive finding in the data.

R3: What are the differences in group mean scores of holistic wellness, perceived stress, and leadership practices when respondents are grouped by the selected demographic variables (gender, administrative role, school level, school location, and school NCLB designation)?

Group differences in holistic wellness factors, perceived stress, and leadership practices were ascertained using MANOVAs conducted across five demographic variables.

In particular, Essential Self, Creative Self, Physical Self, and Social Self were higher among female participants than among male participants. These group differences
may reflect differences in gender roles and expectations that affect the wellness of the building-level administrators in the sample.

The female building-level administrators scored significantly higher in all of the leadership practices subscales than the male building-level administrators. These findings may indicate that leadership practices are more evident among the female building-level administrators than the male building-level administrators. Despite these group differences, perceived stress did not vary significantly across gender. These findings provide evidence for a possible gender-moderated model of perceived stress among building-level administrators, which is a finding parallel with previous research (Evetts, 1994; Eckman, 2004; Fennell, 1999; Hall, 1996; Oplatka & Atias, 2007; 1995; Regan & Brooks, 1995).

Group differences across administrative role were only evinced for Inspire a Shared Vision and Challenge the Process. These variables were higher among principals than among assistant principals. An interpretation could be that principals have more exposure, influence, and understanding of progress and outcomes of the school; therefore, they believe that they are better able to determine a shared vision and challenge the process. Furthermore, principals have more freedom than assistant principals to innovate, take risks, and generally challenge the process. Notably, perceived stress levels did not vary significantly across administrative role. Despite the differences in responsibilities across principals, assistant principals, and academic deans, participants in each of the three administrative roles perceived the same stress levels; this finding contradicts previous research in the area (Lindle, 2004; Pounder & Crowe, 2005).
The group differences across school level were observed mostly in terms of leadership practices, though Creative Self wellness was significantly higher among elementary school building-level administrators than among high school building-level administrators. Furthermore, each of the leadership practices was significantly higher among elementary school building-level administrators than among high school building-level administrators. This finding applies to Model the Way, Inspire Shared Vision, Challenge the Process, Enabling Others to Act, and Encourage the Heart leadership practices. This consistent and intriguing set of findings is underscored by the lack of group differences in perceived stress across school level. The results indicate that elementary school building-level administrators had higher frequencies of all leadership practices than high school building-level administrators despite having equivalent levels of perceived stress. These findings have precedent in the corpus of research (Pounder & Crow, 2005; Forsyth & Smith, 2002; Pounder, Galvin, & Shephard, 2003). These results certainly merit further investigation.

Group differences across school location only evinced one significant difference: Enabling Others to Act leadership practice. The findings indicated that Enabling Others to Act leadership was significantly more frequent among building-level administrators in urban schools than building-level administrators in suburban schools. There is no apparent reason why urban schools would foster higher frequencies of Enabling Others to Act leadership practices in particular compared to suburban schools. Lastly, group differences across school AYP level were predictably apparent in perceived stress. In particular, building-level administrators of schools with AYP Watch level designations had substantially higher levels of stress than building-level administrators of schools with
AYP High level designations. One interpretation may be that building-level administrators in schools with AYP Watch level designations are under the most scrutiny, which in turn contributes to higher levels of perceived stress (Dierksen, 2005; Ferrandino, 2001; Redfox, 2005; Cusick, 2003). Similarly, building-level administrator in schools with AYP High level designations had significantly higher levels of essential self than building-level administrators in schools with only AYP Adequate level designations. It is possible that essential self wellness is most difficult to cultivate and may thus be most easily done by building-level administrators in schools with High AYP designations because of their reduced perceived stress levels.

**Practical Implications**

Based on the findings, there are a number of factors that are clearly linked with higher and lower stress levels among building-level administrators. Admittedly, the findings obtained are only correlational and not causal. Nevertheless, implementing changes in some of the factors addressed in the present study may lead to reduction in the stress levels of building-level administrators. Most of the holistic wellness factors are positively linked to lower perceived stress levels. There were strong correlations for creative self and coping self; the exception was social self. In this way, the school board may provide interventions and programs targeted to improve coping and creativity among building-level administrators, emphasizing their internal locus of control in order to reduce their perceived stress levels. Important considerations should also be pondered to include professional development programs that emphasize the impact of social support in reducing perceived stress. Furthermore, the Model the Way leadership practice is associated with lower levels of perceived stress. While the direction of the relationship is
not clear, there is no apparent harm in engaging in more frequent Model the Way leadership practices since this may result in reduced perceived stress levels among building-level administrators. As such, it is imperative to inculcate development interventions highlighting resiliency as it influences the coping capacity of individuals to resist stressors. The building-level administrators in the population may also focus on improving their school’s AYP designation in order to potentially reduce their perceived stress levels.

The correlation and regression findings converge upon differential magnitudes in the relationships of holistic wellness and leadership practices with perceived stress among principals. In particular, holistic wellness factors (especially Coping Self) may contribute to less perceived stress to a greater degree than leadership practices. This is further evidence in favor of the consideration of relatively inexpensive programs and interventions to increase certain holistic wellness factors among building-level administrators (Falker, 1987).

Model the Way and Enabling Others to Act were important variables for the sample in this study. One implication is that Model the Way and Enabling Others to Act leadership practices are perceived to be associated with desirable outcomes for this study group. Alternatively, principals with lower stress levels may be better equipped to engage in Model the Way and Enabling Others to Act leadership practices, possibly because these practices are more difficult and demanding for building-level administrators. Either or both of these working hypotheses may explain why the Model the Way and Enabling Others to Act leadership practices are so closely linked with holistic wellness and perceived stress in the sample.
Limitations

One of the major limitations of the present study is that data was gathered using self-report questionnaires. Participants may not have been fully forthcoming about their perceived stress levels, holistic wellness, and leadership practices. They may have misrepresented themselves in their responses on the survey. This is a limitation inherent to the self-report design of the present study.

