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Crumbling Foundations: The Case for Prioritizing Self-Care Among Educational Leaders

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Crumbling Foundations: The Case for Prioritizing Self-Care Among Educational Leaders

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Abstract

There is a potentially dangerous disassociation between human behavior, decision-making, and ethics and the notion that these fundamental aspects of what it means to be human originate simply as the functions of an organ. A deeper knowledge of the operation and limitations of the brain suggests biological input could possess the ability to unknowingly alter human behavior and effectiveness. This study utilizes a research-based understanding of the implications of human health and self-care habits on neurological, psychological, and behavioral function to examine the current practices of educational administrators across Arkansas while exploring systemic and job-based factors within the profession that could be competing with the establishment of good health. A mixed method design employing a statewide survey distributed in conjunction with the Arkansas Department of Education asked principals and assistant principals questions intended to uncover the current reality of administrative self-care. Qualitative data designed to identify commonalities in personal experiences was collected through open-ended questions in the survey and focus groups specifically constructed to hear from participants with diametrically opposed self-reported habits. At the convergence of the data representing the state of self-care and the qualitative experiences from practitioners is the potential for education and change that could promote healthier, more effective educational leaders.

Dedication

This dissertation is dedicated to Sarah, Hudson, and Harrison.

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CHAPTER ONE—INTRODUCTION

Introduction

The purpose of this study is to examine the self-care habits of building-level educational administrators throughout Arkansas through the lens of a research-based understanding of their impact on cognitive performance, decision making, behavior, and human psychology, and to explore the systemic and job-based factors that could contribute to habits that may be impacting the performance of these leaders. Because of the nature of the job, administrators find themselves regularly making decisions that impact students, teachers, building and district climates, and communities. As with most leadership positions, success within educational leadership depends on an individual's ability to operate cognitively and socially at the highest level.

This research investigates the habits of building-level leaders in Arkansas and their ability to manage the stresses of their jobs while maintaining healthy self-care practices. For the sake of this research, these self-care practices are structured around Abraham Maslow's hierarchy of needs (Maslow, 1943). One of the fundamental ideas that Maslow set forth was that, until the foundational elements of the hierarchy were met, they would compete with the higher levels and a person's ability to progress through the continuum toward self-actualization. With this in mind, this study focuses on what Maslow identified as the most fundamental aspects of human need: physiological, safety and security, and love and belonging. According to Maslow, as the three bottom tiers of the hierarchy, these are the critical human needs that form the foundation of higher functions.

Specific to this research, the first tier of physiological needs was addressed by analyzing data on the three passive self-care habits of sleep, hydration, and nutrition. Next, a more active group of self-care habits, exercise, relaxation, and stress relief, were used to explore

Maslow's (1943) second tier of safety needs. Maslow's third tier of belongingness and love (1943) was viewed through the lens of work–life balance, volunteerism and philanthropy, and relational belonging. Finally, this study asked leaders to identify job-embedded challenges that hinder administrators' efforts to adopt healthy self-care habits outlined in this research. Current research that highlights the emerging trends with regard to high-level cognitive and ethical decision making and the neurological pathways where these decisions are formed is also presented. In conjunction, further research is outlined to determine the direct impact of these pathways on the neurological components by the deprivation of the basic physiological and psychological self-care habits selected to represent Maslow's hierarchy of needs. The significance of this research lies in this impact not only on general health or life expectancy but also on the neurological pathways that transmit some of the most unique human characteristics of ethics, morality, and critical thinking necessary to success as an educational leader. While these are skills not uniquely applicable to the role of educational administrators, their impact is worth consideration in the development of job descriptions, professional expectations, training, and even policy making within the field of education. If educational leaders practice unhealthy self-care habits, it may influence their effectiveness, happiness, and possibly their longevity within the profession. The data collected through this study were used to understand the self-care practices of building-level administrators throughout Arkansas and then to draw from their responses to form ideas about policies and procedures that could promote greater opportunities for healthier, more effective leaders within schools.

Problem Statement

This research addresses the impact of fundamental human self-care and the possibility that, while most people understand the importance of healthy routines, they may not understand

the negative implications that poor habits can have in terms of performance, cognition, behavior, psychology, and functional execution. Specifically, this research seeks to understand the state of self-care habits within building-level leaders, to view these habits through the lens of what existing research says about their impact on human function and cognition, and to gather data that could build a basis for the creation of policies, professional standards, and expectations that promote healthier, more effective educational leaders.

Education has experienced several trends in recent years, of which accountability, privatization, and choice have been especially polarizing. Among all of these, there is increasing pressure on schools to perform or face being labeled as failing. This pressure lies heavily upon the shoulders of principals as one of the most influential factors in student success (Brockmeier, Starr, Green, Pate, & Leech, 2013). Nationally collected statistics suggest that the average building principal reports spending 59 hours per week at work, with principals leading schools not making adequate yearly progress, investing on average 1.5 more hours weekly (Lavigne, Shakman, Zweig, & Greller, 2016). The time spent on the job could be directly tied to the responsibilities facing educational leaders, which include school operation, instructional leadership, building relationships with staff, and meetings, among other duties (Horng, Klasik, & Loeb, 2010). Yet another aspect of the instructional impact of building leaders is their responsibility to recruit, develop, and retain high-quality teachers (Harris, Rutledge, Ingle, & Thompson, 2010). One particular study focusing on principals' time management observed building leaders monitoring their time usage every five minutes in an attempt to measure principal effectiveness against nearly 50 separately identified uses of time across 6 distinct categories (Horng et al., 2010). As a result of this workload, time management and high-level cognitive planning are associated with lower principal stress and improved effectiveness

(Grissom, Loeb, & Mitani, 2015). These studies help bring into focus the complexity of the role of building principals and the cognitive demand that success requires.

Administration
Managing student services (e.g., records, reporting)
Managing student discipline
Supervising students (e.g. lunch duty)
Managing schedules (for the school, not personal schedule)
Fulfilling (non SpEd) ompliance requirements/paperwork
Preparing, implementing, administering standardized tests
Managing students attendance-related activities
Fulfilling SpEd requirements (e.g., meetings with parents)
Organization Management
Managing budgets, resources
Managing non-instructional staff
Maintaining campus facilities
Developing and monitoring a safe school environment
Dealing with concerns from staff
Hiring personnel
Interacting or networking with other principals
Managing personal, school-related schedule
Day-to-Day Instruction
Preparing, conducting classrm. observations/walk-throughs
Formally evaluating teachers, providing instruc. feedback
Informally coaching teachers
Teaching students (e.g., tutoring, after-school)
Implementing required professional development
Using data to inform instruction

Instructional Program
Utilizing school meetings
Planning, directing after-school/summer instruction
Planning, facilitating professional development for teachers
Planning, facilitating PD for prospective principals
Developing an educational program across the school
Releasing or counseling out teachers
Evaluating curriculum
Using assessment results for program evaluation
Internal Relations
Interacting socially with staff about school-related topics
Interacting socially with staff about non-school topics
Developing relationships with students
Counseling students and/or parents
Attending school activities (e.g., sports events, plays)
Communicating with parents
Counseling staff (about conflicts with other staff members)
Informally talking to teachers about students, not related to instruction
External Relations
Working with local community members or organizations
Utilizing district office meetings or other communications initiated by the district office
Communicating with district office to obtain resources for school (initiated by principal)
Fundraising

Figure 1. Principal job tasks measured among building principals in the Miami-Dade County Public Schools (Horng, Klasik, & Loeb, 2010, Figure 1).

With this complexity in mind, the potential universal application of improved administrator self-care could slow the cognitive onslaught and position administrators to become more successful overall. The data collected through this study could provide reflective

opportunities for participants to see the potential impact of self-care on their increasingly complex job performance. The data gathering during the research period could also help form interventions that could improve effectiveness and better overall health outcomes for leaders.

Rather than assuming that a specific problem exists, this research seeks to understand the current reality of self-care habits for these building administrators. A survey was distributed to educational leaders throughout Arkansas with questions specifically targeting the identified self-care habits. After collecting the data, a clearer picture of the overall well-being of those entrusted with the leadership of schools emerged. Such an understanding of this issue has particular relevance at present in light of current research highlighting the effect that the self-care habits can have not only on health but also on psychological, cognitive, decision-making, and even ethical processes. The survey questions were formulated to determine how job-related aspects of the role of educational administrators may influence those within the field toward less-than-ideal habits. To support the data gathered for this paper, focus groups were conducted to hear directly from practicing administrators on how they view their own self-care and the impact it has on them personally and professionally.

Focus on Instructional and/or Systemic Issues

Anything limiting the effectiveness of a leader is detrimental to those being led. Therefore, the state of the leader affects the state of the organization. Unmet foundational self-care needs undermine the personal and professional experience and happiness of human beings. This is not a new concept. From professional and self-help concepts, such as Stephen Covey's seventh habit of *Sharpening the Saw* (Covey, 1989), to Maslow's motivational theory of a psychological hierarchy toward self-actualization (Maslow, 1943), the need to take care of our

needs is imperative. In both of these examples, the concept of meeting one's personal needs acts as a prerequisite for further progression through the continuum toward greater effectiveness.

Within education, there is an emerging issue among leaders. Studies show that nearly 30% of building principals in struggling schools quit every year and that, by year three, more than half of building principals leave their jobs (Tyre, 2015). Many possible reasons and conclusions could be drawn about what causes leadership attrition. However, as collegiate preparation programs consistently improve, millions of dollars are spent toward professional development and learning for administrators, and states like Arkansas have developed administrator mentorship programs, but the statistics remain relatively consistent. Adding to the issue is the fact high principal turnover leads to high teacher turnover (Beteille, Kalogrides, & Loeb, 2011), which negatively impacts both student achievement and fiscal efficiency (Branch, Hanushek, & Rivkin, 2009).

A challenge in addressing these issues is that no two schools or districts are the same, which makes it extremely difficult to pinpoint areas for unilateral success. What is uniquely meaningful about this research is that it seeks to address an area that is constant across every single educational system: human needs. If we could find ways to ensure that every administrator within a system was practicing healthy, research-based self-care habits, there may be a chance for improvement in any system or structure.

Directly Observable

As school improvement and student performance are increasingly measured in the United States, several aspects of education are being evaluated. As previously stated, one of the only constants among the many variations of schools and districts are the human beings that run them. If personal self-care habits influence our high-level and ethical decision-making processes, then

there are major implications for improvement in this area. In 2008, the state of Arkansas began a more focused and comprehensive look at the ethical behavior of Arkansas educators. Over the years, this has highlighted concerns both in ethical behavior as well as reporting practices and inconsistencies. During the 2015–2016 school year, the state had 546 ethics violations reported at the state level. Something to be considered when examining their findings is the relatively small size of the state and the certified teaching force it employs.

Although it is fair to assume that the majority of educated professionals understand the importance of personal health and wellness, the influence on cognitive performance is not regularly discussed. While many aspects of a person's well-being are private, this research targets universal aspects that can be part of conversations about individual or organizational improvement. These universal aspects, targeting the lower three tiers of Maslow's hierarchy of needs (Maslow, 1943), are directly observable. Throughout the survey, the questions were designed with a focus on all three levels of need and the research-based habits selected to represent them in this study. Both quantitative and qualitative data were collected through the survey instrument. The results of this survey provided data that point to observable practices for leaders within their schools as well as habits occurring outside of the work day. In an attempt to add perspective to the data, two focus groups of practicing administrators were formed. The discussions with these leaders added a human voice to the quantitative data collected through the survey while allowing leaders to reflect on how self-care impacts their personal practice. The collective results of this study have particular relevancy at present because they represent the self-reported habits and experiences of leaders currently serving within the state. Additionally, this provided a data set for analysis that can provide observable information on the habits of practicing administrators. To the knowledge of the researcher, such data have not been collected

for the state and could bring to light areas for potential improvement in school systems that may have been previously unknown. The theory guiding this research is that there are aspects of the personal care of educational administrators that could be daily limiting their effectiveness in the role. Through the collection of this data and the ability of participants to provide insight into the job-embedded experiences challenging healthy habits, the research managed to initiate conversations and decisions that could improve leader effectiveness, health, and happiness across the state while potentially informing policy and even further study on the observable impact of changes in terms of professional expectations, norms, and training programs for these people on their overall health habits.

Actionable

This research occurred at the convergence of medical, behavioral, ethical, and educational research. These pathways have seldom crossed, especially within the field of educational leadership. The purpose of this study is to serve as a starting point for understanding the role of self-care in decision making and cognitive function while focusing squarely on one of the more scrutinized professions in modern society. Gaining a better understanding of the process by which we make decisions and the impact of outside stimuli on intuitive decision making has the potential to interest leaders even outside of education. Furthermore, gaining a better understanding of the effects of self-care could not only help to ensure better, more efficient leaders but all-around healthier members of society.

The area of administrator health and self-care is actionable at many levels. The first and possibly most important consists of data-driven changes for those operating within the field. As data were collected and habits identified, the research could provide active administrators with targeted goals for personal and professional improvement. The next concrete

example of how these data provided a means for actionable change is in informing district-level decision making. These data could provide a catalyst for discussions about roles, expectations, training programs, and policies. If data on administrator health help drive decisions, then there is a greater possibility for lasting systemic change for those in school leadership. Because these data are representative of many school districts and communities across Arkansas, they could initiate conversations among both local decision makers in school districts and even larger governing bodies at the regional and state levels. The power of changing health habits among leaders is that it is universal in its application. While every system or district may be different, this research is based on psychology and biology relevant for every human being and therefore has meaning for all educational leaders and systems.

Connects to a Broader Strategy of Improvement

Greater overall health and effectiveness among educational leaders have wide-reaching implications. First, there is a correlation between the results of this research and the Professional Standards for Educational Leaders (National Policy Board for Educational Administration, 2015), which define what successful practice within the role looks like. Standard two addresses the ethics and professional norms of leaders while specifically referencing the leader's perseverance, continuous improvement, decision making, and social-emotional insight. Standard six, which encompasses the leader's role in the professional capacity of school personnel, specifically places responsibility upon the principal for the personal and professional health and work–life balance of the lives of the staff and leaders (National Policy Board for Educational Administration, 2015).

Next, a number of schools in Arkansas have recently adopted *The Leader in Me* program based on Stephen Covey's *Seven Habits of Highly Effective People* (Covey, 1989). This program

develops student leadership while instilling accountability among staff for highly effective practices. The seventh and all-encompassing habit according to Dr. Covey as well as this program is to "sharpen the saw" (Covey, 1989). This fundamental aspect of a defining characteristic of these schools and districts is predicated on the idea that we, as human beings, cannot become highly effective unless we invest in ourselves physically, emotionally, and mentally. While not specifically applicable to all school districts, many local districts and schools have structured the operation of their systems based on this model, which would support the efforts involved in this research.

A final alignment between this research and an emerging national trend is the shortage of educators and the challenge of retaining those currently in the field. In an annual study done by the University of California, the last 10 years have shown a striking drop in those entering the teaching profession (Flannery, 2016). The research shows that just 10 years ago, 10% of all entering college freshmen declared education as their major. That number has dropped to 4.2% as of 2016 (Flannery, 2016). Another study initiated by teachers' unions found that 4 out of every 10 teachers are leaving the profession within their first year on the job (Weale, 2015). This trend, coupled with Tyre's report that indicates that over half of building principals leave within their first three years, is cause for concern (Tyre, 2015). There are plenty of possible reasons that could explain why people leave or never enter the profession, but research like this, which highlights areas that could develop healthier, happier practitioners who are ultimately more effective in their positions, could be meaningful in further discussions on the issue.

High Leverage

Nationally, schools are facing challenges in recruiting and retaining educators and educational leaders. Within the state of Arkansas, the last 10 years have brought a statewide

focus on the ethical practices of teachers and administrators. However, the last two years have each seen over 500 ethics violations, most often involving either the misappropriation of some type of school funding or the inappropriateness of a relationship between staff members or between staff members and students (Arkansas Department of Education, 2016). In schools, the educational leader faces ethical or challenging decisions that can seem simple but set precedents with regard to student discipline, impact relationships with staff throughout the evaluation process, and direct the morale of the staff in a way that entices or repels great educators and affects growth and learning. If the absence of fundamental needs as humans could impact these processes, then any progress toward understanding the state of administrator self-care or the influences on their practice is meaningful for everyone involved in the educational process.

The average adult makes at least 35,000 decisions every day (Hoomans, 2015). Scientists have found links between dehydration and short-term memory loss, executive function, overall mood, and demeanor (Masento, Golightly, Field, Butler, & van Reekum, 2014). Sleep deprivation has shown to have a dramatic impact on cognitive function, especially in areas of coded decision making where the individual has to plan ahead and undertake a cost-benefit analysis of an intended action (Harrison & Horne, 2000). Stress has been found to impair judgment and decision making, especially when the subject perceives a situation as threatening. This often results in limited attention to detail, reduced executive ability, and the inability to overcome the first, automatic response to a threat (Snyder, 2001). Each of these is significant and truly only represents the physiological or most basic needs of leaders. These examples provide insight into the value of considering the potential of improving self-care habits as a means of increased personal and professional improvement among educational leaders.

This research presents a picture of the state of self-care among participating administrators in the state of Arkansas. By simply gaining this knowledge, the state and local school districts could provide support for the research-based improvement of leaders' physiological and neurological well-being and effectiveness. Additionally, by seeking to understand the experiences within the role of educational leaders and the challenges these individuals face in their personal care, districts could make informed decisions about policy, expectations, and the allocation of resources to provide systemic support for the people in critical roles within their systems. Because of the universal nature of these human needs, this research provides a possible blueprint for policy makers to develop a better understanding of administrators in every district as well as possible support to help leaders become more effective personally and professionally.