The sample of the present study was gathered from building-level administrators in only one U.S. state. Thus, these findings may not be generalizable to building-level administrators from other U.S. states or other countries. Furthermore, these findings may not be generalizable to educational leaders at the central office or district levels. Further research would be necessary to extend the external validity of the present findings.

The nature of correlation studies suggest directional relationships; however, they cannot have causal interpretations. Any causal interpretations put forth in the study are motivated by theoretical and logical prescriptions regarding the variables of the study. In this way, these interpretations are only considered working hypotheses presented for future scholarly scrutiny as explanations for the findings obtained in the present study.

Recommendations for Further Study

A number of recommendations for further study have been already put forth over the span of the recommendations. One important recommendation for further study would be to explore the potential role of student, staff, and institutional outcomes as moderators of the relationship between leadership practices and perceived stress levels. In this way, the direction of the relationship between leadership practices and perceived stress levels may be ascertained. Ideally, this may be investigated in an experimental
study whereby an intervention to increase levels of particular leadership practice may
provide crucial causal evidence. A longitudinal study of this sort would also provide
important findings on the changes in leadership practices and perceived stress levels over
time such that a delayed versus an immediate effect can be ascertained. There is
considerable richness and potential in this direction of future research.

One finding that has been apparent over the span of the findings is the crucial role
of creative self wellness in leadership practices and perceived stress. The specific
contribution of creativity among building-level administrators to these phenomena and
outcomes can be addressed in further research. The roles assumed by building-level
administrators are not typically considered creative roles and are even less so since the
advent of the No Child Left Behind legislation, yet creativity appears to play an apparent
role in the responsibilities of the building-level administrators in the sample. The unusual
findings on creativity and perceived stress merits more investigation. The findings from
that future study would determine whether interventions and programs to increase
creativity would result in more frequent leadership practices and reduced perceived stress
among building-level administrators.

One notable finding in the present study is the gender difference in most of the
holistic wellness factors and all of the leadership practices despite no significant
difference in perceived stress across gender. In this way, it is possible that certain
variables exert a gender-differential effect upon perceived stress among building-level
administrators. There is certainly consistent evidence for a gendered model of perceived
stress among building-level administrators, such that gender may moderate the
relationship between leadership practices and perceived stress and between holistic
wellness and perceived stress. These hypotheses can be tested in strategic empirical investigations.

Another notable finding is that elementary school, building-level administrators had significantly greater frequencies in all leadership practices than high school building-level administrators despite no significant differences in perceived stress across school level of building-level administrator. The consistent nature of the findings provides reason to believe that there must be an element that is peculiar to elementary school building-level administrators. This may represent greater expectations for certain leadership practices among elementary school, building-level administrators or, alternatively, greater ability to engage in certain leadership practices among elementary school building-level administrators. These are two of potentially several alternative interpretations of these findings. Further research may provide confirmatory evidence for one or more of these alternative interpretations in order to ascertain why elementary school, building-level administrators have higher levels of leadership practices.

Since the correlational findings do not provide evidence for directions of causality among the variables of interest, qualitative research may be useful to determine the pathways of effect among the variables. If the qualitative findings converge with the findings from this study, the epistemological foundations for the directions of causality proposed among certain pairs of variables in the present findings will be substantially buttressed.

Another potential role for qualitative research would be to explore and identify other factors that may contribute to perceived stress among building-level administrators. The need for identifying other factors is apparent in that more than 60% of variability in
perceived stress among building-level administrators in the sample was not predicted by the holistic wellness and leadership practices in the regression model. Furthermore, the constant in the regression model was still the best predictor of perceived stress. These statistics confirm that other variables may also play a significant role in predicting perceived stress among building-level administrators. Qualitative investigation may reveal what these previous unexplored factors are.

Conclusions

The present study considered possible relationships among leadership practices, holistic wellness, and perceived stress for building-level administrators.

The results indicated that the holistic wellness variables were correlated with the leadership practices. Total wellness and creative self wellness were strongly correlated with leadership practices. The holistic wellness variables and leadership practices were inversely correlated with perceived stress. Particularly, Model the Way, Enabling Others to Act, Creative Self, Physical Self, Coping Self, and Total Wellness were negatively correlated with perceived stress. The Coping Self, Social Self, and Model the Way were significant predictors of perceived stress. Females evinced higher levels for most holistic wellness factors and leadership practices than males; however, there were not gender differences in perceived stress. Principals had greater frequencies of the Inspire a Shared Vision and Challenge the Process than assistant principals; however, urban, building-level administrators had greater frequencies of the Enabling Others to Act than suburban, building-level, administrators. The Creative Self and nearly all leadership practices were greater among elementary school, building-level administrators than among high school, building-level, administrators. The Essential Self was higher among building-level
administrators in schools with High AYP designations than those in schools with Adequate AYP designations. Similarly, perceived stress was higher among building-level administrators in schools with Watch List AYP designations than their counterparts in schools with High AYP designations. The findings in general confirm the hypotheses that holistic wellness and leadership practices are correlated with reduced perceived stress among the building-level school administrators in the sample.
REFERENCES


Hamarat, E. & Steele, D. (2002). Coping resource availability and level of perceived
stress as predictors of life satisfaction in a cohort of Turkish college students--
statistical data included. *College Student Journal, 36*, 129-141.

Theory, assessment, analysis, and practice. *Journal of Counseling and
Development, 82*, 354-364.

longevity and self-efficacy of elementary principals in Sacramento County.
Unpublished doctoral dissertation, University of Southern California.

Promotion and Maintenance, 3*(1), 77-95.

Values: Achieving High Level Wellness, 8*(4), 13-17.

care management*. East Lansing, MI: Michigan State University.