Research Questions

This research hopes to answer three research questions.

I. What effect do self-care habits have on cognitive performance and decision making?
II. What are the self-care habits in place for administrators in Arkansas?
III. What job-related aspects of the role of educational administrators impede or challenge the establishment of positive personal care habits for leaders?

Overview of Methodology

This purpose of this study is to gain insight into human self-care through questions designed to gain an understanding of the lives, perceptions, and experiences of people serving as building-level educational administrators in Arkansas. A survey was administered to gather both quantitative and qualitative data specific to administrator self-care. Short-answer, multiple-choice, and Likert-scale questions were formulated to collect quantitative data specific to the

self-care habits chosen to represent the three tiers of Maslow's hierarchy (1943). The goal of these questions was to collect quantifiable data, such as the typical amount of nightly sleep they get, the number of glasses of water they drink, and the number of meals consumed at a restaurant weekly. Next, open-response questions provided the participants opportunities to answer qualitative questions seeking to better understand their personal experiences and perceptions. These questions were created to identify the job-related challenges that each participant perceived as competing with the establishment of healthy self-care habits and offer opportunities for the collection of experiences and personal opinions from participants. The survey was made available to practicing building administrators in every school district across the state of Arkansas. By making the survey available to all districts and schools, data could be collected across socio-economic, racial, and societal spectra from every region of Arkansas. Moreover, this provided data for comparison across multiple communities and diverse school systems while presenting a more holistic picture of the administrator experience across the state. Administrators received a link to a survey generated using Qualtrics software through the University of Arkansas. No personally identifiable information has been reported, but the survey questions allowed the researcher to code responses based on participants' answers including their location within the state and their demographic information.

Within this survey, participants had the opportunity to volunteer to be a part of a focus group conducted by the researcher. Participants who chose to volunteer provided their email addressed along with their responses. Potential participants in the focus groups were sorted according to their answers to the survey. One group was comprised of leaders whose answers suggested a strong presence of or value regarding self-care habits within their lives, and the other consisted of administrators who reported less-than-ideal practices. The sorting of these groups

allowed the researcher to meet two specific goals. First, participants tend to feel more comfortable in discussing their self-care with others whose answers suggest they have many commonalities. Second, the researcher had the opportunity to collect qualitative data that could reveal emotional, social, or personal differences between administrators whose self-reported habits are significantly different from one another. The members of the focus groups were not aware that they had been grouped based on their responses but simply knew that they had been selected through their expressed desire to participate as a result of their answers to the survey questions.

Positionality

Positionality, with regard to this research, is defined as the researcher's personal background, experiences, and motivation in the scope of this project. The act of identifying and addressing any personal or perceived biases with transparency lends greater validity and trustworthiness to the results of this research. Furthermore, in outlining the personal motivations for pursuing the study and the researcher's specific experiences relevant to this topic, the goal is to allow the reader to clearly identify any personal biases potentially brought to the study. This transparency allows the presentation of credible research that is constantly mindful of giving a voice to all sides involved.

Researcher's Role

I am a white male who has lived his entire life in the Southern United States, where I was raised by a teacher, and I later married a teacher. My initial formal educational training and experience came in the form of music education, and I was hired immediately out of college into a very large instrumental music program. As a member of an instructional team of 12 members, I spent many of my formative years observing the effectiveness of the different approaches and

methods of educators in many different settings. I began to observe what I perceived as a professional norm among colleagues who believed that success as a music educator was the paramount defining quality from which they determined the worth of themselves or others. This approach in others occasionally resulted in a professional devotion that competed with physical, emotional, and interpersonal aspects of life to which I personally assigned great meaning. The importance I placed on the cultivation of healthy relationships, emotional and spiritual focus, and intentional physical self-preservation contrasted so starkly with some of these individuals that I often found myself feeling inadequate and limited in comparison. It was shortly after this time that I developed a passion for leadership and the impact that a great leader can have on people, systems, and communities.

As I began to study leaders, I noticed a similar trend as the one I had noticed among the music educators that I had observed for years. Many of them denied themselves even the most basic necessities of life as a means of working that much harder to achieve their ultimate goal. In music education and in leadership, what I began to observe was these people often burst onto the scene as larger-than-life success stories. They were perceived as almost inhuman in their ability to accomplish much more than what others around them could. However, these same professionals often reached a point where their personal lives seemed to buckle under the strain caused by upholding this unrealistic perception of superhuman greatness. Broken marriages, severe health issues, emotional breakdowns, uncharacteristic personal or ethical lapses of judgment, and extreme withdrawal were just some of the circumstances that resulted from this never-ending push. This caused me to personally redefine what success looked like for me as a professional. I began to notice the power of the greatness that does not flash in a pan but rather continually inches forward in progress toward the greater good. When I observed these types of

individuals, I saw complete human beings whose greatness was not wholly encompassed within one aspect of their lives but rather through the entirety of who they were. This observation became the basis for my motivation to conduct this research.

Upon the selection of this topic for my research, I personally transitioned from the classroom, first filling the role of assistant principal and then principal. To my discouragement, I found that I was personally struggling to maintain the very habits that I was researching. My newfound personal values informed my thinking and the way I designed this study. As I have experienced my personal struggles with personal self-care in the role of building principal, this research has allowed me to build structure into my life and has added significant value to this research and the potential it has to help leaders across Arkansas.

Assumptions

To add credibility to this research, the pre-existing assumptions of the researcher are outlined and made clear in this section. First, this research was conducted with the assumption that there are educational administrators who struggle with at least one aspect of the self-care habits studied in this research. This assumption comes from experience in the field, the personal experience of the researcher, and conversations with those currently serving as educational administrators. Next, this research assumes that each educational administrator has the life experience and intelligence to personally understand, even if at a basic level, the importance of self-care. It seems logical that most educated adults would understand, at the very least, some of the medical value of maintaining a healthy lifestyle. Specifically, for the completion of this study, the researcher assumed that each administrator participating in the survey would answer honestly, that participants would do so willingly and not as a result of coercion or mandate, and that only the practicing building administrators who received the survey through email would

answer the questions and contribute data to the study. Another assumption is that the conversations within the focus groups would be honest reflections of the participants' views. The researcher structured both focus groups similarly as to avoid bias but allowed participant responses to shape and drive the conversations in the pursuit of the collection of true, organic data representative of those who work as educational building leaders in Arkansas.

Definition of Key Terms

- *Self-care habits*: Any necessary human regulatory function that is under individual control, is deliberate and self-initiated, and contributes to overall better health and physical performance. In this research, self-care habits were selected from the foundational tiers of Maslow's hierarchy of needs and include sleep, hydration, nutrition, exercise, stress relief, meditation and mindfulness, work–life balance, volunteerism and philanthropy, and relational belonging.
- *Educational Administrator*: For the sake of this research, this includes any professional serving as a building-level educational leader. This individual could occupy roles such as principal, assistant principal, dean, and so forth.

Organization of the Dissertation

This dissertation is broken into five chapters. Chapter 1 introduces the study and establishes the problem and need for research. Following this chapter is an overview of the background of the current research. The research presented frames the findings of this study. The paper also discusses the neurological and biological research that highlights the impact of not meeting fundamental human needs. As this research seeks to understand the state of self-care habits among educational leaders in Arkansas, the research presented in Chapter 2 provides a theoretical basis for the importance of proper attention and care for each habit. The research

presented shows the personal self-care impact on human effectiveness, specifically within the higher-level thinking, behavior, psychology, and physical preservation required to succeed in a role such as that held by educational administrators. The goal of this chapter is inspect the existing literature to find an answer to the first research question of this study: “What effect do self-care habits have on cognitive performance, decision making, and psychology?” The section following Chapter 2 outlines the methodology used to collect data for this research. This chapter details the collection of data from the participants and the mixed-methods approach to questioning through the use of a survey instrument and targeted focus groups. The selection of the methodology and the research instrument are explained in terms of their ability to collect sufficient and appropriate data to answer the research questions. Chapter 4 presents data collected as part of this study. Quantitative and qualitative data are both organized categorically to clarify the findings and attempt to provide insight into the three questions driving this research. Chapter 5 constitutes the culmination of the work and ties information presented in the preceding chapters together to position this research in the existing literature, closing with suggestions for future study and recommendations for implementation of these principles.

CHAPTER TWO—REVIEW OF THE LITERATURE

Introduction

The following sections represent the topics explored to further understand the impact that personal self-care habits can have on human cognition, decision making, psychology, executive function, and behavior. To demonstrate the significance of personal self-care, two primary topics are presented from the literature. The neuroscience of ethical decision making approaches one of the highest levels of decision making from a biological perspective and helps to set the stage for an analysis of the components that could be directly impacted by self-care. Next, the three passive self-care practices of sleep, nutrition, and hydration are studied to show their direct impact on the components and processes involved in the high-stakes decisions made by educational administrators. These habits, as well as active habits promoting safety and security, stress relief, exercise, and mindfulness, are described. Finally, the psychological and behavioral elements of the human experience are addressed through the need for love and belonging in habits of work–life balance, volunteering, and relational belonging.

Neuroscience of Decision Making

Before it is possible to truly appreciate the importance that basic physiological care can have on the high-level function of an educational leader, an understanding of the neurobiological processes involved is necessary. One of the uniquely human neurological processes is that of decision making. Within educational leadership, decision making is critical to success. On a daily basis, school leaders have to determine what is best for students, how to allocate resources, how to improve practice among other professionals, and how to navigate challenging situations. Understanding these decisions from a biological perspective sets the stage

for developing a deeper understanding of the impact that fundamental needs can have on higher-level function.

Originally, it was believed that there was a singular moral organ within the brain responsible for the processes associated with these types of decisions (Hauser, 2006). However, through the advancement of science and medicine, researchers have come to the conclusion that high-level mental processing results from the coordinated effort of several neurological components cooperating together (Greene, 2015). Under the more accurate understanding of decisions happening within biological subsystems rather than a single organ unilaterally in control, it is possible to study and understand the decision-making structures by understanding the neurological pieces that have a role within these subsystems (Greene, 2015). In an effort to avoid oversimplification, it must be stated that none of these neurobiological segments is solely devoted to decision making, but to understand the components individually, it is essential to see the part they play in the cooperative process.

For the sake of this research, it helps to view these neurological processes through their roles in the dual-process theory of decision making. Greene et al. (2009) proposed that the brain functions like a camera in that it uses two distinct operation modes to handle a dilemma—either an automatic emotional response or a more deliberately defined cognitive process. According to this theory, both intuitive emotional responses and more controlled cognitive responses play vital and sometimes competing roles (Greene, 2015).

To show this theory in action, Greene used fMRI imaging to study the brain function of individuals as they were exposed to two different trolley scenarios. The first of these, a classical impersonal dilemma introduced as “the trolley problem” by P. Foot (1967), places the reader as a bystander to an eminent trolley accident. The reader notices that a trolley is racing down the

track toward five railway workers ignorant of the danger they are in. The reader is standing next to a switch that will change the track, diverting the trolley from killing the five railway men. In diverting the trolley, however, the track will send the trolley down an alternate route where it will strike and kill an unsuspecting worker there. Greene reported that, in this study, most people approved of diverting the trolley (Petrinovich, O'Neill, & Jorgensen, 1993), a characteristically utilitarian judgment favoring the greater good (Greene, 2015). However, by slightly altering the details and exposing the subject to the "fat man" problem by Thomson (1985), the respondents find themselves in a personal dilemma, and the responses change significantly. In this scenario, the trolley is speeding toward the five unsuspecting workers' eminent death. The subject is on a footbridge above the track standing next to a large man. If the respondent chooses to shove the man from the bridge in front of the train, it would kill the large man but, because of his size, derail the oncoming trolley and effectively save the five workers.

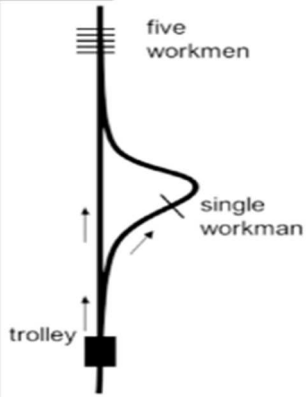

Figure 2. Pictorial representation of Foot's (1967) trolley problem (Greene et al., 2009, Figure 3).

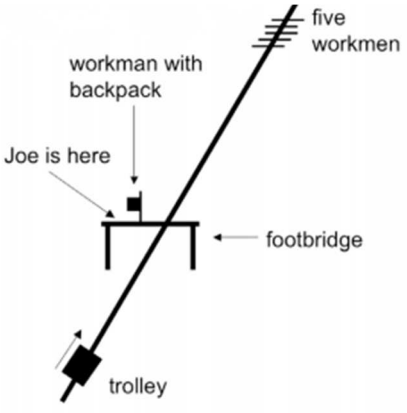

Figure 3. Pictorial representation of an adaptation of Thomson's (1985) “fat man” problem (Greene et al., 2009, Figure 1).

From a consequential perspective, both scenarios effectively choose the death of one or the death of five. However, Greene and his associates found that the overwhelming majority of people say that it is wrong to trade the life of the man who must be pushed from the bridge for the lives of the five (Greene, 2015). At its foundation, the conflict in both scenarios is based on the impossibility of choosing both outcomes despite convincing arguments for each. What seems to make the difference in these scenarios is the difference between the impersonal connection to death and the action of the personal dilemma where the reader directly and personally causes harm to another human being. According to dual-process theory, people base their decisions on both an automatic emotional response and a controlled application of utilitarian decision-making rules. Being responsible for the death or harm of another person elicits an aversive emotional response, but at the same time, cognitive reasoning favors the utilitarian option. In personal dilemmas, the emotional response is assumed to be too strong to be overruled by cognitive processes, whereas in impersonal dilemmas, the weaker emotional aversion may be subdued by cognitive control resulting in more utilitarian decisions. These scenarios are visible examples of the competing processes happening within the dual process functioning within two specific subsections of the prefrontal cortex (PFC).

To further understand the competition happening within the PFC during decision making, it helps to study the different thought processes and the neurobiological pathways where they are found separately. First, the brain is said to have a type of automatic function (Greene, Nystrom, Engell, Darley, & Cohen, 2004). This is comparable to the settings on a camera. This "point and shoot" way of thinking utilizes the emotional responses of the individual and can override or possibly influence a means of cognition based more on cost analysis. The neural pathways associated with this emotional intuition are largely housed in the ventromedial PFC, a subsection of the PFC, and the amygdala (Koenigs & Grafman, 2009). Several studies have supported this claim, including studies of patients with physical or psychological trauma, such as Phineas Gage (Damasio, 1994) and others. In several of these cases, impairment or damage to the frontal lobe had a smaller impact on cognitive function than on emotional control. In the case of Mr. Gage, a railroad foreman who survived an accident that drove a metal spike through his frontal lobe, there was little effect on his memory, his ability to complete mathematical calculations, or his communication skills, but the accident resulted in a dramatic alteration to his personality. This resulted in a "near animalistic disregard for social graces and an ability to appeal to his most base desires with regard for nothing else," which could be directly tied to the damage to these specific regions associated with the complexity of human experience (Damasio, 1994).

On the other side of the emotional, intuitive function of the ventromedial PFC connections with the amygdala are the more executive functions of another subsection of the PFC, the dorsolateral PFC, where more abstract thinking and cognitive control is housed. Bilateral activity increases in the anterior dorsolateral PFC (DLPFC) when participants judge personal dilemmas in a utilitarian way indicating that utilitarian judgments occur within cognitive processes mediated by the DLPFC (Kuehne, Heimrath, Heinze, & Zaehle, 2015). The DLPFC has a close

relation to social behavior, especially in decision making, as it regulates potentially counterproductive emotions in the context of social decision making (Kuehne et al., 2015). Moreover, DLPFC activity increases when the cognitive control necessary to override emotional responses is exercised during challenging personal or moral dilemmas (Greene, 2015).

Any understanding of the biological components operating within the subsystems in our brains is incomplete without studying the PFC, specifically, the two aforementioned subsections: the ventromedial PFC (VMPFC) and the DLPFC. The PFC, in its size and function, is one of the key components of the human brain that separates it biologically and cognitively from lower-level functioning brains in comparable species. The PFC occupies the front-most portion of the frontal lobe. It is especially large in humans and is involved in emotions and specific brain functions, such as abstract thinking and social behavior. Especially poignant to this research is the role the PFC plays in executive functions such as decision making and strategic planning (Paxton, Ungar, & Greene, 2011). The PFC consists of many pieces, but the most common division is based on the anatomical connectivity and functional specialization of the DLPFC and VMPFC sectors (Koenigs & Grafman, 2009).