Hinkle, J. S., Tuckman, B. W., & Sampson, J. P. (1993). The psychology, physiology,
and creativity of middle school aerobic exercisers. *Elementary School Guidance
and Counseling, 28*, 133-145.


approaches to the prediction of turnover. *Journal of Applied Psychology, 64*, 280-290.


Indiana Association of School Principals. (1999). *The state of the principalship in Indiana as perceived by principals, aspiring principals, and superintendents*. A report prepared in conjunction with Ball State University.


*Journal of Psychosomatic Research, 34*(6), 629-636.


the statistical analysis of test data? *Educational and Psychological Measurement*,
65, 616-638.
APPENDIX A

Permission to Use Instruments
September 21, 2010

Bill Thornton, PhD
Chair, Department of Educational Leadership
College of Education
William Raggio Building, Rm 4052
University of Nevada, Reno | Mail Stop 0283
Reno, Nevada 89557-0283

Dear Dr. Thornton,

Please be advised that Walter H. Coulter had been given permission to use the 10-item PSS for his dissertation research on the perceived stress, holistic wellness, and leadership practices of school administrators.

Sincerely,

[Signature]

Sheldon Cohen, PhD
September 13, 2010

Bill Thornton, PhD
Chair, Department of Educational Leadership
College of Education
William Raggio Building
Room 4052
University of Nevada, Reno | Mail Stop 0283
Reno, Nevada 89557-0201

Dear Dr. Thornton:

Please be advised that Walter H. Coulter was given permission to use the Five Factor Wellness Inventory (5F-Wei) for his dissertation research on the perceived stress, holistic wellness, and leadership practices of school administrators.

Due to copyright, inclusion of the Five Factor Wellness Inventory and Indivisible Self Wellness model figure in the dissertation itself are not including in this permission.

Sincerely,

Jane E. Myers, PhD
Professor
August 13, 2005

Mr. Walter H. Coulter
College of Education, University of Nevada
William Raggio Building
Reno, Nevada 89557-0201

Dear Walt:

Thank you for your request to use the Leadership Practices Inventory (LPI) in your dissertation. We are willing to allow you to reproduce the instrument as outlined in your letter, at no charge, with the following understandings:

(1) That the LPI is used only for research purposes and is not sold or used in conjunction with any compensated management development activities;
(2) That copyright of the LPI, or any derivation of the instrument, is retained by Kouzes Posner International, and that the following copyright statement is included on all copies of the instrument: "Copyright © 2003 James M. Kouzes and Barry Z. Posner. All rights reserved. Used with permission.";
(3) That one (1) electronic copy of your dissertation and one (1) copy of all papers, reports, articles, and the like which make use of the LPI data be sent promptly to our attention; and,
(4) That you agree to allow us to include an abstract of your study and any other published papers utilizing the LPI on our various websites.

If the terms outlined above are acceptable, would you indicate so by signing one (1) copy of this letter and returning it to us. Best wishes for every success with your research project.

Cordially,

Barry Z. Posner, Ph.D.
Managing Partner

I understand and agree to abide by these conditions:

(Signed) [Signature] Date: 9/22/05
APPENDIX B

Pilot Survey
The first set of questions ask you about your feelings and thoughts during the last month. In each case, you will be asked to indicate how often you felt or thought a certain way by placing a mark in the corresponding box.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>In the last month, how often have you been upset because of something that happened unexpectedly?</td>
</tr>
<tr>
<td>2</td>
<td>In the last month, how often have you felt that you were unable to control the important things in your life?</td>
</tr>
<tr>
<td>3</td>
<td>In the last month, how often have you felt nervous or &quot;stressed&quot;?</td>
</tr>
<tr>
<td>4</td>
<td>In the last month, how often have you felt confident about your ability to handle your personal problems?</td>
</tr>
<tr>
<td>5</td>
<td>In the last month, how often have you felt that things were going your way?</td>
</tr>
<tr>
<td>6</td>
<td>In the last month, how often have you found that you could not cope with all the things that you had to do?</td>
</tr>
<tr>
<td>7</td>
<td>In the last month, how often have you been able to control irritations in your life?</td>
</tr>
<tr>
<td>8</td>
<td>In the last month, how often have you felt you were on top of things?</td>
</tr>
<tr>
<td>9</td>
<td>In the last month, how often have you been angered because of things outside your control?</td>
</tr>
<tr>
<td>10</td>
<td>In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?</td>
</tr>
</tbody>
</table>

In the next section, we want you to rate yourself on the frequency you engage in the described behaviors by marking the corresponding box. Do not answer in terms of how you would like to behave or in terms of how you think you should behave. Do answer in terms of how you typically behave on most days, on most projects, and with most people.

<table>
<thead>
<tr>
<th></th>
<th>Almost Always</th>
<th>Rarely</th>
<th>Seldom</th>
<th>Once In A While</th>
<th>Occasionally</th>
<th>Sometimes</th>
<th>Fairly Often</th>
<th>Usually</th>
<th>Very Frequently</th>
<th>Almost Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>I set a personal example of what I expect of others.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>I talk about future trends that will influence how our work gets done.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>I seek out challenging opportunities that test my own skills and abilities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>I develop cooperative relationships among the people I work with.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>I praise people for a job well done.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>I spend time and energy making certain that people I work with adhere to the principles and standards we have agreed upon.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>I describe a compelling image of what our future could be like.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>I challenge people to try out new and innovative ways to do their work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>I actively listen to diverse points of view.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>I make it a point to let people know about my confidence in their abilities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>I follow through on the promises and commitments that I make.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>I appeal to others to share an exciting dream of the future.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
23 I search outside the formal boundaries of my organization for innovative ways to improve what we do.