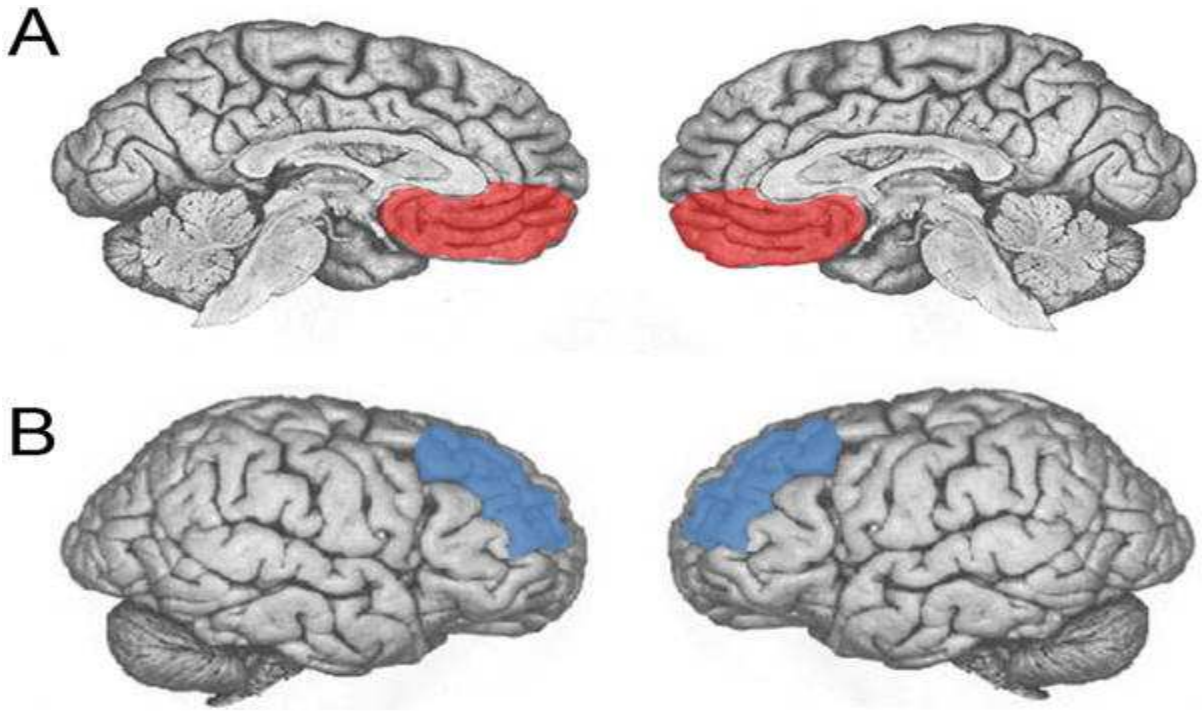

Figure 4. Depiction of vmPFC in red and dlPFC in blue (Koenigs & Grafman, 2009, Figure 1).

The role of the ventromedial PFC (VMPFC) in decision making is more clearly understood through the analysis of its targeted projections or the parts of the brain where it is delivering specific information. Three of these projections help to position the role of the VMPFC in this process. The first moves from the VMPFC to the hypothalamus and periaqueductal gray, which mediates the visceral autonomic activity most commonly associated with emotion. The next involves the ventral striatum, which is associated with reward and motivation. The final one connects with the amygdala, which is involved in threat detection and fear conditioning (Koenigs & Grafman, 2009). From these connections, the roles of emotion, reward and motivation, and threat and fear detection help to position the role of the VMPFC in high-level and ethical decision-making processes.

The DLPFC, in contrast, shows patterns of connectivity with specific sensory cortices and shares its densest connections with premotor areas, such as the frontal eye fields and lateral

parietal cortex (Koenigs & Grafman, 2009). In terms of the function of subsystems within a neurological structure of decision making, these connections suggest a functional hub for cognitive and executive functions. The function and interconnectivity of the roles of these two subsections of the PFC and their ancillary neural connections account for the specific and possibly competing cognitive processes of decision making where the brain approaches a moral dilemma through a utilitarian, cost-effect approach to measuring possible outcomes or a more intuitive emotional response to the parameters of the problem (Greene, Nystrom, Engell, Darley, & Cohen, 2004).

Table 1
Definitions of Neurological Terminology and the Role Each Plays in Decision Making

Term	Definition	Role
amygdala	the one of the four basal ganglia in each cerebral hemisphere that is part of the limbic system and consists of an almond-shaped mass of gray matter in the anterior extremity of the temporal lobe ("amygdala," 2018)	part of the limbic system within the brain responsible for emotions, survival instincts, and memory.
cognitive load	the total amount of mental effort being used in working memory	as cognitive load increases, brain function is recruited, resulting in fewer resources available to process slow, thoughtful decision making
dorsolateral PFC	a functional subsection of the PFC	within decision making, the DLPFC acts as a hub for executive function, abstract thinking, cognitive flexibility, and planning
episodic memory	a person's unique memory of a specific event	this memory encapsulates the perceived experience of an event and therefore can provide a basis or precedent for future decision making
executive function	the group of complex mental processes and cognitive abilities (such as working memory, impulse inhibition, and reasoning) that control the skills (e.g., organizing tasks, remembering details, managing time, and solving problems) required for goal-directed behavior ("executive function," 2018)	in its definition, executive function is clearly present throughout the decision-making process
frontoparietal network	the connection of the frontal and parietal lobes within the human brain exhibiting functions in attention and goal setting	the portion of the brain housing much of the decision-making and memory functions
gray matter	neural tissue, especially of the brain and spinal cord, that contains nerve-cell bodies as well as nerve fibers and has a brownish-gray color ("gray matter," 2018)	one of the functional pieces of brain tissue; where more grey matter is present, higher brain function and output is possible
neural plasticity	the ability of neurons to change in form and function in response to alterations in their environment	this encapsulates the brain's ability to adapt to environmental changes
PFC	the gray matter of the anterior part of the frontal lobe that is highly developed in humans and plays a role in the regulation of complex cognitive, emotional, and behavioral functioning ("PFC," 2018)	Central to this research, this subsection of the brain houses complex cognitive functioning specific to decision making and emotions.
short-term or working memory	the capture of experiences or information for short periods of time	short-term memory affects both small and large decisions by providing parameter by which to frame the current situation
ventromedial PFC	a functional subsection of the PFC	within decision making, the VMPFC houses and controls stimuli associated with risk, fear, and emotion and shares a strong connection with the amygdala

Impact of Physiological Self-Care on Human Function

When identifying and determining what should constitute self-care habits, the goal was to define the elements at the foundation of the human experience. Within the field of psychology, one of the oldest, most respected, and most referenced theories was developed as a part of Abraham Maslow's "A Theory of Human Motivation" in 1943. The hierarchy of needs was Maslow's attempt to place the motivating desires behind human behavior on a continuum and determine how they work in conjunction toward the ultimate goal of self-actualization (Maslow, 1943). This research utilizes Maslow's work as a framework for determining the needs that could impact the human experience of those in educational leadership. According to Maslow, the lower levels of the hierarchy represent deficiency needs and motivating people until they are achieved and fulfilled; therefore, these needs only increase in intensity until they are met. At the base of the hierarchy pyramid are the physiological needs. Maslow suggested that the foundational need for the physiological survival of a human being will trump any motivation beyond it until it is fulfilled (Maslow, 1943). In essence, Maslow argued that, until a person can realize the fulfillment of these foundational needs, their actions will remain in competition with the psychological need to remedy one of these basic deficiencies. The measurability, potential impact, and practicality of meaningful intervention shaped the ultimate decision when choosing which physiological components to measure as a part of this study. For the sake of this research, sleep, nutrition, and hydration were examined to determine their impact as basic needs on Maslow's continuum.

Sleep Deprivation

Since the invention of the light bulb, adults in the United States have gone from sleeping over nine to under seven hours each night (National Sleep Foundation, 2005). Sleep deprivation

is rapidly becoming a societal issue. In 2006, it was estimated that 20% of adults were operating in a state of sleep deficiency (Retey et al., 2006). Since 2006, a great deal about Western society has changed. Technological advances alone could easily account for this average increase. In the meantime, numerous studies on the effects of sleep deprivation have been conducted, and it is safe to assume that the general public understands the importance of sleep but often chooses to allow sleep to take a backseat to other competing pressures or desires.

A study of sleep deprivation begins with the understanding of the effects it has on the everyday function of human beings. The first and potentially most dangerous effect of sleep deprivation is on the motor skills and basic operational functions central to human life. The knowledge of the impairment caused by sleep deprivation to drivers has become largely mainstream, and research has shown that jobs commonly associated with a lack of sleep (e.g., truck driving and medical residencies) carry a significantly higher risk of problems related to human error when compared to other jobs (Goel, Rao, Durmer, & Dinges, 2009). Another way of gaining perspective on this issue is through studies comparing sleep-deprived subjects to those physically impaired by alcohol. In a 1997 study, a concrete comparison was made between the lack of sleep and blood alcohol content, and the researchers successfully predicted the comparable levels of impairment in both cases. Dawson and Reid (1997) found that, after 10 hours of wakefulness, each hour until the 26-hour mark was equivalent to an increase of 0.004% blood alcohol concentration. This finding revealed that a person who had undergone 17 hours of wakefulness was comparable to someone with a blood alcohol concentration of 0.05%, while a person who experienced 24 hours of wakefulness was equivalent in terms of performance to someone with a 0.10% concentration (Dawson & Reid, 1997). In the state of Arkansas, a driver

will be issued a DWI citation for operating a vehicle with a blood alcohol concentration exceeding 0.08%, thus underscoring the seriousness of this issue.

The next level to truly understanding the impact of the lack of sleep is to view deprivation through a cognitive lens. The idea that sleep impairs cognitive function is far from new. The first attempts to study the effect of sleep on cognition occurred prior to the turn of the 20th century. Cognitive performance effects from sleep deprivation are significant and numerous, including decreases in psychomotor response times, decreased effectiveness in attention-intensive performance, a decline in short-term and working memory, and decreased acquisition and learning, among others (Goel et al., 2009). Specifically, relevant to this research is the direct effect that sleep loss has on the dorsolateral PFC and the specific functions of behavioral alertness and attention control (Goel et al., 2009). This problem becomes more intense as decision making becomes more complex and requires multitasking and divergent thinking. Goel et al. (2009) listed assimilation of changing information, updating strategies based on new information, lateral thinking, innovation, risk assessment, maintaining interest in outcomes, mood-appropriate behavior, insight, communication, and temporal memory skills as skills specifically inhibited by sleep deprivation's effect on the DLPFC. In contrast to the specific careers impacted by the danger of inhibited motor control, the previous list is foundationally necessary to successful leadership and management.

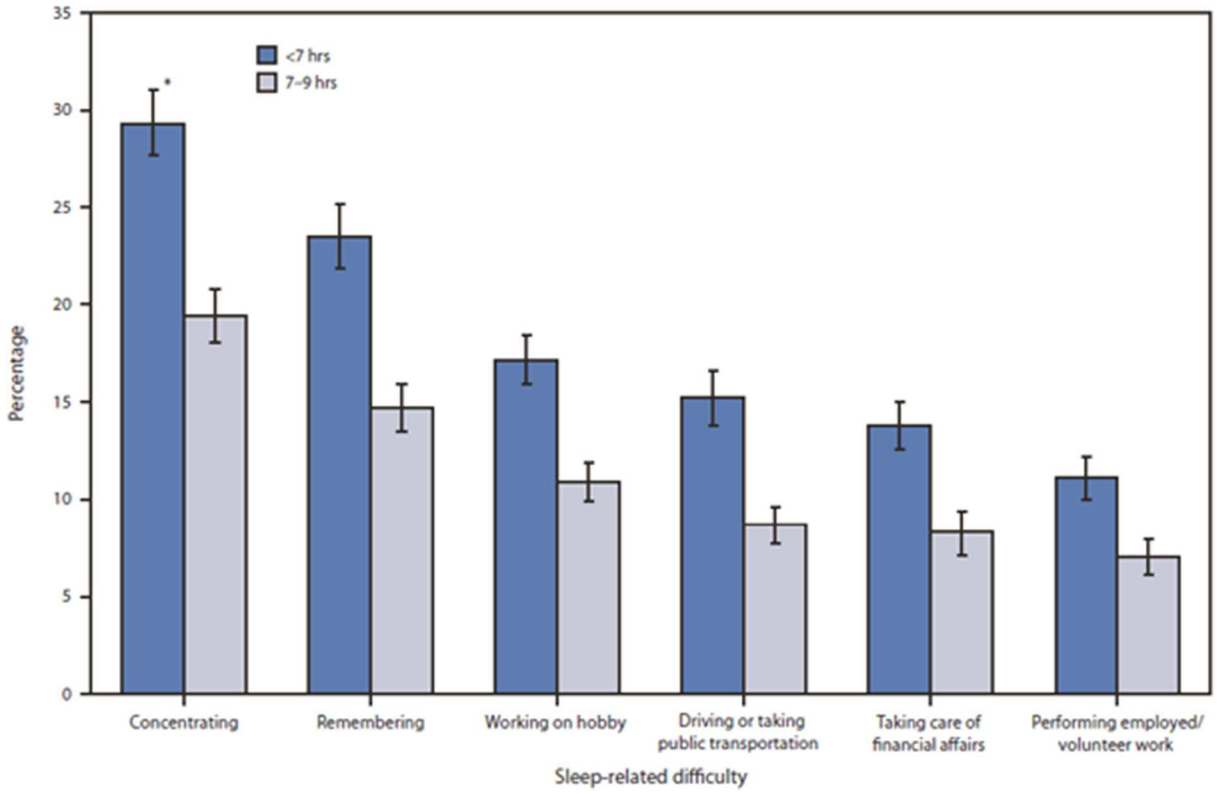

Figure 5. Adult reported sleep-related difficulty by average sleep duration (Morbidity and Mortality Weekly Report, 2011, Figure 2).

These skills represent the action-based decision-making processes of dual-process theory, but they are not alone in being impacted by sleep. Recently, researchers have demonstrated that sleep impacts the emotional pathways between the medial PFC and the amygdala. The healthy medial PFC acts in top-down control of the amygdala in order to produce context-appropriate emotional responses, but sleep directly impairs this top-down function (Acheson, Richards, & de Wit, 2007). S. S. Yoo and colleagues discovered that, after 35 hours of sleep deprivation, rather than the normal top-down control of the PFC, participants experienced a significantly heightened amygdala response to emotional stimuli. Moreover, research participants in this study showed a more negative evaluation of emotional stimuli from the International Affective Picture System when they were sleep deprived (Yoo, Gujar, Hu, Jolesz, & Walker, 2007). Another research team

discovered that sleep affects emotional judgments when they experienced a significant variation in their ability (as healthy adults) to accurately identify emotionally neutral stimuli with a much more negative view than a controlled group (Tempesta et al., 2010). While these sleep-deprived individuals were able to accurately identify extreme emotional stimuli, the study suggested that sleep deprivation impairs the ability to make subtle emotional evaluations and decisions after only one night of sleeplessness (Tempesta et al., 2010). Furthermore, only one night of acute sleep deprivation results in behavior comparable to PFC neuropsychological anomalies specifically associated with goal-directed behaviors and emotional responses that can be remedied by simply recovering sleep (Tempesta et al., 2010). Yang and Raine (2009) hypothesized that rule breaking, or ethical decisions would be impaired because of the PFC's role in this process.

While acute sleep deprivation that occurs by consecutive hours of wakefulness is useful for study, it tends to become less practical when it involves sleep deprivation beyond a 24-hour period. With regard to the self-care habits of educational administrators, multiple days on end of complete sleeplessness could be assumed to be rare at best. However, the concept of partial sleep restriction, which occurs when small amounts of sleep are consistently missed night to night, seems to be much more common in society and indicative of the challenges facing leaders. Recent studies have found that four plus days of less than seven hours of sleep per night begin to adversely affect cognition and neurological function (Goel et al., 2009). When this becomes more habitual, studies begin to truly reveal an impact on performance. When practiced over a two-week period, people sleeping six hours per night functioned at the same level as someone who had experienced 24 hours of acute sleep deprivation. When the hours per night is lowered to four, the neurological functioning becomes equivalent to 48 hours of acute sleep deprivation

after two weeks (Goel et al., 2009). Another potentially impactful finding indicated that partial sleep restriction reflected a wide discrepancy between the subjective feelings of sleepiness and fatigue and the measured cognitive performance (Goel et al., 2009). This is significant because it suggests that those who accumulate sleep deprivation a couple of hours each night do not perceive themselves as sleep deprived the same was as someone who experiences 24 hours of continual wakefulness. This misperception only exacerbates the issue in that it allows someone who is cognitively impaired and whose motor skills are functioning similarly to someone near the legal limit of blood alcohol concentration to continue without realizing that there is an issue. When coupling the idea of chronic sleep restriction with medical issues such as sleep apnea, restless leg syndrome, or others that result in sleep fragmentation, it becomes apparent that people who believe they are practicing healthy sleeping habits are instead possibly cognitively impaired.

Further complicating the issue of chronic sleep restriction is the difference in the effect it has over time on human beings when compared to acute sleep deprivation. When monitoring individuals undergoing sleep restrictions of four or six hours per night, studies have found that participants were affected throughout the entire day rather than simply at times when sleepiness or fatigue regularly sets in (Daan, Beersma, & Borbely, 1984). Furthermore, in contrast to the theoretical ceiling of the maximum effect of acute sleep deprivation, participants experiencing sleep restriction displayed progressive cognitive impairment relative to the number of days their sleep was limited (Van Dongen, Maislin, Mullington, & Dinges, 2003). Significantly, this progressive effect extends to individual perceptions of sleepiness, showing a reverse trend. While individuals become increasingly cognitively impaired as a result of accumulating nights of sleep restriction, they are simultaneously less aware of their progressively increasing need for sleep

(Van Dongen et al., 2003). This is especially troubling in light of studies that suggest that, when compared to acute sleep deprivation, substantially larger amounts of sleep are needed for cognitive and executive function to fully recover following numerous nights of sleep restriction. Unlike the more rapid recovery from acute sleep deprivation, chronic sleep restriction necessitates a near hour-for-hour recovery ratio of sleep before cognitive function is no longer impaired (Van Dongen, Rogers, & Dinges, 2003). What this means for chronically sleep-restricted administrators is that even a restful weekend may not return them to normal function. This could effectively open the door for the continuing of accumulated hours of sleep restriction without full recovery week after week, exponentially reducing effective cognitive and executive performance over time.