24 I treat others with dignity and respect.

25 I make sure people are creatively rewarded for their contributions to the success of our projects.

26 I ask for feedback on how my actions affect other people's performance.

27 I show others how their long-term interests can be realized by enlisting in a common vision.

28 I ask "What can we learn?" when things don't go as expected.

29 I support the decisions that people make on their own.

30 I publically recognize people who exemplify commitment to shared values?

31 I build consensus around a common set of values for running our organization.

32 I paint the "big picture" of what we aspire to accomplish.

33 I make certain that we set achievable goals, make concrete plans, and establish measurable milestones for the projects and programs the we work on.

34 I give people a great deal of freedom and choice in deciding how to do their work.

35 I find ways to celebrate accomplishments.

36 I am clear about my philosophy of leadership.

37 I speak with genuine conviction about the higher meaning and purpose of our work.

38 I experiment and take risks, even when there is a chance of failure.

39 I ensure that people grow in their jobs by learning new skills and developing themselves.

40 I give the members of the team lots of appreciation and support for their contributions.

In the final section, you will read statements that describe you. Think about how you most often see yourself, feel, and/or behave -- and answer each item in a way that is true for you most of the time -- by marking the corresponding box. Do not spend too much time on any one item; your initial reaction is generally the most accurate response.
<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>49</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>51</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>52</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>53</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>54</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>55</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>56</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>57</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>58</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>59</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>61</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>62</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>63</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>64</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>65</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>66</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>67</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>68</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>69</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>70</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>71</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>72</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>73</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>74</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>75</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>76</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>77</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>78</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>79</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>80</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>81</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>82</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>83</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>84</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>85</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>86</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>87</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>88</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>89</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>90</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>91</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>92</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>93</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>94</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>95</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>96</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>97</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Almost done! Now we just need to ask a few questions about you for comparative statistics.

<table>
<thead>
<tr>
<th>Question</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is your current marital status?</td>
<td>A. married</td>
<td>B. single</td>
<td>C. separated</td>
<td>D. Divorced</td>
<td>E. Widowed</td>
</tr>
<tr>
<td></td>
<td>A. employed</td>
<td>B. employed</td>
<td>C. retired</td>
<td>D. retired</td>
<td>E. not working</td>
</tr>
<tr>
<td></td>
<td>A. yes, high</td>
<td>B. yes, working</td>
<td>C. graduate</td>
<td>D. divorced</td>
<td>E. widowed</td>
</tr>
<tr>
<td></td>
<td>A.</td>
<td>B.</td>
<td>C.</td>
<td>D.</td>
<td>E.</td>
</tr>
</tbody>
</table>
What is the highest level of education you have completed?
- A. less than high school
- B. high school graduate
- C. trade/technical school/A.A. degree
- D. Bachelor's degree
- E. Advanced degree

If you have an advanced degree, please specify your highest degree?
- A. Master's degree (M.A., M.Ed.)
- B. Specialist degree (Ed.S.)
- C. Professional degree (DDS, JD, MD)
- D. Doctorate degree (Ph.D., Ed.D.)

What is your biological sex?
- A. Male
- B. Female

Are you biracial?
- A. Yes
- B. No

What is the primary cultural background with which you most closely identify?
- A. Native American
- B. Asian or Pacific Islander
- C. African American
- D. Caucasian
- E. Hispanic/Latino/Latina

What is your sexual/affectional orientation?
- A. gay
- B. lesbian
- C. bisexual
- D. heterosexual

Thank you so much for participating in this important survey and helping to ensure that your administrative preparation remains the best that it can be! Please complete the Post-Survey questions before turning in your survey answers. We hope you have a great educational leadership experience!

Note: at the request of the author, the 5F Wel questions were not replicated in this paper.
APPENDIX C

Pilot Study
Pilot Study

Justification

In Chapter II, the literature on holistic wellness, perceived stress, and leadership practices was explored. Theoretical relationships between the variables were noted, as was the lack of empirical data to support such relationships. In order to effectively and cost-efficiently obtain a research sample with a large enough sample size, a web-based survey method was employed. Prior to considering the holistic wellness, perceived stress, and leadership practices measures together in a major study, a pilot study was undertaken to examine the survey mode itself. Therefore, the pilot survey was structured in a similar fashion to the actual web-based survey, and questions were asked of the pilot participants to get constructive feedback on the ease of understanding and completion, format, and length of the instrument.

Population

The population of interest for the research study is comprised of all K-12, public school, building-level administrators in one Western state. For this pilot study, a convenience sample was drawn from graduate students taking courses in educational leadership at a Western university. Participants in the study included students enrolled in one introductory educational leadership course during the Spring semester of 2005. Since these students were studying the fundamental aspects of educational administration, the researcher believed they would have enough knowledge of leadership and the stress encountered by practicing school administrators to, at the very least, be able to empathize with the population of interest.
Sample

Students in the graduate course described above were asked to participate in the pilot study. All students present in class on the night allocated to the researcher volunteered for the study. The number of participants totaled 18.

Design

Pilot Research Question and Hypothesis

R1: What are the weaknesses in survey construction that can be improved upon prior to the research study?

H1: Student feedback will reveal minor flaws in the survey construction.

Instrumentation

The Five Factor Wellness Evaluation of Lifestyle (5F-WEL) (Hattie, Myers, & Sweeney, 2004), the Perceived Stress Scale (PSS) (Cohen & Williamson, 1988), and the Leadership Practices Inventory (LPI) (Kouzes & Posner, 2003) were administered to subjects in the pilot study. Demographic data were collected using standard items included in the 5F-WEL. A full discussion of the characteristics of each instrument was provided earlier in this chapter.

Investigative Procedures

Participants were assured that only group statistics would be reported in the dissertation. To protect anonymity, participants were asked not to place any personally identifiable information on their surveys. Participants were administered a Likert-scale survey that included all three instruments. The survey was presented in a combined format similar to how the larger research population would later see the survey when it was in a web-based design. In addition to completing the combined survey (see appendix
B), participants were also asked to respond to a series of questions (see appendix C) intended to get feedback on the understandability, continuity, and length of the survey.

Data Analysis

The pilot study was qualitative in nature; therefore, there was no statistical analysis of data.

Results

The hypothesis stated that student feedback will reveal minor flaws in the survey construction. The findings supported the hypothesis. Although no major concerns were noted, several suggestions for the improvement of the survey were included with the responses.

Discussion

The results of the pilot study elicited information that was useful in the further refinement of the web-based survey that was administered to the research study participants. Pilot study participants spent between 10 and 25 minutes on the survey, so the researcher had a better idea how to advise the participants of the research study regarding the time necessary to complete the survey. Several of the participants commented that they thought the survey was too long, but the researcher cannot eliminate any questions without compromising the validity and reliability of the chosen instruments.

Although the consensus of the participants was that the instructions for each section were easy to understand and follow, a few of the respondents commented that the rationale for the study was very brief and that they would have appreciated a more in-depth explanation. Therefore, prior to completing the web-based survey as part of the
research study, all participants received a more-detailed pre-notice letter explaining the rationale for the study and the importance of their role in it. Research study participants also had the opportunity to email the researcher regarding any questions or concerns about the study.

The researcher was also made aware that two of the instruments were structured so that the responses ranged from least desirable to most desirable while one instrument was structured so that the responses ranged from most desirable to least desirable. This created confusion for a few of the participants, so the web-based survey was structured so that there was continuity with all question responses beginning with the least desirable choice and ending with the most desirable choice for all three sections of the survey. Finally, a few students pointed-out typos in the survey that were rectified in the web-based survey.
Thank you for agreeing to participate in this survey intended to help us gain a better understanding the relationships between perceived stress, leadership practices, and holistic wellness in public school administrators. The results of your efforts will allow us to make substantive recommendations to university colleges of education and school district administrations regarding the proper role of holistic wellness in educational leadership training. Please feel free to answer all questions honestly as your responses will be completely confidential. Only group scores will be reported out.

Post – Survey Questions

How many minutes did the survey take you?

Do you feel the survey was too long? Yes/No

Did the researcher adequately convey the rationale for the research? Yes/No

If not, how could it have been done better?

Were the instructions easy to understand and follow? Yes/No

If not, how could they have been structured better?
Do you want to receive your individual scores? Yes/No

Do you want to receive the group scores? Yes/No

Are there any other concerns regarding the structure or administration of this survey that you wish to share with us?

If you want to receive your scores, please ensure your ID# and email addresses are included below.

ID # _______________ Email address ________________________________
APPENDIX E

Institutional Review Board Exemption
DESCRIPTION OF STUDY

PURPOSE:

The time demands, pressures, and budget constraints facing public school administrators are making them less effective and public school administration less appealing now than at any time in the history of American education. Serious reform within the profession is needed if we want to avoid seeing the shrinking administrative candidate pool go dry (Cushing, et al., 2003; 2004).

The purpose of this study is to determine if there exists a relationship between levels of holistic wellness, perceived stress, and leadership practices in K-12, public school, building-level administrators. Results could inform curriculum development in educational administration preparation programs across the country.

PARTICIPANTS:

Participants will be drawn from the total population of (state), K-12, public school, building-level administrators (principals, vice principals, and academic deans). The total population is approximately 600.

RECRUITMENT PROCEDURES:

The co-investigator will acquire email addresses for the total population. Since public school administrator email addresses are public information, the co-investigator will first attempt to glean them from school district websites. For those districts that do not have the employee email addresses posted, the co-investigator will call the district offices for lists of building administrator email addresses.
The Tailor Design Method (Dillman, 2000) has been adapted to guide the survey process for this study. Everyone in the target population will receive a pre-notice letter via email containing the following elements: importance of study, purpose of the study, risks, benefits, assurances of confidentiality, sponsorship, and completion time (please see attached). Three days later, everyone in the target population will receive instructions for completing the survey and a link to a secure website (please see attached). One week later, everyone in the target population will receive an email expressing appreciation for responding and – if the survey has not already been completed – encouragement to do so (please see attached). The thank you/reminder process will be repeated one week later. All email correspondence were sent Blind Carbon Copy (Bcc) so that each individual will see only his/her own email address. If one of the recipients inadvertently hits “reply to all,” the only recipient be the co-investigator (Dillman, 2000).

The first email contact with participants will occur on or after September 1, 2005.

INFORMED CONSENT:

A waiver of written informed consent is requested, as:

(1) the research involves no more than minimal risk to the subjects;

(2) the waiver or alteration will not adversely affect the rights and welfare of the subjects;

(3) the research could not practicably be carried out without the waiver or alteration; and

(4) whenever appropriate, the subjects will be provided with additional pertinent information after participation.
PERFORMANCE SITES:

Participants will be public school employees of the State of (state). All correspondence will be sent to participants’ work email addresses (e.g., jsmith@washoe.k12.nv.us). Participants will access a secure website to complete the survey.

METHODS AND PROCEDURES:

Participants will read the introduction to the survey (please see attached). Participants will then access the survey by selecting a link to a secure website where it will be located. Then they will complete the combined survey regarding holistic wellness, perceived stress, and leadership practices (please see attached). When the survey is completed, participants will click on the submit button – which will send survey results to a secure database for collection. The total time commitment of each participant involved will be approximately 20 – 25 minutes.

RISKS:

The participants are all professional educators and are not a vulnerable population. The survey questions are not sensitive in nature. Therefore, the risks to the human subjects involved in this study will be minimal.

BENEFITS:

Even though the intent of this study is to analyze the relationship between holistic wellness, perceived stress, and leadership practices in school administrators there is no guarantee that participants will benefit from this study. The knowledge gained will inform future administrator preparation and/or administrator professional development programs.
**RISK-BENEFITS RATIO:**

The potential benefits of this study outweigh the minimal risks involved – not only for the individuals and the school district involved – but for the educational profession in general.