Health and self-care habits are often linked, and sleep is no exception. In a recent fMRI study, researchers linked acute sleep loss with the hedonistic stimulus in the brain related to food consumption (Benedict et al., 2012). Separate from the DLPFC or VMPFC, the anterior cingulate cortex within the frontal cortex was found to be highly active in obese people but also among those who anticipated eating high-calrie foods after being subjected to sleep deprivation (Benedict et al., 2012). A separate study highlighted what could be the baseline cause of the tie between sleep deprivation and obesity by showing that acute sleep loss was associated with significantly higher caloric intake and food consumption among healthy men (Brondel, Romer, Nougues, Touyarou, & Davenne, 2010). Building upon these findings. the results of another study suggested that acute sleep deprivation results in a higher likelihood for someone to prefer high calorie foods over healthy options (Nedeltcheva et al., 2009). It is possible to infer that sleep is a catalyst for success in other areas of self-care through the impact it has on concentration, motivation, and mood.

Nutrition

The role that nutrition plays in cognitive processes is significant but challenging to pinpoint. Because of the complexity of food, food cultures, and the well-researched physical impacts of what we eat, it becomes daunting to specifically pinpoint individual effects on cognition and decision making. With that said, some specific nutritional challenges intrinsic to educational leadership highlight neurobiological and practical influences on decision making that apply to this study. In his groundbreaking book *Thinking Fast and Slow*, Daniel Kahneman presented decision making and human cognition in completely different ways with specific attention given to the outside influences that many either take for granted or never even acknowledge. Among these, one of the most interesting studies he presented involved of a group of Israeli judges and their judgments on requests for parole (Kahneman, 2011). Kahneman found that the number of requests for parole granted significant peaked immediately following the judges' lunch. He went on to suggest that hungry judges gave less careful consideration to the details of the cases and would therefore choose the safe position of denying the parole request (Hunter, 2013). This research worked hand in hand with research looking at nutrition's effects on decision making from an economic perspective. This research uncovered a strong correlation between people's metabolic states and their approaches to risk behavior (Hunter, 2013). A culturally economic example of this occurs annually in Muslim countries during Ramadan. As Muslims fast during the days as part of their religious traditions, stock market volatility sharply declines (Hunter, 2013). This knowledge is powerful from an economic standpoint, but it speaks to the cognitive processing of human beings and supports the risk sensitivity theory proposed by DW Stephens in 1981. This theory has interesting implications for this research because it uses animal and human test results to propose that risk-taking is determined by the level at which

nutritional and survival needs are met (Stephens, 1981). This real-life example seems to offer support to the hierarchy of needs proposed by Maslow and was adopted as the foundation in the formation of this research, which asserts that higher-level thinking is dependent upon meeting basic physiological needs.

As with sleep deprivation, researchers are beginning to understand the neural impact of nutrition at a biological level. Recent research has highlighted that the Western diet, comprised of simple carbohydrates, high fat and sugar content, and high saturated fats, results in cognitive impairment (Francis & Stevenson, 2013). Diets high in fat, sugar, and saturated fat have been found to impact two sections of the brain in particular. The first of these, the hippocampus, plays a large role in the support of memory retention and episodic memory (Francis & Stevenson, 2013). Another neural section, central to this research, is the PFC, which has been established as a hub of decision making and the location of the competing limbic and cognitive systems responsible for the automatic and measured responses to problems, respectively. The negative aspects of the Western diet contribute to decreased function in the PFC that, in turn, plays into a "vicious circle" of obesity (Davidson et al., 2012). To appreciate this theory, one must first understand how the PFC functions in the control of food consumption. According to one study, patients with previously established decreased functioning in this area of the brain significantly increase their food consumption (Graff-Radford, Schwartz, Gavrilova, Lachance, & Kumar, 2014).

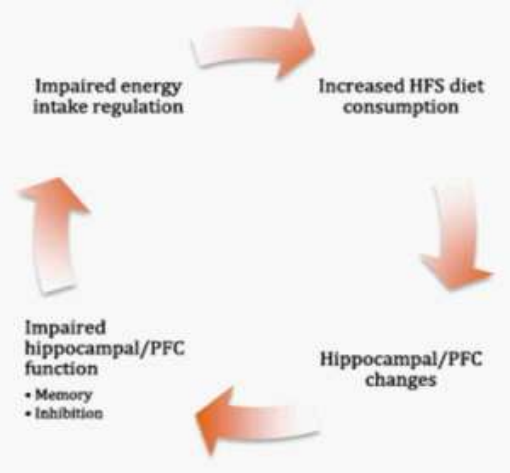

Figure 6. Davidson's "Vicious cycle" of obesity (Francis & Stevenson, 2013, Figure 1).

A separate study found that, among healthy adult men, there is a noticeable positive change in brain function and neuron activity when the men feel satisfied as opposed to when they are hungry (Tataranni et al., 1999). These results also support Maslow's theory that basic physiological needs will compete with higher thinking until they are met. In people who were successfully dieting, researchers found increased activity in the DLPFC, the hub of measured thinking and slow decision making, when compared to those not dieting (DelParigi et al., 2007). This research underscores the PFC's involvement in the control of food consumption while linking the DLPFC specifically to the process of successfully denying the reward of food consumption as part of a larger and more focused plan of dieting. Yet another function of both the PFC and hippocampus directly that relates to food consumption is energy regulation. Davidson et al.'s circle of habits occurs largely because of these connected functions in the same neural regions. When people consume a diet characterized by high fat, sugar, and saturated fats, the PFC and hippocampus are affected, thus impairing cognitive functioning. This type of diet also impairs the ability to regulate energy consumption, causing a larger craving for these types of high-energy foods, which initiates the circle all over again (Davidson et al., 2012).

While far from exhaustive, these studies indicate that the PFC is directly impacted by food consumption, especially the less desirable aspects of the Western diet. It also shows that, similarly to the accumulating nature of partial sleep deprivation, nutritional habits can begin to have lasting effects on neurobiology and develop a habit-forming cycle that continues and compounds the issues. This literature supports the notion that poor nutritional habits limit cognitive performance, negatively affect energy consumption and distribution, cause long term health effects, and even promote somewhat addictive habits.

Hydration

The third and final aspect of physiological self-care addressed in this research is that of hydration. When compared to both sleep and nutrition, hydration generally seems to get less attention and seems to have a smaller effect on the subjective assessment of personal mental performance (Ogino, Kakeda, Nakamura, & Saito, 2014a). However, hydration has been found to have an effect on brain size and structure (Kempton et al., 2009), mood (Armstrong et al., 2011), cognitive and motor skills (Watson, Whale, Mears, Reyner, & Maughan, 2015; Kempton et al., 2011), and even pain susceptibility (Ogino et al., 2014). The foundation for each of these issues lies in the biological impact of water deprivation on the human brain. First, according to Kempton et al. (2011), dehydration literally shrinks the gray matter, decreases blood volume, and increases cognitive load, especially within the frontoparietal network. The frontoparietal network and its connection to the top-down control of behavior and cognitive function from the DLPFC is especially meaningful for the role played in decision making (Ptak, 2012). Kempton et al. (2011) hypothesized that this cognitive load due to demand for a higher level of neuronal activity for a dehydrated person may not always result in diminishing cognitive function but causes the perception of fatigue from significantly higher levels of effort needed to perform at the same

level. However, a study of volunteers who participated in a driving simulation in a state of severe dehydration showed a significant difference in terms of decision making and motor skills, as they committed several more driving errors compared to a control group. In fact, researchers have reported that the dehydrated drivers' performance was similar in nature to those who had completed the same test while operating at the legal blood alcohol concentration level (Watson et al., 2015). This research becomes more compelling in light of the discovery of Bar-David, Urkin, and Kozminsky (2005), whose work suggested that school children showed increased cognitive performance issues the longer they stayed in a dehydrated state. Where there was little to no difference in cognitive performance at the beginning of the school day, the dehydrated students showed a substantial drop in cognitive performance when compared to their peers by the end of the school day.

Cognitive function and load can be easily identified as significant factors in the decision-making processes of educational leaders, but two additional effects of dehydration could add completely different complications to this process. First, water consumption has been tied to mood and the subjective perception of energy levels. While neither one ties directly to the competing neurological processes outlined previously, they both represent an emotional stimulus that could directly impact the choice a person makes in any given moment. Dehydrated individuals frequently report increased tiredness, noticeably higher fatigue, and more effort needed to concentrate and mentally focus on a task or decision at hand (Szinnai, Schachinger, Amaud, Linder, & Keller, 2005). In a study of young women who were dehydrated as a result of exercise or exercise with the addition of a diuretic, Armstrong et al. (2011) found that dehydration resulted in a measurable disturbance in participants' moods. These points are worth considering from two separate perspectives. First, an emotional response like mood alteration or

the emotional state that often accompanies the feeling of abnormal fatigue or sleepiness seems to tip the cognitive scales when applied to the dual-process theory of decision making (Greene et al., 2009). Where the competing processes of automatic, emotional VMPFC and measured, methodical DLPFC are combined with these outside emotional stimuli, it could be hypothesized that a different outcome could occur because of the setting of the decision-making process within the previously compromised state of the decision maker.

Finally, a very interesting study by Ogino et al. (2014) investigated the effects of dehydration on the pain experience within humans. Their results present some interesting points to consider. First, they found that significantly dehydrated individuals are negatively affected in their experience and perception of pain. What is especially poignant for this research is the hypothesis the researchers created after studying the subjective experiences of the participants. Among those studied, they found no significant difference in hunger, anxiety, or even mood but a very significant difference in the subjective perception of thirst. They attributed this survival instinct of severe thirst as a contributing factor to the changes in the pain experiences among those who are dehydrated. This seems to coincide with the ideas presented by Maslow—that psychology and, in this case, perhaps even neurobiology are impeded so long as foundational physiological needs are not being met. In fact, Ogino et al. (2014) contended that this survival instinct of severe thirst amplified the pain-related cerebral activity because of the similarly unpleasant natures of these experiences. Fascinatingly, they documented a significant increase in brain function within the VMPFC and amygdala upon the rehydration of these same people. The role that both of these neural structures play in a reward network associated with the emotional feelings of pleasure and relief were hypothesized as the reason for this increase in activity. Again, this finding is especially interesting in light of the goal of this research. Ogino et al.

(2014) found that denying a human need such as hydration would amplify a similarly unpleasant feeling of pain but, upon rehydration, would adversely trigger dopamine and emotional reward in one of the very neural subsections outlined by Greene and others as playing a central role in the decision-making process.

Impact of Safety and Security Self-Care on Human Function

Research supports that passive physiological needs have a substantial impact on brain function and the neural pathways associated with high-level decision making. However, these represent only the bottom tier of Maslow's hierarchy of needs and the human experience as a whole (Maslow, 1943). The next stop on our progression through the competing functions of the human cognitive experience are the higher-level, more active habits promoting safety and security. In terms of this tier of need this study focuses primarily on stress and the effect it has on human neurobiology and psychology. Branching out from our understanding of stress, two subcategories typically associated with stress management emerge: exercise and meditation (or mindfulness). These habits were studied as means of relief to stress but also as stand-alone habits capable of deepening the human experience and enhancing cognitive and executive performance.

Exercise

Exercise as a positive health habit is anything but revolutionary. American health has become a mainstream talking point included even in political discussions. However, a recent study found that fewer than half of American adults exercise to the standard set by the American Heart Association (Haskell et al., 2007). For those who regularly exercise, some of the more well-known benefits include reduced risk of heart disease, hypertension, and type-two diabetes

(Haskell et al., 2007). However, emerging research has begun to unearth the cognitive impact of exercise, which pairs this self-care habit with the purpose of this research.

As with other habits highlighted in this paper, exercise has a profound impact on the PFC and the executive functions of the human brain. In fact, studies have recorded increased executive function (Voelcker-Rehage, Godde, & Staudinger, 2011), attention (Hawkins, Kramer, & Capaldi, 1992), memory (Stroth, Hille, Spitzer, & Reinhardt, 2009), and speed of processing (Moul, Goldman, & Warren, 1995) after aerobic exercise.

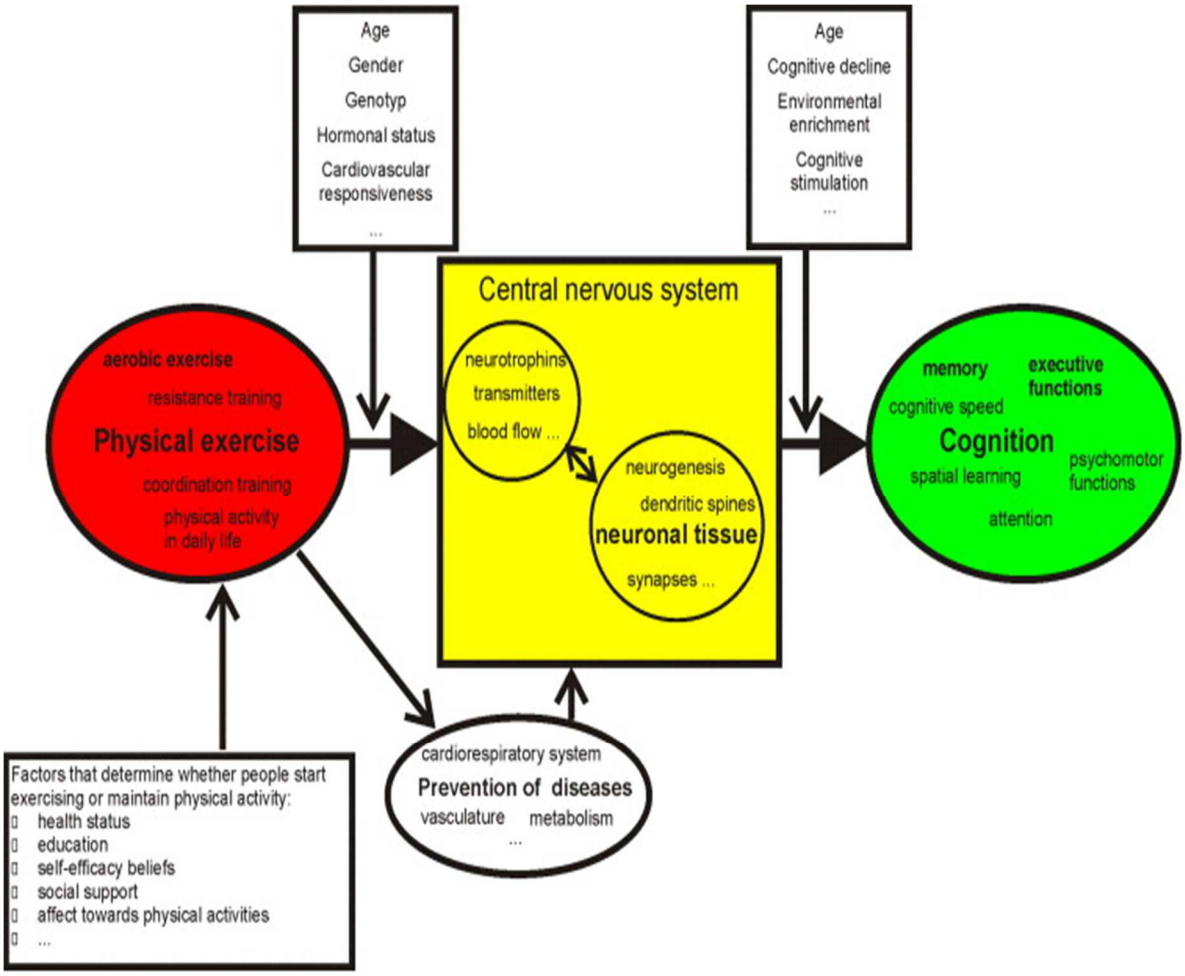

Figure 7. Summary of possible relationship between physical exercise, neuroplasticity, and cognition (Hotting & Roder, 2013, Figure 3).

Further studies have shown a correlation between exercise and the amount of brain matter. In one particular study of middle-aged participants, those who reported exercising at least twice a week had larger amounts of gray matter in the frontal regions of their brain over 20 years later (Rovio et al., 2010). These results suggest that healthy exercise habits not only promote higher levels of cognition in the short term but could actually make structural differences in neurological architecture down the road. Among participants older than 57 years of age, functional brain alterations had begun happening after only six months of aerobic exercise (Colcombe et al., 2006). Exercise interventions even showed the possibility of counteracting brain volume loss among older participants (Erickson et al., 2011). Research like this is meaningful for practitioners because it provides a blueprint for better health in the present and the future.

While future benefits are especially meaningful to individuals, the immediate impact of exercise is relevant to systems and job-based performance. When compared to control or sedentary groups, one particular study of 40- to 56-year-olds showed that, across age and fitness levels, every participant who participated in aerobic exercise exhibited significant increases in memory, specifically episodic memory (Hotting & Roder, 2013). Another study of younger participants aged 17 to 29 found significant increases in short-term memory after six weeks of regular exercise (Stroth et al., 2009). As the primary focus of this research, the PFC has shown significant responses to exercise. Specifically, the PFC is particularly sensitive to experience-dependent plasticity (Basso, Shang, Elman, Karmouta, & Suzuki, 2015). This study goes further to suggest that, as a result of this plasticity, aerobic exercise can enhance PFC function even among healthy adults in the peak of their cognitive functioning. (Basso et al., 2015). This is

supported by research that suggests that aerobic exercise produces increased performance of high-level executive control (Kramer et al., 1999).