**COSTS/COMPENSATIONS TO PARTICIPANTS:**

There will be one primary cost for the participants involved in this study; it is time. As mentioned previously, participants will need to make a one-time investment of approximately 20 - 25 minutes to participate in this study. There are no other direct participant costs associated with this study.

**DISCLOSURE OF FINANCIAL INTERESTS:**

The investigators do not anticipate any personal financial gain as a result of choosing this topic, this population, or the resources incorporated into this study.

**CONFIDENTIALITY:**

Investigators will treat the identity of the participants with professional standards of confidentiality and protect confidentiality to the extent allowed by law. Participants will respond anonymously via a secure website. No personally identifiable information will be recorded. Because responses are anonymous, participants cannot be personally identified in any reports or publications that may result from this study.

The data collected for this study will be kept in a locked filing cabinet in the UNR Department of Educational Leadership. The data will be kept there for a period of three years – at which time it will be shredded by the UNR Department of Educational Leadership. In addition to the investigators, the University of Nevada, Reno Social Behavioral Institutional Review Board will have access to these data if it so wishes.
WORKS CITED:


OFFICE OF HUMAN RESEARCH PROTECTION

UNIVERSITY OF NEVADA, RENO

STATEMENT OF EXEMPTION from review by Institutional Review Board

The Department of Health and Human Services (DHHS) published amended regulations governing research involving human subjects in the Federal Register of June 18, 1991, altering the scope of previous Department regulations by exempting categories of research which present little or no risk of harm to human beings. Exemption from Institutional Review Board review and approval must be based on the exemptions specified in the Federal Register of June 18, 1991. The responsibility for claiming the exemption will rest in the UNR Office of Human Research Protection, either with the Director, his/her designee, or the Chair of the appropriate UNR Institutional Review Board.

Six exemption categories are listed on the back of the form. Select the exempt categories that are appropriate for your research. In questionable cases, Investigators are strongly urged to consult the UNR Office of Human Research Protection.

The above stated policy is effective as of June 18, 1991.

PLEASE TYPE ALL INFORMATION. The original of this form must be forwarded to the UNR Office of Human Research Protection, 205 Reno Hall / 331, with the informed consent form and instruments, i.e., questionnaires, tests, interview transcripts, stimulus material, letters of permission from sites of performance, etc.

Investigator(s): P.I. -- Gary L. Peitler, C.I. -- Walter H. Coulter
Department or Unit: Educational Leadership
Telephone contact / E-mail address: 784-6516 X2325 gpeitler@unr.edu

Title of Study: Holistic Wellness, Perceived Stress, and Leadership Practices in K-12 Public School Administrators

Duration of Study (specify beginning and ending month/yr): September 1, 2005

Sponsor (if funded to do this research): N/A

Citation of exempt category (see Exemption Categories): Category 2

Description of study and reason for including it in the exempt category: See attached

Walter H. Coulter
Typed Name of Investigator

Gary L. Peitler
Typed Name of Graduate Advisor

Signature of Investigator Date

Signature of Graduate Advisor Date

Signature of Chair of IRB / Director of UNR OHRP Date

87/62 rev.
APPENDIX F

Email to School District Superintendents
Dear (School District Superintendent),

My name is Walt Coulter. I am a PhD candidate at UNR preparing to conduct an empirical study of school administrators in (state). The study will entail a one-time, self-report assessment of the holistic wellness, perceived stress, and leadership practices of building-level administrators via a web-based survey. It is my hope that the knowledge gained will enable us to develop university coursework and district staff development programs to improve the effectiveness of site administrators by enhancing personal wellness and reducing perceived stress. As you know, with the shrinking candidate pool, it is becoming increasingly imperative that we do more to take care of the excellent (but beleaguered) site administrators we do have.

The reason I am contacting you is two-fold. First, I would greatly appreciate your blessing in this endeavor. Second, I would like you to designate a district liaison who I can contact to get the necessary information to build my data base of (state) school site administrators. The (state) Department of Education website has schools and addresses, so basically what I will need are the names of the administrators (principals, vice principals, academic deans) assigned each school within your district – along with their district email addresses.

Since school administrators are not a sensitive population and all survey responses will be anonymous, I will be getting a waiver from the UNR IRB (Institutional Review Board). I am attaching the Description of Study approved by the IRB for your perusal.
As this is a statewide survey, the full participation of all districts will not only be greatly appreciated – but will increase the likelihood that the findings will be of significance.

Thank you in advance for your support in this endeavor. If you have any questions or concerns, my contact information is below.

Respectfully,

Walt Coulter
421 Alma Lane, Apt. A
Clarksville, TN 37043
wcoulter@unr.nevada.edu
(931) 647-6308
APPENDIX G

Web-based Survey
The first set of questions ask you about your feelings and thoughts during the last month. In each case, you will be asked to indicate how often you felt or thought a certain way by placing a mark in the corresponding box.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>In the last month, how often have you been upset because of something that happened unexpectedly?</td>
</tr>
<tr>
<td>2</td>
<td>In the last month, how often have you felt that you were unable to control the important things in your life?</td>
</tr>
<tr>
<td>3</td>
<td>In the last month, how often have you felt nervous or &quot;stressed&quot;?</td>
</tr>
<tr>
<td>4</td>
<td>In the last month, how often have you felt confident about your ability to handle your personal problems?</td>
</tr>
<tr>
<td>5</td>
<td>In the last month, how often have you felt that things were going your way?</td>
</tr>
<tr>
<td>6</td>
<td>In the last month, how often have you found that you could not cope with all the things that you had to do?</td>
</tr>
<tr>
<td>7</td>
<td>In the last month, how often have you been able to control irritations in your life?</td>
</tr>
<tr>
<td>8</td>
<td>In the last month, how often have you felt you were on top of things?</td>
</tr>
<tr>
<td>9</td>
<td>In the last month, how often have you been angered because of things outside your control?</td>
</tr>
<tr>
<td>10</td>
<td>In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?</td>
</tr>
</tbody>
</table>

In the next section, we want you to rate yourself on the frequency you engage in the described behaviors by marking the corresponding box. Do not answer in terms of how you would like to behave or in terms of how you think you should behave. Do answer in terms of how you typically behave on most days, on most projects, and with most people.

<table>
<thead>
<tr>
<th></th>
<th>Almost Never</th>
<th>Rarely</th>
<th>Seldom</th>
<th>Once In A While</th>
<th>Occasionally</th>
<th>Sometimes</th>
<th>Fairly Often</th>
<th>Usually</th>
<th>Very Frequently</th>
<th>Almost Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>I set a personal example of what I expect of others.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>I talk about future trends that will influence how our work gets done.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>I seek out challenging opportunities that test my own skills and abilities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>I develop cooperative relationships among the people I work with.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>I praise people for a job well done.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>I spend time and energy making certain that people I work with adhere to the principles and standards we have agreed upon.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>I describe a compelling image of what our future could be like.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>I challenge people to try out new and innovative ways to do their work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>I actively listen to diverse points of view.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>I make it a point to let people know about my confidence in their abilities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>I follow through on the promises and commitments that I make.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>I appeal to others to share an exciting dream of the future.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Almost Never</td>
<td>Rarely</td>
<td>Seldom</td>
<td>Once In A While</td>
<td>Occasionally</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>I search outside the formal boundaries of my organization for innovative ways to improve what we do.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>I treat others with dignity and respect.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>I make sure people are creatively rewarded for their contributions to the success of our projects.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>I ask for feedback on how my actions affect other people’s performance.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>I show others how their long-term interests can be realized by enlisting in a common vision.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>I ask “What can we learn?” when things don’t go as expected.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>I support the decisions that people make on their own.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>I publicly recognize people who exemplify commitment to shared values?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>I build consensus around a common set of values for running our organization.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>I paint the “big picture” of what we aspire to accomplish.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>I make certain that we set achievable goals, make concrete plans, and establish measurable milestones for the projects and programs the we work on.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>I give people a great deal of freedom and choice in deciding how to do their work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>I find ways to celebrate accomplishments.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>I am clear about my philosophy of leadership.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>I speak with genuine conviction about the higher meaning and purpose of our work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>I experiment and take risks, even when there is a chance of failure.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>I ensure that people grow in their jobs by learning new skills and developing themselves.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>I give the members of the team lots of appreciation and support for their contributions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In the final section, you will read statements that describe you. Think about how you most often see yourself, feel, and/or behave -- and answer each item in a way that is true for you most of the time -- by marking the corresponding box. Do not spend too much time on any one item; your initial reaction is generally the most accurate response.
<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>48</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>49</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>51</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>52</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>53</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>54</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>55</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>56</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>57</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>58</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>59</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>61</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>62</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>63</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>64</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>65</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>66</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>67</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>68</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>69</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>70</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>71</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>72</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>73</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>74</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>75</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>76</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>77</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>78</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>79</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>80</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>81</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>82</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>83</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>84</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>85</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>86</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>87</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>88</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>89</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>90</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>91</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>92</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>93</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>94</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>95</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Almost done! Now we just need to ask a few questions about you for comparative statistics.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>132</th>
<th>What is your current marital status?</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A. married/partnered</td>
<td>B. single</td>
<td>C. separated</td>
<td>D. Divorced</td>
<td>E. Widowed</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>133</th>
<th>What is your current employment status?</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A. employed full-time</td>
<td>B. employed part-time</td>
<td>C. retired; not working</td>
<td>D. retired; working part-time</td>
<td>E. not working</td>
<td></td>
</tr>
</tbody>
</table>
Are you currently a student?  
A. yes, in high school     B. yes, working on an undergraduate degree  
C. yes, working on a graduate degree     D. divorced     E. widowed

What is the highest level of education you have completed?  
A. less than high school     B. high school graduate  
C. trade/technical school/A.A. degree     D. Bachelor's degree  
E. Advanced degree

If you have an advanced degree, please specify your highest degree?  
A. Master's degree (M.A., M.Ed.)     B. Specialist degree (Ed.S.)  
C. Professional degree (DDS, JD, MD)D. Doctorate degree (Ph.D., Ed.D.)

What is your biological sex?  
A. Male                    B. Female

Are you biracial?  
A. Yes         B. No

What is the primary cultural background with which you most closely identify?  
A. Native American     B. Asian or Pacific Islander     C. African American  
D. Caucasian                      E. Hispanic/Latino/Latina

What is your sexual/affectional orientation?  
A. gay               B. lesbian               C. bisexual              D. heterosexual

Note: at the request of the author, the 5F Wel questions were not replicated in this paper
APPENDIX H

Survey Cover Sheets
Welcome to the Stress, Leadership, and Wellness survey of (state) K-12, public-school, building-level, school administrators. Each of the survey’s three sections is preceded by its own set of directions. Please understand that in order to maintain the integrity of this study all questions must be answered in one sitting. You will select the best answer for each question by clicking on the button immediately to the answer’s left with your mouse. Clicking on the “Next” arrow at the bottom of each page will advance you through the survey questions. After you have completed the survey, a brief message will appear thanking you for your participation and commitment to the betterment of our profession, then you will click on the “Done” arrow to submit your data and exit the survey.
Congratulations!

You have not only completed the survey – but you have also contributed to a knowledge base that may lead to better training and care of site administrators. As you know, your individual information is confidential and anonymous, but if you want a summary group report of the survey results sent to you, then just email the researcher at

wcoulter@unr.nevada.edu with that request. Wishing you fulfillment in your future educational endeavors. Be well. Walt Coulter
APPENDIX I

Contact #1:

Pre-Notice Letter
September 1, 2005

Dear (state) Administrator,

In a few days, you and other (state) public school administrators will receive an email asking you to select a link to a web-based survey. The survey is a crucial component of a study on holistic wellness, perceived stress, and leadership practices in K-12, public school administrators. In the following paragraphs, I will briefly expound on the importance of this study, the purpose of this study, assurances of confidentiality, sponsorship, and completion time.