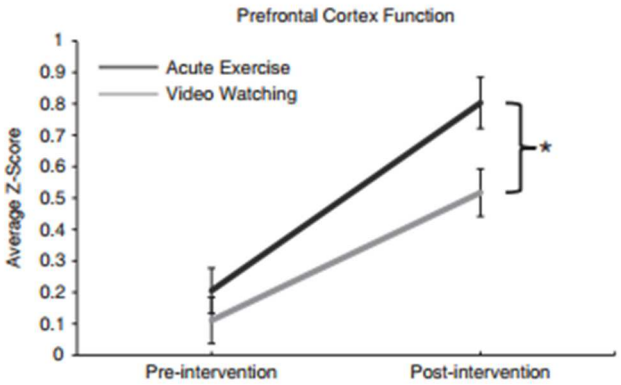

Figure 8. Comparison of PFC functioning following 60-minute interventions of acute exercise and a video-watching control group (Basso et al., 2015, Figure 2).

Convincing evidence exists that regular exercise has a positive effect on cognitive function (Hotting & Roder, 2013). However, beyond the promotion of future health and the improvement of current performance, exercise also produces psychological benefits. Studies have shown that regular exercise reduces reports of both anxiety and depression (Brosse, Sheets, Lett, & Blumenthal, 2002). After even short exercise sessions, participants report positive mood enhancement and an even more positive perception of their overall mood (Anderson & Brice, 2011). In fact, exercise is even being considered as an intervention for patients struggling with mental health on account of evidence that it reduces anxiety, depression, low self-esteem, and negative moods (Callaghan, 2004). There is further evidence to support the idea that aerobic exercise could have anti-depressant qualities in healthy adults (DiLorenzo et al., 1999) as well as in individuals struggling with depression (Griest et al., 1979).

Aerobic exercise provides safety and security through physical preservation. Again, the physical and health benefits of exercise are well known and are likely driving forces behind the adoption of this habit among those that practice it. However, the understanding that there is also a neurological component to the benefits of this self-care further bolsters the impact that it can have on individuals and organizations. As a conclusion to the discussion of meeting safety and security needs, the next section focuses on the need to understand the active pursuit of neurological preservation and development.

Meditation and Mindfulness

The practice of meditation offers one way in which a person can seek to meet the need of neurological or cognitive security and maintenance. Because many forms of meditative practice exist, research either applicable to all meditation or specifically to the practice of mindfulness is examined here. Mindfulness refers to a means by which an individual can attend to the present moment while allowing thoughts and emotions without judgment (Bishop et al., 2004). One specific goal of mindfulness is the ability to be metacognitively aware while redirecting distracting or wandering thoughts toward specific breathing or introspection practices (King et al., 2016). In line with this purpose, fMRI scans have revealed a specific neurological shift among individuals practicing mindfulness away from pathways through the amygdala and VMPFC to activation in the DLPFC and connections associated with control and execution (King et al., 2016); (Tomasino & Fabbro, 2016). This shift represents a move away from a region of the brain understood to assimilate both external and internal stimuli to form judgments (Ochsner, Bunge, Gross, & Gabrieli, 2002) to a more detached and objective section of the brain that houses analysis free from the impact of stimulus (Farb et al., 2007). This supports Greene's

dual-process theory (2004) and could represent a means of individual influence or control over the decision-making process by use of this technique.

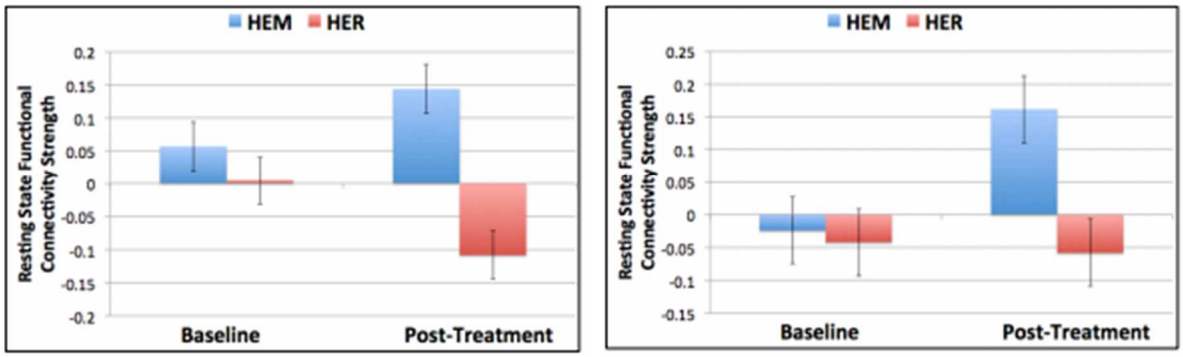

Figure 9. Representation of DLPFC activity and connectivity in baseline and post-treatment of health enhancement through relaxation (HER) compared with health enhancement through mindfulness (HEM) (Creswell et al., 2016, Figure B & C).

This research has many implications for educational leaders. First, research has provided evidence that a form of meditative practice can strengthen the critical cognitive elements of memory, attention, and executive function (Chiesa, Calati, & Serretti, 2011). Meditation promotes the practice and development of objective decision making while deepening self-control of the emotional stimuli that can influence leaders (Farb et al., 2007). This happens at the neurological level where brain activation shifts away from the amygdala and VMPFC associated with negative emotions (Davidson et al., 2003) and toward executive functioning and objective processing in the DLPFC (King et al., 2016). This provides a regulation of emotion (Doll et al., 2016) helpful for leaders in stressful situations or faced with challenging outside influences. Research on experienced mindful meditators uncovered a stronger ability in those who meditate to suppress automatic responses (Moore & Malinowski, 2009) and that, among both experienced and novice meditators, a single meditation session could lower the effect of physiological sources of anger (Fennell, Benau, & Atchley, 2015).

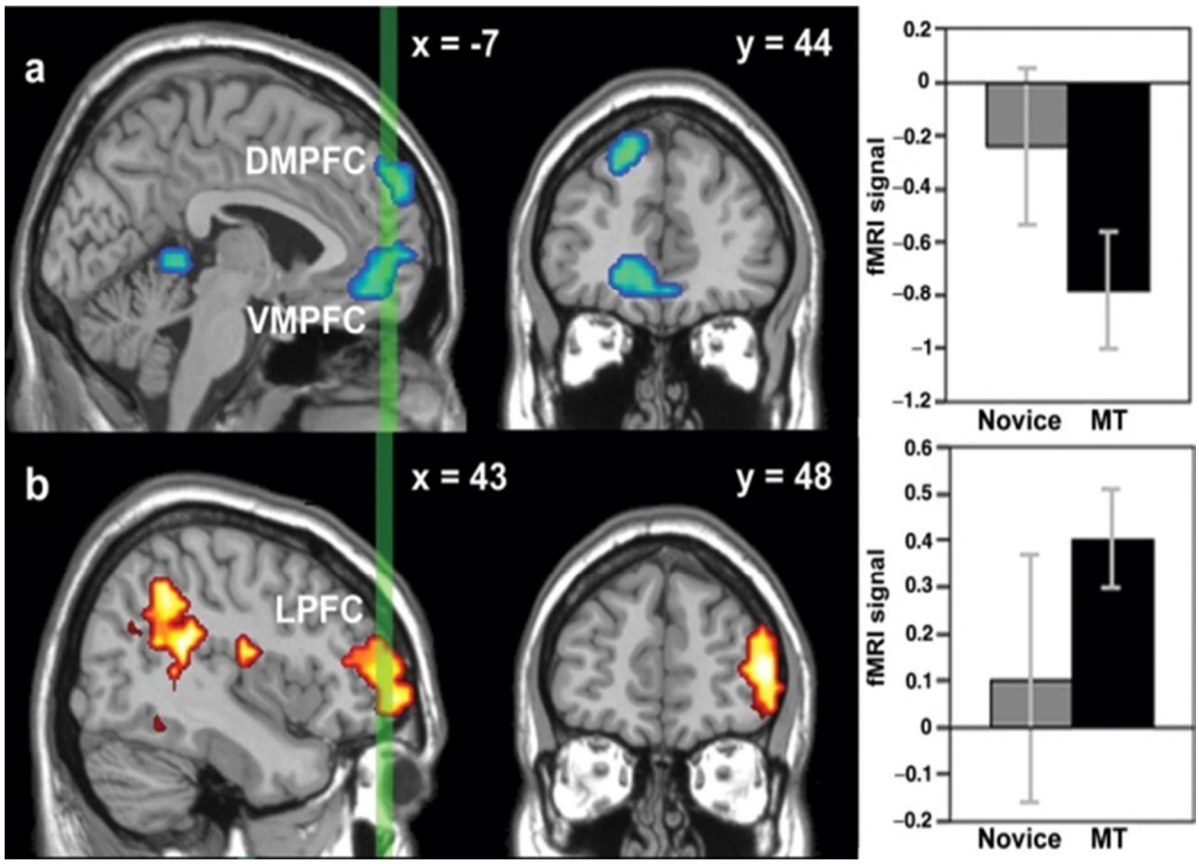

Figure 10. These images depict neural activation as a result of two types of mindfulness among novices and those having completed eight weeks of mindfulness training. Picture A shows decreased activation after narrative focus within the medial PFC, while picture B illustrates the increased activation in the lateral PFC following experiential focus (Farb et al., 2007, Figure 3).

One particular study brought mindfulness to schools as a means to address the challenges of stress and burnout. Teachers participating in this study reported experiencing significant changes in psychological symptoms, burnout, classroom organization, performance, and self-compassion (Flook, Goldberg, Pinger, Bonus, & Davidson, 2013). Another study using a five-week meditation training program with teachers resulted in benefits in terms of anxiety, emotional exhaustion, and stress (Anderson, Levinson, Barker, & Kiewra, 1999). Overall, these findings suggest that mindfulness is effective for teachers in promoting psychological health,

lessening causes of burnout, promoting good instructional practice, and developing a more positive self-perception overall (Flook et al., 2013). Mindfulness, or meditation, is unique from the other self-care habits within this study because it represents a much less universal approach to the meeting of one's personal needs than hydration, adequate sleep, and others. That being said, the research-based evidence is clearly in support of the processes and biological components necessary for effective decision making among leaders. Mindfulness training constitutes one more habit that could promote greater effectiveness and overall health among educational leaders and was therefore deemed valuable and worthy of inclusion in this study.

The first two tiers of Maslow's hierarchy specifically address needs that center around the physical preservation of self (Maslow, 1943). The researcher chose to differentiate between the passive physiological care and the active care unique to these two tiers. However, the next step in the progression toward self-actualization shifts to the social-emotional element of human needs.

Impact of Love and Belonging on Human Function

Of the three tiers of need, love and belonging present a particular challenge. Because of the unique psychological make-up of different individuals and the construction of their personal relationships, it is very difficult to assert universal needs as in the physiological or safety tiers. With this said, for the sake of this research, work–life balance, volunteerism and philanthropy, and relational belonging were targeted to gain an understanding of the psychological state of building administrators in regard to their need to belong and be loved. Actions impacting these categorical habits include time spent with family, time spent with friends, time spent on hobbies or leisure, ownership of "defining" roles and relationships, self-esteem, and others. Unlike the first two tiers, less research that makes connections between these relationships and social engagements with neurobiology exists. For this reason, a more psychological approach was

employed to understand the impact that such habits could have on overall mental health, fulfillment, and enjoyment of life.

Work–Life Balance

Before an understanding of the importance of work–life balance can be achieved, it must be initially defined. For the purpose of this research, the concept of work–life balance borrows from two separate definitions. Greenblatt defined work–life balance as "the absence of unacceptable levels of conflict between work and non-work demands" (2002, p. 179). A similar approach is to view the balance of both involvement and satisfaction in work and home life (Greenhaus & Singh, 2003). When combined, a picture of work–life balance becomes clear. In the business world, corporations have found work–life balance and their ability to adapt to cultural expectations necessary for the recruitment of talent. Increasingly, job-seeking individuals make employment decisions based on the ability of companies to meet the need for balance between personal and professional life (Dunne, 2007). Organizations that cannot adapt and meet these needs are feeling a "brain drain" where the most highly skilled professionals within an organization are seeking more flexible employment that caters to the need for a balance of professional and personal time (Dunne, 2007). On the other hand, Dunne went on to suggest that, when organizations meet this need, employees become "more responsive, more productive, and more committed to their employers" (2007, p. 29).

The imbalance of people's professional and personal lives has an adverse effect on performance. In one particular study of 1900 employees investigating the effect of the stress and workload associated with economic recession, researchers found that participants had twice the rate of absenteeism compared to people in the control group, from five to nine days a year (Hurst, Skinner, & Worral, 2009). This represents a change in the landscape of professional

expectations, but research points to a shift in the culture of families as well. Life for families in their homes is increasingly complex as more Western culture homes feature dual incomes and as females participate significantly more in the workforce (Crompton, Lewis, & Lyonette, 2007). This is compounded by increasing numbers of single-parent homes, the decline of extended families, and increased life expectancy, which results in greater responsibility in terms of care for elder family members (James, 2014). It appears that this is where the struggle of imbalance between work and life comes into play. James (2014) explained that, in a study interviewing participants on the subject of work–life balance, the most commonly cited outcomes of conflict between work and home included "missing out on children's activities, interrupted sleep patterns, stress and exhaustion impacting on relationships with children and partners, working when feeling unwell, missing out on leisure time and hobbies, and an overall reduced quality of life" (p. 289). These outcomes most likely contribute to the increased stress and psychological unhealth associated with a poor balance between work and life (Burnett, Coleman, Houlston, & Reynolds, 2012). This is supported by research that indicates causation between a positive balance of work and home and greater overall job and life satisfaction and overall improved mental health (Harr, Russo, Sune, & Ollier-Malaterre, 2014).

Volunteerism

A result of the focus on work–life balance is often a pendulum swing to the cleaning out of aspects of life deemed unnecessary to ensure as much possible time spent focusing on the two defined areas of work and home. However, aspects outside of these two arenas clearly play a primary role in the human experience and the psychological fulfillment of an individual. Among the most powerful of these is volunteerism. For the sake of this research, volunteerism is defined as time devoted toward the sustained support and benefit of others without seeking return.

Currently, in the United States, nearly a quarter of the population is involved in some form of formal volunteer activity as a part of an organization or a group, and over 70% of volunteers are under the age of 65 (Bureau of Labor Statistics, 2013). This suggests that many American citizens of working age are making a point of volunteering their time and effort. The reasons for this are many—and often individually motivated—but they may have universal effects on mental health and emotion. Volunteering provides an individual with many psychological benefits, including social interaction, personal fulfillment, self-efficacy, and a feeling of self-worth and reward (Piliavin & Siegl, 2007). Other studies have provided further support for the existence of mental health benefits of volunteering by revealing lower levels of depression among participants in altruistic and volunteering organizations and activities (Lum & Lightfoot, 2005). Pertinent to this research is the effect that volunteerism can have on human effectiveness. One particular study pointed out that volunteerism was associated with lower levels of burnout and stress while promoting psychological, emotional, and social well-being (Ramos, Brauchli, Bauer, Wehner, & Hammig, 2015). The same study went on to posit that, despite the allocation of time necessary for volunteering, there is a statistically significant decrease in conflict between professional and personal roles.

Relational Belonging

The final and perhaps most challenging self-care habit chosen to represent this tier of need consists of the practice of promoting relational belonging. Belonging can take many forms, both socially and emotionally. However, for most, the social connections we have in our most important relationships have a profound impact on our psychological make-up and behavior. Clearly identifying these relationships and promoting the development of those that positively impact life play a critical role in fostering happiness and fulfillment. Being part of and actively

participating in social groups constitute fundamental aspects of the human experience (Tuomela, 2007). However, fulfillment is not a product of the amount of time spent in these relationships as much as it is the connection and value of the relationships that receive our time. Stated in another setting, mental health is more strongly associated with our identification or sense of belonging within a group or relationship than the amount of time spent in it (Sani, Herrera, Wakefield, Boroch, & Gulyas, 2012). This becomes evident in disruptive relationships and families where increased contact can actually produce negative effects on physical, emotional, and mental well-being. The reverse of this is true for people who belong to a positive group of family. Identification with positive influences could provide motivation and encouragement to behave or live in a more positive way (Sani, Madhok, Norbury, Dugard, & Wakefield, 2015). The expectations of the members of the relationship or group have potentially positive or negative influences on the members of said group (Wakefield, Sani, Herrera, Khan, & Dugard, 2016).

Psychological research into the mechanisms that cause the greatest impact on human behavior build upon the idea of the social influence of relationships. Peggy Thoits proposed seven researched-based mechanisms: social influence or comparison, social control, role-based purpose and meaning, self-esteem, sense of control, belonging and companionship, and perceived support availability (Thoits, 2011). For the purpose of this research, we focus on role-based purpose and meaning, as well as and belonging and companionship. Thoits defined roles as "positions in the social structure . . . to which are attached reciprocal sets of normative rights and obligations (2011, p. 148). Having social roles that provide purpose in life demands responsibility in terms of self-care and the avoidance of behavior that could damage either party within the relationship. In addition, the extent to which people accept these roles as personally defining (e.g., as a spouse, parent, etc.) determines the guidance the role has upon their behavior

(Thoits, 2011). Another way of defining this is "mattering," or "the belief that one is an object of another person's attention, one is important to that person, and he or she depends on one for fulfillment of specific needs" (Thoits, 2011, p. 148). Belonging refers to the connection beyond the social constructs of role-based relationships with others in life. Belonging is earned, as it is not automatically granted but expressed as a means of acceptance into a relationship or group (Thoits, 2011). Depriving one's self of either aspect of these social and emotional mechanisms would lead individuals to miss out on a fundamental aspect of what it means to be human. However, psychological theory suggests that such mechanisms may be foundational to the regulation and promotion of positive human behavior and well-being.

Stress

Among the influences on cognitive and behavioral function described in this chapter, perhaps none has as significant an impact as stress. For this reason, each of the previously covered self-care habits shares a similar purpose: the relief of physical, neurological, emotional, or psychological stress. The first tier of self-care habits addresses passive care, which when neglected, results in many forms of unnecessary stress. Sleep deprivation decreases motor skills, cognition, and operational function similar to alcohol intoxication (Dawson & Reid, 1997), and it increases human error (Goel et al., 2009) while cognitively decreasing psychomotor response times, effectiveness in attention-intensive performance, short-term and working memory decline, and the capacity for acquisition and learning (Goel et al., 2009). Additionally, sleep deprivation specifically interrupts both DLPFC (Goel et al., 2009) and VMPFC (Yoo et al., 2007) function, thus contributing to difficulties in decoding and making emotional decisions (Tempesta et al., 2010) as well as navigating ethical dilemmas (Yang & Raine, 2009). Researchers have found that a lack of sound nutritional habits decreases the likelihood of decisions associated with mercy or

forgiveness (Kahneman, 2011), limits the number of decisions associated with a higher level of risk and reward (Hunter, 2013), decreases effective energy consumption (Davidson et al., 2012), and even negatively influences the molecular activity of the human brain (Tataranni et al., 1999). Finally, dehydration has been found to have an effect on brain size and structure (Kempton et al., 2009), mood (Armstrong et al., 2011), cognitive and motor skills (Watson et al., 2015; Kempton et al., 2011), cognitive performance (Bar-David et al., 2005), executive function to a degree similar to that caused by alcohol intoxication (Watson et al., 2015) and even pain susceptibility (Ogino et al., 2014). As clearly evidenced, each of these effects places stress on human function, which limits performance and ability. This highlights the choice of terminology in labeling these as passive habits. While all humans sleep, eat, and consume water, the habits they form around these activities significantly affect the amount of stress they experience.

Once an individual pays an appropriate amount of attention to healthy habits that passively limit stress, the next tier of needs actively combats the effects of stress. Exercise actively reduces risk for many physical stressors (Haskell et al., 2007) and actively promotes executive function (Voelcker-Rehage et al., 2011), attention (Hawkins et al., 1992), memory (Stroth et al., 2009), speed of processing (Moul et al., 1995), and production of gray matter within the human brain (Rovio et al., 2010). Exercise also actively enhances mental and emotional health by reducing reports of anxiety and depression (Brosse et al., 2002; DiLorenzo et al., 1999; Griest et al., 1979), enhancing the perception of overall mood (Anderson & Brice, 2011), and reducing low self-esteem (Callaghan, 2004). Meditation decreases emotional overstimulation (Ochsner et al., 2002) and increases cognitive control (Farb et al., 2007) while positively impacting anger, burnout, organization, performance, and self-compassion (Fennell et al., 2015; Flook et al., 2013). These habits are defined by their active attack on stressors and their

existence as means of promoting positive health. However, without first meeting the needs within the first tier, the resulting stress could prove difficult to overcome, making it more challenging to initiate habits within this tier.

As suggested in Maslow's "A Theory of Human Motivation" (1943), only upon the realization of the bottom two tiers can individuals address the next level of needs, which deals with the relational connectivity central to the human experience. However, not unlike the previous tiers, the needs associated with belonging and love eliminate stress and promote a healthy, meaningful existence. As a result of meeting these needs, we see more responsive, productive, committed professionals who exhibit lower absenteeism (Hurst et al., 2009), greater overall job and life satisfaction, overall improved mental health (Harr et al., 2014), feelings of personal fulfillment, self-efficacy, and self-worth and reward (Piliavin & Siegl, 2007), and improved psychological, emotional, and social well-being (Ramos et al., 2015). Each tier of self-care habits responds to a human need, which if denied, will result in stressors that demand attention and starve other aspects of human performance and happiness. As the linchpin behind the measurement, adoption, and practice of these habits, the effect of stress on effectiveness and performance serve as the final piece of the literature review that provides the foundation of this research.

The effect of stress on human cognition emerged in early studies around World War II when pilots who were well known for their skills often crashed as a result of atypical mental errors during the stress of battle (Broadbent, 1971). Through these studies, results suggested that stress impaired complex, flexible thinking while actually enhancing more simple rehearsed tasks (Arnsten, 2009). Eventually, further study in neurobiology associated the impaired performance with the specific functions of the PFC (Arnsten, 1998).

Stress is responsible for hormone production, which in turn, results in the impairment of specific brain regions, the rerouting of neural pathways, and even architectural changes in brain regions (Arnsten, 2009). Among the regions of the brain most susceptible to stress and the resulting hormonal changes is the PFC (Arnsten, 2009). Both acute and chronic stress result in a reallocation of neural resources from the DLPFC where executive, higher-level thinking processes occur and provide top-down control, as opposed to areas such as the amygdala; connections in this region also regulate emotional stimuli (Shaozheng, Hermans, van Marle, Luo, & Fernandez, 2009).

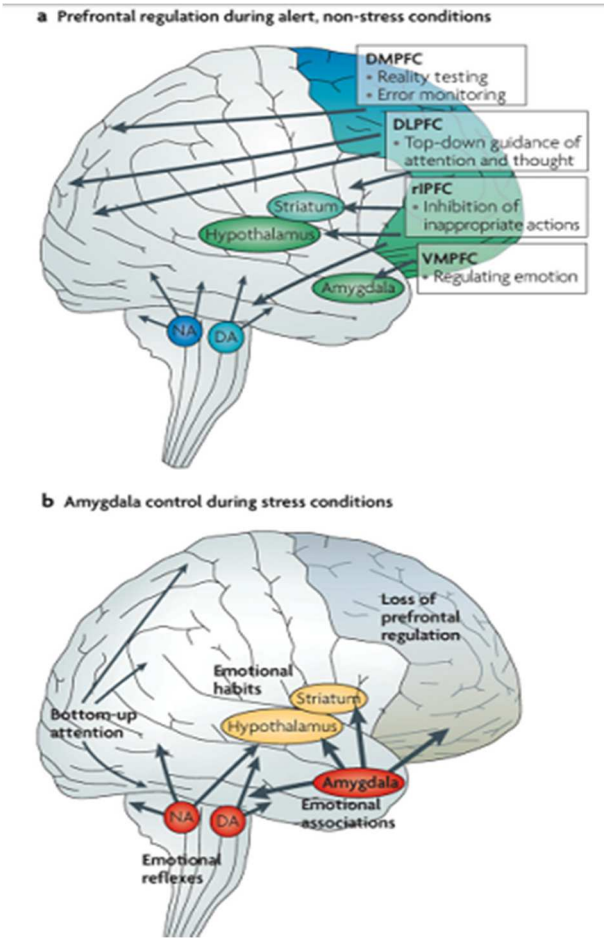

Figure 11. Differences between the brain's typically slow, thoughtful PLC control (pictured above) and the structure for rapid, emotional responses (pictured below) formed from control shifting to the amygdala during stress (Arnsten, 2009, Figure 1).

This supports the dual-process theory of decision making because one of the primary connections with the amygdala occurs at the VMPFC where the emotional pathways compete with the cost-analysis processes associated with the DLPFC (Greene et al., 2004). Simplified, this suggests that acute and chronic stress can contribute to higher-order cognitive deficits while leaning the decision-making continuum toward more emotional and impulsive responses (Shaozheng et al., 2009). In this sense, chronic stress weakens the structures that respond positively to stress while strengthening those responsible for more negative responses (Arnsten, 2009). This provides support for the first of two premises for unethical decision making. The first premise comes from the well-known fight-or-flight response to human stress (Cannon, 1932). When this concept is applied to all stress, the primary human responses seem to be antagonistic, aggressive, or competitive (Selart & Johansen, 2011). This emotional psychological response could be explained by the neural reallocation from utilitarian structures to emotional, intuitive sections of the brain.

Further support for the effect of stress on high-level cognitive function is found in the impact it has on working memory. Working memory refers to the ability of the brain to retain and experience what has just occurred or to recall a past experience and to use this to regulate behavior, thought, and emotion (Goldman-Rakic, 1995). This is a critical step in the top-down processes unique to the PFC (Thompson-Schill, 2002). When this process breaks down, the brain starts to function in a bottom-up manner, where sensory stimuli such as noises, sights, and movement take control over mental processing (Arnsten, 2009). Clearly, this impairment to working memory and top-down processing challenges the ability of the brain to work through the cognitive process necessary in measured decision making. From a psychological perspective, we see this in the exhausting effect that stress can have, which results from the need for higher

cognitive function for self-regulation and focus, which in turn, steals from other areas of focus. This supports a second premise behind lapses in ethical behavior, basically that ethical behavior is taxing and requires effort, energy, and self-regulation (DeWall, Baumeister, Gailliot, & Maner, 2008). The mental impediment associated with stress could provide a true challenge to this stance on ethical decision making.

While stress is clearly detrimental to the decision-making process, the effects it can have over time can be cause for further concern. In animal studies, long-term stress has resulted in structural changes in the PFC, such as spine loss and neuronal atrophy (Cook & Wellman, 2004; Radley, Sisti, Hao, Rocher, & McCall, 2004). Depression is often associated with a high concentration of stress-producing hormones typical in instances of prolonged stress (Holsboer, 2000). Stress exposure has a high correlation with maladaptive behaviors, such as drug addiction, smoking, alcoholism, and obesity (Arnsten, 2009). In seeing stress as a progression from a neuronal change in the brain, to a psychological change, to a possible behavioral change, it is easy to see the potential impact on cognitive and executive function. This understanding is powerful from a cultural or business perspective because of the erosion that stress could cause on performance and even ethics. Understanding the significance of stress on human function and performance, self-care habits that can either passively limit or actively attack stressors become even more meaningful in their promotion of healthy, more effective leaders.

CHAPTER THREE—INQUIRY METHODS

Introduction

The purpose of this research is to understand the importance of self-care habits on human function, gain a deeper understanding of the habits of educational administrators in Arkansas, and explore the job-related influences contributing to the adoption of the habits in place. In the literature review, the research presented highlights the physical effects of physiological habits, sleep deprivation, hydration, and nutrition on the neural processes associated (through neurobiological studies) to be central to the ethical decision-making process. Moreover, several studies have provided support regarding the impacts of the security and safety habits of stress relief, exercise, and mindfulness or meditation. Collectively, research on the impact of these self-care habits has revealed a correlation between A) impaired function in the separate intuitive and emotional neural pathways of the VMPFC and amygdala and B) the utilitarian, cost-analysis pathway of the DLPFC and its connected cortices, which are critically important to complex neural processing (Greene, 2015). Greene asserted that even morality and ethics are nothing more than these potentially altered competing biological mechanisms (Greene, 2015). In addition, habits related to the personal and emotional connections behind the psychology of the human need for belonging and love have been shown to have an impact on behavior, mental health, and psychological well-being.

The importance of self-care habits as part of this study is framed in Maslow's hierarchy of needs (1943). Abraham Maslow established this psychological continuum with the idea that each level of the pyramid must be realized before the next can be truly accomplished (Maslow, 1943). As a cornerstone of modern psychology, this research serves as the foundation of the literature review and the design of this study. The first tier of the hierarchy consists of the

physiological needs that, for this research, encompass the three passive self-care habits of sleep, hydration, and nutrition. In addition, a more active group of self-care habits—exercise, relaxation, and stress relief—were studied to examine their impact within Maslow's second tier of safety needs. Finally, Maslow's third tier of belonging and love were examined in terms of the work–life balance, volunteering, and relational belonging within the personal lives of educational leaders. In conjunction with the biological impacts of the more physiological habits within Maslow's first two tiers, the third tier lays the foundation for the personal and emotional stability needed for any progress toward self-actualization. Maslow's theory suggests that denial of these fundamental human needs could inhibit a person from progressing to the highest levels of the human experience and will potentially compete against the goals or actions that a person is trying to complete in their absence. While the research suggests that these lower-level needs impact the functional ability of individuals to perform the high-level aspects of a job, there are implications for the general happiness and contentment of a person who is missing these foundational pieces as well. If basic physiological and psychological elements of what Maslow deemed to be necessary to a healthy human experience are missing, it is plausible to assume that a strained work–life balance, low job satisfaction, high stress load, and burnout could result.

To collect quantifiable data on administrator habits while subsequently collecting qualitative data on participants' perceptions and experiences, this study employed a non-experimental, mixed-methods research design utilizing a survey instrument and two focus groups of practicing building administrators in Arkansas. Quantitative data were collected on specific habitual practices among participants through multiple-choice and Likert-scale questions, while open-ended sections of the survey asked participants to explain their experiences within their role that impact the formation of the habits they employ. For the focus groups, the volunteers

were divided by using their responses to the aforementioned survey. These groups discussed self-care, their perspectives on how it impacts and competes with their professional duties, and how they value or work toward improved care for themselves as human beings. Ultimately, the goal of data collection in this research was to assess the self-care habits of the leader, examine motivating factors and potentially competing paradigms of these habits, and gain a deeper understanding of what could inhibit educational leaders from employing good practice.

Research Questions

The first research question guiding this study is as follows: "What effect do self-care habits have on cognitive performance and decision making?" To answer this question, current research studies in neurobiology, cognitive function, and psychology were collected and presented in the literature review of this research. The next research question in this study was formulated as follows: "What are the self-care habits in place for practicing building administrators in Arkansas?" In order to answer this question, quantitative data were collected as a part of a survey made available to all practicing building administrators throughout Arkansas. The survey questions targeting this research goal did not ask for opinions or perceptions but for information about the practice for participants. Examples of this would include the average number of hours sleep they get nightly, the number of glasses of water they drink daily, the number of times they eat at a restaurant weekly, among others. In order to collect data to better understand the third research question ("What job-related aspects of the role of educational administrators impede or challenge the establishment of positive personal care habits for leaders?"), open-ended questions were created to ask participants to reflect on whether or not being an administrator has changed their health, their lifestyle, or other aspects of their lives. Finally, the participants were asked if they wished they could change certain aspects of their jobs

in order to make it easier to practice healthy lifestyle habits. Upon the completion of the survey, administrators were asked if they would be interested in participating in a focus group to further discuss self-care for educational administrators. From those who chose to participate, two groups were formed to further address research question number three while allowing for their personal voices to be added to the data collected from the survey.

Research Sample and Data Sources

When considering potential samples for this research, the main concern was the diversity within the state of Arkansas. The state is primarily rural but has some urban regions where schools and the roles of administrators could differ significantly from those in other parts of the state. Additionally, a number of education cooperatives serve the state, and each has particular functions adjusted to meet the needs of the regions they serve. In order to collect data that genuinely represented the state and administrators in many types of schools and districts, the choice was made to distribute the survey to all practicing building leaders in Arkansas. The state of Arkansas maintains lists of the contact information for all practicing building principals. To include assistant principals and deans of students, the Arkansas Department of Education provided the most current contact information for leaders based on state registration from the previous school year. Unfortunately, this list is not as regularly monitored as the information for building principals. The survey was originally distributed to 2,068 email addresses included in both databases provided from the Arkansas Department of Education. After the initial attempt, 204 emails bounced back. All of these email addresses were cross-referenced with individual school websites and systematically corrected or omitted where appropriate. After revision, a total of 1,939 practicing building administrators received the survey as a part of this research, including currently practicing principals, assistant principals, and deans of students who were

either listed in the Arkansas Department of Education database or identified through the website affiliated with their school districts. The sample did not include district-level administrators who had been promoted but had previous building experience. It also did not include retired building-level administrators. The study was completely voluntary, and participants were not granted access to the questions until they had actively accepted the conditions of the University of Arkansas IRB-approved informed consent form. As part of this informed consent, potential participants were made aware that any information collected in the survey would be kept confidential and that the participants would not be personally identifiable.

Data for this research were collected as both numerical quantitative data and qualitative data. Questions one through eight of the survey were used to collect demographic data on participant gender, ethnicity, age, years of building administrator experience, current job title, the make-up of their respective school and the county in which they work. Excluding only the final four questions, the primary purpose of the survey was to ask respondents to report on their personal practice within selected areas aligned with Maslow's hierarchy of needs (1943). These data sources helped the researcher arrive on an answer to research question number two: "What are the self-care habits in place for building administrators in Arkansas?" However, for question three ("What job-related aspects of the role of educational administrators impede or challenge the establishment of positive personal care habits for leaders?"), there were two specific means of data collection. The first method involved the final four questions of the survey, which were formulated to provide opportunities for open-ended reflection on the experience behind the reality the participant reported in the preceding questions. These four questions provided rich insight into the third research question but ultimately felt inadequate in terms of capturing the qualitative experiences behind the data. As a result, the choice was made to add a final prompt

allowing each participant to willfully opt into a focus group session moderated by the researcher. These focus groups provided qualitative data to be collected in real time during discussions around the topic of self-care rather than simply relying on open-ended responses within the survey.