**Importance of Study**

The time demands, pressures, and budget constraints facing the principals of public, K-12 schools are making principals less effective and the principalship less appealing now than at any time in the history of American education. Serious reform within the profession is needed if we want to avoid seeing the shrinking administrative candidate pool go dry (Cushing, et al., 2003; 2004).

**Purpose of Study**

The purpose of this study is to determine if there exists a relationship between levels of holistic wellness, perceived stress, and leadership practices in K-12, public school administrators.
Risks
The risks to you are minimal. The survey questions are not sensitive in nature and your responses will be anonymous.

Benefits
Although there is no guarantee that you will benefit personally, results will inform educational administration preparation program development and administrator professional development in school districts across the country.

Assurances of Confidentiality
The information obtained from you will be anonymous. You will not be personally identified in any reports or publications that may result from this study.

Sponsorship
This study has been approved by the Department of Educational Leadership and the Institutional Review Board of the University of Nevada, but it is being sponsored by no one. The investigators have no connection with any special interest groups and do not anticipate any personal financial gain as a result of choosing this topic, this population, or the resources incorporated into this study.

Completion Time
You will need to complete the survey all in one sitting, so please allot a 30 minute block of time to do so. Pilot study participants took between 20 and 25 minutes to complete the survey.
A high participation rate is crucial to obtaining statistical significance from the results of this study; however, please understand that your participation in it is voluntary. If you are willing to participate in the study, simply send a blank email with a “yes” in the subject box to wcoulter@unr.nevada.edu no later than February 10, 2006. Shortly thereafter, you and other participating (state) public school administrators will receive an email directing you to the web-based survey.

I have only briefly addressed importance, purpose, confidentiality, sponsorship, and completion time, but if you have and additional questions regarding the survey or your role in the study, please do not hesitate to contact me at wcoulter@unr.nevada.edu or (931) 647-6308. Thank you for your dedication to our profession.

Regards,

Walter H. Coulter

PhD candidate in Educational Leadership, University of Nevada
APPENDIX J

Contact #2:

Survey Link Letter #1
Dear (state) School Administrator:

Thank you for your agreeing to complete a web-based survey on stress, wellness and leadership practices among (state), K-12, public school administrators. To access the survey, please click on the following link [SurveyLink] and enter the following password (hwpslp05).

Thank you for your participation.

Should you have any questions or concerns, feel free to contact me at

wcoulter@unr.nevada.edu or (931) 647-6308.

Regards,

Walt Coulter
PhD Candidate, Educational Leadership, University of Nevada

You may report (anonymously, if you so choose) any complaints or comments regarding the manner in which this study is being conducted to the University of Nevada, Reno Social Behavioral Institutional Review Board at (775) 327-2368 or by addressing a letter to the Chair of the Board, c/o UNR Office of Human Research Protection, 205 Ross Hall / 331, University of Nevada, Reno, Reno, NV 89557.
Please note: Your participation in this study is entirely voluntary. If you do not wish to receive further emails from the researcher, please click the following link, and you will be automatically removed from the mailing list: [RemoveLink]
APPENDIX K

Contact #3:

Survey Link Letter #2
Dear (state) School Administrator,

Previously, you agreed to complete a survey on perceived stress, leadership practices, and holistic wellness in (state), K-12, public school administrators.

It is really important that I receive all the responses as quickly as possible, because the survey window is limited.

I haven't heard from you yet, and I am hoping that you will still complete the survey.

To access the survey, please click on the following link [SurveyLink] and then enter the following password [hwpslp05].

If that does not work, please cut and paste the address into your web browser and then you will be prompted for the password.

Thanks in advance for your help!

Should you have any questions or concerns, feel free to contact me at wcoulter@unr.nevada.edu or (931) 647-6308.
Regards,

Walt Coulter

PhD Candidate, Educational Leadership, University of Nevada

You may report (anonymously, if you so choose) any complaints or comments regarding the manner in which this study is being conducted to the University of Nevada, Reno Social Behavioral Institutional Review Board at (775) 327-2368 or by addressing a letter to the Chair of the Board, c/o UNR Office of Human Research Protection, 205 Ross Hall / 331, University of Nevada, Reno, Reno, NV 89557.

Please note: Your participation in this study is entirely voluntary. If you do not wish to receive further emails from the researcher, please click the following link, and you will be automatically removed from the mailing list. [RemoveLink]
APPENDIX L

Contact #4:

Survey Link Letter #3
Dear Nevada School Administrator,

This is your final email reminder to complete the web-based survey on perceived stress, leadership practices, and holistic wellness in (state) K-12 public school administrators.

It is important that I receive your answers as soon as possible, so that the data collected will be from the same time period.

To access the survey, please click on the following link [SurveyLink] and enter the following password [hwpslp05].

If that does not work, please cut and paste the address into your web browser and then you will be prompted for the password.

Thank you so much for your participation!

Should you have any questions or concerns, feel free to contact me at

wcoulter@unr.nevada.edu or (931) 647-6308.

Regards,

Walt Coulter

PhD Candidate, Educational Leadership, University of Nevada
You may report (anonymously, if you so choose) any complaints or comments regarding the manner in which this study is being conducted to the University of Nevada, Reno Social Behavioral Institutional Review Board at (775) 327-2368 or by addressing a letter to the Chair of the Board, c/o UNR Office of Human Research Protection, 205 Ross Hall / 331, University of Nevada, Reno, Reno, NV  89557.

Please note: Your participation in this study is entirely voluntary. If you do not wish to receive further emails from the researcher, please click the following link, and you will be automatically removed from the mailing list. [RemoveLink]