Research Design and Rationale

This study utilizes a non-experimental, mixed-methods design collecting both qualitative and quantitative data. According to Cresswell (2008), quantitative research is "educational research in which the research decides what to study; asks specific, narrow questions; collects quantifiable data from participants; analyzes these numbers using statistics and conducts the inquiry in an unbiased, objective manner" (p. 46). The survey provided the quantitative data collected on the current self-care habits of administrators. The questions asked participants to quantify the number of times that habits occurred using Likert-scale ratings. A survey is an appropriate tool for this data collection because it can be transmitted electronically, permits participants to do so anonymously, allows for ease of access and collection of data, and provides potential participants an easy opportunity to choose whether or not to be a part of the study. The survey was distributed online using Qualtrics through the University of Arkansas. Qualtrics is easy to use, allows participants to answer at their convenience, and facilitates data retrieval.

In addition to the collection of quantitative data, open-ended questions and two scheduled focus group sessions gathered qualitative data specific to participants' perceptions and experiences. Cresswell (2008) defined qualitative research as "educational research in which the researcher relies on the views of participants; asks broad, general questions; collects data consisting largely of words from participants; describes and analyzes these words for themes; and conducts the inquiry in a subjective, biased manner" (p. 46).

This research utilized a phenomenological design to collect experiences from the lives of practitioners on self-care within their role and how their habits affect them as individuals. This design allowed each individual experience to be considered while describing the essence of the phenomenon (Creswell, 2013). Specifically, the phenomenon researched was self-care in the professional and personal function of educational administrators. This informed both the second and third questions defining this research while tying individual experiences to the quantitative data. The qualitative data collected through the Qualtrics survey instrument allowed for large numbers of qualitative responses to be collected in response to specific questions. This data set was meaningful in tying qualitative responses to specific individuals and their reported self-care. However, on its own, this approach left out the potential to explore the phenomenon within small heterogeneous groups, which is an important element of a strong phenomenological research design (Creswell, 2013). This was accomplished in this study through the use of two focus groups of four and five members, respectively. A total of nine data sources fell within the suggested recommendations from existing research for quality data collection (Van Manen, 1990). The focus groups provided the researcher the opportunity to moderate and direct the conversation in a particular way to collect meaningful data while providing a unique setting where participants had the opportunity to engage in dialogue and respond to one another about self-care within their roles as educational leaders. Three different forms of data collection, along with a review of the existing literature, allowed for triangulation, thus increasing the validity and quality of results (Marshall & Rossman, 2016).

Data Collection Instruments

The quantitative and large-scale qualitative data were collected using an Internet-based survey built using Qualtrics software. Participants received a link to the survey, which they could

complete on their own time using either a computer or a smart device. Ravitch and Carl asserted that the use of surveys or questionnaires has many advantages, including cost-effectiveness, the ability to collect data efficiently from multiple sources and locations, and the possibility of gathering significant amounts of information from a large population in a short amount of time (Ravitch & Carl, 2016). Creswell stated that the purpose of survey research is "to generalize from a sample to a population so that inferences can be made about some characteristic, attitude, or behavior of this population" (2014, p 157). A survey became the primary data collection tool for this research because it provided digital access to data from a large population across the state. Because of the busy schedules of those contacted, the survey was conducted longitudinally to collect data over the course of four weeks at the leisure and convenience of the participants.

The survey consisted of 45 questions intended to be answered online. For the participants, questions were not broken up or labeled in sections. However, the questions were grouped according to the data they were designed to collect. Questions one through eight of the survey collected demographic data on participant gender, ethnicity, age, building administrator experience, current job title, the make-up of their buildings, and the Arkansas county where their school operates. Questions nine through 41 were designed to collect quantitative data specific to self-care habits chosen to represent Maslow's first three tiers on the hierarchy of needs (1943). Some questions were formulated to provide a general picture of overall administrator health, while others address sleep, nutrition, and hydration, in this order. Next, the survey addressed the second tier of safety and security needs by targeting exercise, stress relief, and meditation. The final tier of belonging and love was addressed through questions seeking data on work–home balance and time spent with loved ones. For the remaining four questions, qualitative data were collected through open-ended questions. These questions asked each individual to express the

specific aspects of their role that they saw as encouraging or discouraging strong self-care habits, how they would alter their role to enable better habits, and, finally, who possessed the ability to make the changes necessary to foster a healthier lifestyle in their jobs.

Originally, the survey instrument contained a significantly larger number of questions intended to collect qualitative data specific to individual experiences. This design was abandoned in favor of a shorter survey and the addition of two focus groups discussing the phenomenon of self-care within the profession of educational leaders. Also, a draft of the original survey was distributed to five reviewers for suggestions to improve data collection prior to distribution. These focus groups were designed to record the personal experiences of practicing administrators, to analyze their experiences in light of other leaders with similar and dissimilar self-care habits, and to add depth to the data through a mixed-methods approach to data collection. The protocol for the focus groups followed the subject–object format developed by Robert Kegan as part of his work in adult development and self-authorship (Lahey, Souvaine, Kegan, Goodman, & Felix, 1988). Kegan theorized that, over time, adults develop a keen ability to formulate perspectives and make meaning of the world in order to cope with the demands of the complexities of their lives (Berger & Fitzgerald, 2002). According to this theory, adult cognitive growth occurs through the process of identifying the unspoken or unseen ways in which we view the world in a way that an observer can view and study these perspectives as objects (Kegan, 1982). Within the focus groups, participants were asked to identify times when they felt specific emotions in their jobs, to record those experiences, and then to begin our discussion around those emotions while examining everything about the experiences specifically through the lens of their health and self-care. This approach was explained at the beginning of the focus group sessions to allow the participants the opportunity to speak about specific

experiences, to assign value to those experiences, and to begin connecting that value from the experience to the people they were at that time. The second half of the focus group protocol directed the conversation specifically to the aspects of the job that challenged the participants in the pursuit of their own self-care. The goal of this portion was to gain a deep understanding of the commitments or challenges that each person experienced while having a discussion around self-care within the role of principal.

Data Collection Methods

This study targeted practicing building administrators across the state of Arkansas. Following IRB approval, the researcher collected email addresses from the Arkansas Department of Education. For building principals, the Arkansas Department of Education maintains a regularly updated list of contact information. However, for assistant principals and deans of students, the emails were collected as part of a yearly registration process for each school district that is less regularly maintained. Upon collecting the contact information, an initial email invitation including the survey link was distributed to 2,068 email addresses with 204 bouncing back. The email that potential participants received detailed the purpose of the study, how the results would be used; it also explained that no personally identifiable information would be reported and asked each administrator to consider participating. When recipients of the email chose to take part in the study, they simply clicked on an embedded link that took them to the informed consent form and the survey. The emails that bounced back resulted from minor errors in the databases provided to the researcher, administrators who moved positions after the data were collected at the state level, districts who chose to change their email addresses, or various similar issues. After cross-referencing the 204 returned emails with local school district websites, a total population of 1,939 successful invitations were submitted to participate in this research.

The initial invitation was distributed on July 16, 2018, with all potential participants having been checked and contacted by July 23, 2018. An initial reminder email was sent two days later to encourage as many early responders to the survey as possible. An email was sent to Arkansas school superintendents on July 23 and to regional cooperative directors on July 31 asking them to consider encouraging building leaders within their co-ops and districts to participate in the survey. Within these emails, the leaders had access to the survey sent to building administrators for their review. Although the email did not ask either of these parties to participate in the survey, 23 superintendents and two educational cooperative directors eventually completed the survey. The results of their survey responses were removed from the data prior to analysis.

On July 25, 2018, the author of this paper was invited to give a presentation on this study at the Arkansas Master Principal Institute located at the Winthrop Rockefeller Center as part of the Arkansas Leadership Academy. Present at this institute were 46 building principals across the state who were introduced to the research and invited to participate in the survey. On July 30, 2018, Johnny Key, Commissioner of Education in Arkansas, met with the author of this paper to discuss the research and the potential for collaboration to ensure larger numbers of participants and greater outreach. With the support of Chief of Staff for the Arkansas Department of Education, Gina Windle, an email from Commissioner Key and the Arkansas Department of Education endorsing the survey and asking administrators to consider participating was distributed on August 7 along with a reminder email from the researcher to those who had not yet participated in the survey. A final reminder was sent on August 27, with the last respondents participating on September 4, immediately prior to the survey's expiration date of September 5.

Of the 1,939 successful emails that were distributed, 455 were returned with every question of the survey completed; 537 total participants began or contributed to the survey, and

after filtering respondents based on their current position and contribution to the survey, 473 survey entries were used to provide data to inform the results of this research. The 537 participants who responded to the survey resulted in a 27.7% participation rate. However, after filtering responses to exclude participants whose position no longer fit the criteria for the study or whose contribution to the data offered nothing more than demographic information, the resulting 473 participants represented 24.4% of the original population. One factor that could have negatively affected overall participation in the survey was the timing of the distribution. The survey was accessible during late July and August, one of the busier times for educational administrators as they prepare for the beginning of the school year. In addition, many attend a state conference during this time that takes them out of their offices. While many administrators in Arkansas are under a 12-month contract that would require them to be at work during this time, others may have had time off from school during at least part of the window during which the survey was distributed. If data collection could have happened within the school year, there may have been a larger number of participants in the study.

At the end of the survey, participants had an opportunity to volunteer for consideration for one of two focus groups. A total of 139 (23.6%) participants in the survey included their email addresses and were willing to participate in these focus groups. The results of these volunteers were analyzed and assigned point values according to their responses in the survey. Microsoft Excel was used to sort the participants based off the accrued point values of their answers, allowing the researcher to put them in order according to their reported self-care practices. Invitations to attend digital focus groups were issued to the members of this group who either represented the highest level of self-reported health practices or the lowest. Digital appointments were set to conduct two 60-minute focus group sessions on September 4 and

September 6. Each focus group was designed to include five members and the researcher, but one group had a member who was unable to attend immediately prior to the meeting, bringing the number of participants in one group to four while the other remained at five. Of the nine participants, five were principals, and four were assistant principals; eight were Caucasian, and one was African American; seven were men, and two were women The participants represented school districts from five different Arkansas counties.

Data Analysis Methods

The quantitative data collected from the survey were assigned a numerical value, and the results were categorized by individual self-care habits in relation to the demographic and categorical data collected from participants. The data resulting from the survey were exported from Qualtrics software to a Microsoft Excel sheet to be coded, manipulated, and analyzed. The quantitative data were used to study the trends reported by participants. These results were categorized to be reported descriptively in order to represent percentages and numbers relative to the overall population.

In addition to trends specific to individual data sets, a method was created to statistically analyze collective self-care habits across differing demographic groups and in relation to individual practices. In order to accomplish this, 13 data sets from the quantitative data were selected because of their application to the literature reviewed in Chapter 2 and their ability to clearly delineate divisions of practice. In order to provide a balanced approach to representing overall self-care, every data set was scored on a scale from 0 to 3, with the higher score representing the best practice. The selected data sets and how they were scored are represented below in Table 2.

Table 2
Data Sets and Scoring Used to Calculate Value-Added Scores

	Point Value Determination			
Data Set	3	2	1	0
Daily Sleep Hours	7 or more	6–6.9	5–6	< 5
Nights Difficult to Fall Asleep Weekly	0	1–2	3–4	5
Nights with a Wakeful Event Weekly	0	1–2	3–4	5
Days with Breakfast	5	3–4	1–2	0
Days without Lunch	0	1–2	3–4	5
Pounds from Goal	0–14	15–29	30–44	> 44
Number of 8-oz. Cups of Water Daily	> 11	8–11	4–7	< 4
Days with 30 minutes of Exercise Weekly	5 or more	3–4	1–2	0
Meditative Practice	Daily	Weekly	Monthly	Never
Hours at Work Weekly	40–47	48–55	56–63	> 63
Minutes Communicating Outside of Work Daily	0–30	31–60	61–90	> 90
Hours with Family Daily	4 or more	3–4	2–3	0–2
Times Personal Life Sacrificed for Work Weekly	Never	1–2	3–4	5 or more

The primary means of analysis for the qualitative data collected in this study was thematic content analysis, beginning with open coding (Marshall & Rossman, 2016). The responses to qualitative questions in the survey were collected and analyzed using Atlas.ti

software to identify commonalities and reoccurring themes that could provide insight into the experiences of the entire sample. The digital focus groups were recorded and transcribed to allow the researcher to utilize the same thematic content analysis approach to identifying and coding themes within the responses. After working through an initial stage of open coding where basic phenomenological trends were noted, the individual pieces went through a process of axial coding where they were categorized and grouped by commonality (Marshall & Rossman, 2016). The fact that the focus groups were assembled according to the participants' responses to the survey questions also provided opportunities to examine the responses from each group in relation to one another to determine if there were differing ideals or experiences that could be unknowingly contributing to the self-care practices of the participants. The intentional tie between the quantitative data, the qualitative data collected through the survey, the targeted grouping of focus groups, and the data collected from these groups allowed for triangulation of the data, which significantly aided in the interpretation and presentation of the results.

Trustworthiness

The researcher attempted to address possible issues of trustworthiness in this research. First, the researcher is currently a building administrator in a school within a district in the Guy Fenter Educational Cooperative. As a result, the survey was distributed to building administrators who both knew the researcher and had personal friendships with him prior to this research. As a result, the survey was administered completely online, and members within the researcher's school district received it in the exact same format as those in other school districts. Along with the survey, the researcher sent an email explaining that there would be no personally identifiable information collected. By reading the accompanying email, all the potential participants could understand that they were invited to participate but could also choose not to

participate in the study by simply not answering the questionnaire. The survey was limited in the scope of the questions it asked participants in order to ensure participants' comfort and willingness to be included in the study. Alcohol consumption, tobacco consumption, or other health questions could have provided meaningful data to this research but would have compromised the ability for participants to feel that they could answer honestly using their school email addresses in conjunction with a researcher that they do not know personally. Finally, in partnering with the Arkansas Commission of Education, there was concern that participants could feel pressure even if they preferred not to participate in the study. The original idea was for the email from the commissioner to include a direct link to the survey. However, the researcher was concerned that applicants may feel that the someone from the Arkansas Department of Education could identify those who had chosen to participate and those who had opted out of the study. To ensure a consistent approach to all potential participants, the researcher chose to omit the survey link from the email and simply follow the email from the commissioner of education with the same invitation that all previous participants had received.

With regard to data collection, the intentional imbedding of triangulated data within the design of the study sought to add legitimacy to the results. Data were collected by three different but collaborative means to lessen the likelihood of misrepresentation, especially within phenomenological data where objectivity must be avoided. Data from the focus groups were recorded and transcribed to provide specific quotes that could isolate perspectives and allow for comparable data pieces to those collected through open-ended questions in the survey. Lastly, individual member checks with participants improved the validity of the study thanks to transparency in terms of the results of the study and communication with the participants who contributed to the work (Ravitch & Carl, 2016).

Limitations

The first limitation of this study lies in the inability to ensure absolute access to every practicing building administrator in Arkansas. A great deal of time was spent aligning the databases provided from the Arkansas Department of Education with local school district websites, but there was no way to ensure that a very small percentage of practicing administrators were not missed in invitations to participate. Some examples that could have excluded individuals from the study were late positional moves across school districts or misrepresentations of individuals' job titles on district websites.

Another limitation of this study is that only data from those who chose to participate were available. This could limit the ability of this study to provide a statistical representation of administrators across demographic variables. Therefore, the data could be skewed where there are only small representations of reporting subpopulations that contribute. This is also similar in the selection of participants for the focus groups. For the sake of the analysis, two contrasting groups of participants allowed the researcher to compare trends in the data to look for diverging ideas that could be subconsciously contributing to belief systems. However, this means that only nine individuals were selected to provide a voice for the experiences of educational leaders for the entire state. It is irresponsible to assume that data within these two sessions could completely represent the experiences of thousands. In addition, because only those who reported particularly high or low levels of self-care practice were chosen to participate, there was no representation from participants whose surveys placed them near the middle. This could present an area for future research and study. However, for the sake of this research, the qualitative data collected in large amounts through the survey were used to attempt to fill in the experiential gaps that could have only been filled through several more focus group meetings.

Many of the questions utilized in the survey were multiple-choice or Likert-scale questions with predetermined answers. These answers cannot offer any detail beyond the assigned categories, which prevented the researcher from obtaining deep feedback. In any survey or questionnaire, it is possible that participants could react to questions differently than if they were delivered in person through an interview format. This could have potentially skewed the data. Additionally, the results of this study were dependent on the accuracy and dependability of participants to honestly answer the questions. Questionnaires or surveys also make the explanation and contextualization of answers impossible, and they provide no way of knowing whether or not the respondent is being truthful (Ravitch & Carl, 2016).

Delimitations

For this study, only active building administrators were included, excluding those who had served as building administrators but either moved on to other positions, left the profession, or retired. While this limits the perspectives available, this choice was the result of trying to obtain current data that represented school climates, educational expectations, and administrator experiences during the research period. Also, the researcher chose to draw exclusively from building administrators. While studying district administrations would undoubtedly yield valuable data, the researcher felt that the positions were too different from one another to have a comparable data set if they were combined. This could provide a valuable opportunity for further study. Only Arkansas school districts were chosen for this study. As with many states, Arkansas is geographically and culturally diverse, but there is commonality in the experiences of administrators, who all work under the direction of the same leadership. Fascinating possibilities exist for researchers who decide to include states that function both similarly and differently to Arkansas. This would provide new depths of data that could ultimately present a clearer picture

of the outside influences potentially competing with the self-care of building administrators across the United States' educational system.

Summary

This research has three separate goals. The first is to utilize studies in the literature to understand if self-care habits can affect the cognitive and decision-making processes of human beings. The next two primary relate to answering the research questions defined in this study. First, what is the state of the self-care habits among building administrators in Arkansas? Then, upon gaining clarity with regard to these practices, what are the external impacts of the role of educational administrator that could be impeding healthy, research-based habits? However, beyond these questions is the possibility to assign a new level of importance to these fundamental human needs with regard to the cognitive performance necessary to excel as a building-level leader within a school. These data could initiate meaningful conversations among practitioners in the field as well as district-level leaders who make decisions that affect those being studied. Finally, although these data only represent the state of Arkansas, the findings could be meaningful in other districts, co-ops, and state-level entities that work with building-level leaders. The results of this work could also encourage other researchers to study different geographic regions to create an understanding of self-care among building administrators across the country.

Each of these goals meets at the common theme of producing happier, healthier, and more effective educational administrators. At a time when teacher shortages, the privatization of education, and educational funding have become daily news, it is imperative that we seek to recruit but also retain and develop the leaders within the educational system. Often, great effort is made to recruit and hire the right person for the job, but then that person is left to their own

devices to sink or swim in a high-profile role. Arguably, successful administrators may find that success comes at the cost of things that Maslow (1943) considered as foundational human needs. The findings of this research present a picture of administrator self-care in Arkansas. The data could provide another source of school improvement that brings with it the ability to invest in the individuals upon which school districts heavily rely.

CHAPTER FOUR—RESULTS AND ANALYSIS

Introduction

The purpose of this research was to determine the self-care habits of practicing educational administrators in Arkansas in light of current research on their behavioral and neurological effects on human function. In addition, this study sought to collect data that could identify expectations, beliefs, and experiences within the role that compete with the quality of overall health and self-care for the individuals serving schools across the state. The following questions were used to guide this research:

I. What effect do self-care habits have on educational administrators' cognitive performance and decision making?
II. What are the self-care habits in place for administrators in Arkansas?
III. What job-related aspects of the role of educational administrators impede or challenge the establishment of positive personal care habits for leaders?

The first question required a comprehensive examination of existing literature in the fields of neurobiology, behavioral analysis, and psychology. Without this foundation in research, there would be no basis for answering the second and third questions guiding this study. With a research-based understanding of the impacts of human self-care practices on behavior and function, question two began to make connections to the current reality among educational administrators in the state of Arkansas.

To answer the question of which self-care habits exist among practicing administrators, this research employed a digital survey created using Qualtrics software in conjunction with the University of Arkansas. The survey was distributed to 1,939 potential administrative participants and returned 537 entries. Of those entries, 64 were excluded from the results due to a change in

the role of the participants or data limited to only demographic information. This resulted in a data set representing 473 participants serving as principals, assistant principals, or deans of students in Arkansas schools whose responses to the survey contributed to a better understanding of the current reality of self-care in our state.

Question three was selected to continue the progress from research and current reality to actionable data that could be used to inform practice and decisions. To gather information about job-related aspects of the role of educational administrators that could be competing with strong self-care habits, the researcher had to gather experiential data from practitioners willing to share their perspectives. There were two goals related to the collection of qualitative data. The first goal was to collect experiences from a large sample of participants to more accurately represent the voice of all Arkansas educational leaders. The design chosen to meet this goal was the inclusion of open-ended questions chosen to collect qualitative data as part of the survey. To encourage participation, the number of questions intended to collect this data was limited to four, thus allowing for more in-depth responses while being cognizant of time. The second goal of qualitative data collection was to collect a large amount of data from a small sample of individuals, which could present a more holistic understanding of the phenomenon of balancing self-care with the expectations of school leadership. Although the qualitative data collected through the survey presented a large-scale picture of the experiences of Arkansas leaders, the study remained very limited in its ability to elicit data to meet this second goal of deep, meaningful reflection from participants. As a result, two focus groups were formed using participants and the data they contributed via the survey to deepen the understanding of the human element behind the data collected in the survey. These focus groups met digitally utilizing the Zoom conferencing platform. One group of four and one of five participants were chosen

based on the participants' self-reported habits in the survey and their willingness to participate in a mediated 60-minute discussion with the researcher.

Qualitative data collected in both of these instruments were transcribed and coded using Atlas.ti software to isolate and highlight trends and beliefs existing within the perspectives of the participants. Additionally, the collection of the qualitative data in conjunction with the reported self-care habits allowed data to be compared between individuals whose self-care habits differed significantly from one another.

Data Analysis Results

Data were collected for this research by using two separate instruments in a mixed-methods approach to answering two specific self-care research questions (research questions 2 and 3). These questions were selected to guide this research, building upon each one to apply existing research to the current state of Arkansas administrator self-care while considering the voices and experiences of these leaders to determine what factors could be contributing to the habits in place.

Research Question 2

Research Question 2: *What are the self-care habits in place for administrators in Arkansas?*

The data set for this question was compiled from the results of 473 active principals, assistant principals, and deans of students in schools across Arkansas. Demographic information for these participants is represented in Table 3.

Table 3
Demographic Data of Survey Participants

Position		Gender		Ethnicity		Grade Level	
Assistant Principals	172	Male	214	American Indian	2	Elementary	199
Deans of Students	9	Female	259	Asian American	1	Middle Level	114
Principals	293			Latino	2	Secondary	150
				African American	37	All Grades	10
				Caucasian	431		

Note: Demographic data representative of 473 survey respondents

Sleep

Using Maslow's hierarchy of needs (1943) as a guide, data were collected to specifically measure the practices among leaders in meeting their most basic physiological needs. For this research, the areas of sleep, nutrition, and hydration were chosen for study. Chapter 2 contains an outline of the difference between acute and partial sleep restriction. Because of the more random and isolated nature of acute sleep deprivation, the researcher chose to focus the survey on the potentially less-understood but equally impactful partial sleep restriction. Understanding that cognition and neural function begin to be adversely affected after only four consecutive nights of less than seven hours of sleep (Goel et al., 2009), getting seven hours of sleep and below seems to result in cognitive impairment to some extent. Worthy of note in the collection of data for this survey is that participants were not asked simply to guess their average sleep but rather to tell the times when they went to sleep and the times they were wake during the work week. The reason for the specificity of this questioning was the belief that most professional adults likely depend on an alarm to wake in the morning and have established routines that determine the time they go to sleep. The goal in the design of these questions was to elicit higher specificity and accuracy from participants in their reported sleep.

Table 4
Average Nightly Hours of Sleep Among Arkansas Administrators

Hours	n	% of N
< 5.6	34	7.3%
5.6–6.0	47	10.1%
6.1–6.5	78	16.8%
6.6–6.9	21	4.5%
7.0	108	23.2%
7.1–7.5	77	16.6%
> 7.5	100	21.5%

The data presented in Table 4 indicate the specific numbers of participants reporting sleep in time-specific categories. Notably, only 38.1% of practicing administrators in Arkansas reported nightly sleep exceeding seven hours. Additionally, 17.4% of respondents reported getting six hours of sleep or less nightly, which according to research on partial sleep restriction, will result in neurological function comparable to operating at a 0.10% blood alcohol concentration (Dawson & Reid, 1997) after only two weeks (Goel et al., 2009). In addition, 38.7% reported sleeping less than seven hours, also placing them within the range of sleep restriction.

The 38.7% of Arkansas educational leaders receiving less than seven hours of sleep each night exceeds the national average of 35.2%. Furthermore, an age-adjusted 37.6% of Arkansans reported sleeping less than seven hours nightly on the Behavioral Risk Factor Surveillance Survey published by the CDC in 2014 (Center for Disease Control, 2014). The data presented in Figure 12 and Figure 13 present a picture of the sleep habits of Arkansas educational administrators based on gender, but the sheer duration of sleep without a means of understanding the quality of sleep presents only a partial picture. Figures 12 and 13 present the data reported from participants who struggled to fall asleep and who found themselves waking at least once during sleep.

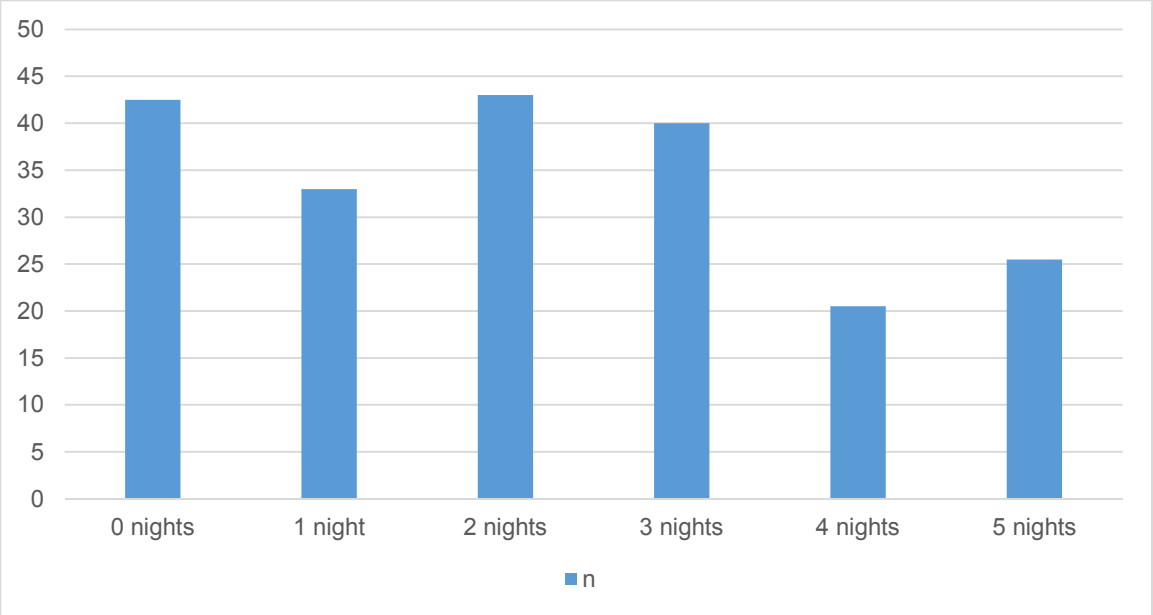

Figure 12. Nights with difficulty falling asleep among Arkansas educational administrators.

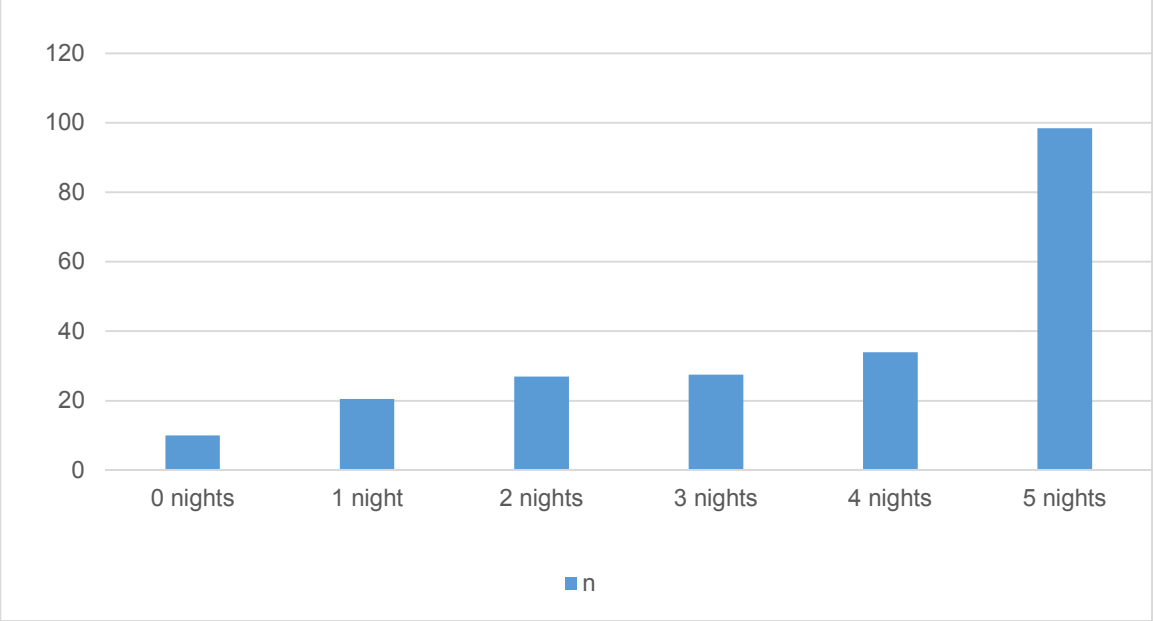

Figure 13. Nights per week with minimum one wakeful event for Arkansas educational administrators.

Of the study participants, fewer than 21% reported not having difficulty falling asleep during the work week, and over 42% experienced this struggle three to five nights. When it comes to uninterrupted sleep, approximately 4.5% of respondents reported work weeks without

waking up in the middle of the night in comparison with nearly 74% who experienced wakefulness three or more nights during the work week and over 45% who woke up at least once every night.

Nutrition

The next element of physiological need was addressed through questions asking educational leaders to reflect on their nutritional habits. The questions sought to understand the quality of food eaten, frequency of meals, and administrators' perceptions of themselves in relation to their ideal weight. The survey asked administrators how often they ate breakfast and how many times during the work week they missed lunch as a result of their schedules. The responses to these questions are noted in Table 5.

Table 5
Reported Breakfast and Lunch Habits of Arkansas Administrators

	Minimum	Maximum	Mean	Std. Deviation
Days reported to eat breakfast	0	5	3.68	1.71
Days reported to miss lunch	0	5	2.15	1.42

As seen in Figure 14, 87% of building administrators miss lunch at least once during the work week. Among the 40% of leaders who reported missing lunch three or more days a week, there is a higher likelihood of them missing both breakfast and lunch within the same day.

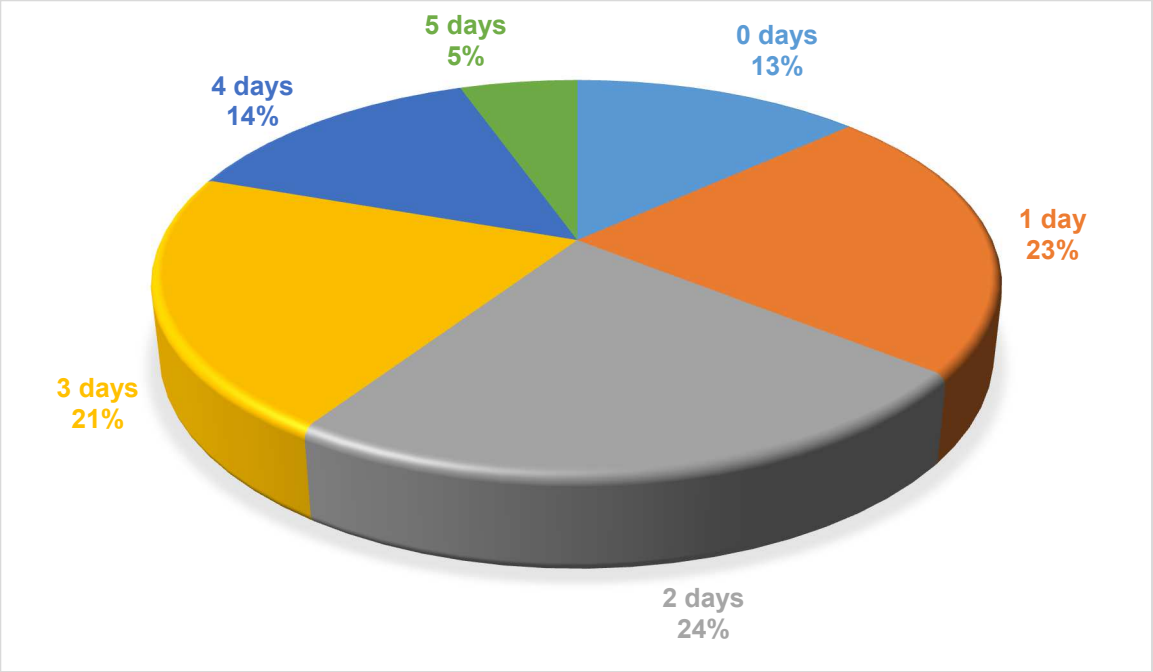

Figure 14. Number of times administrators miss lunch weekly.

Similar to data collected on sleep patterns, the simple occurrence of meals does not present the entire nutritional picture. Some survey questions were formulated to understand the quality of meals consumed by leaders. Because it is unlikely that most people would be able to specifically outline their caloric intake, this research aimed to ask administrators to reflect on the number of meals they consumed during the week that were prepared outside of the home, specifically asking participants to consider meals prepared in "places such as restaurants, fast food places, gas stations, or from vending machines." The challenge of this data is to accurately represent what type of food was consumed outside of the home. One participant could be including fresh-made salads while another meal could be comprised of a hamburger value meal from a fast food chain. Additionally, nearly 30% of respondents reported eating six or more meals per week prepared away from home. Added to the 41% who said they had between three

and five meals prepared outside of the home weekly, fewer than 30% reported eating less than three meals out a week.

Table 6
Self-Reported Relation to Ideal Weight Among Arkansas Administrators

Pounds from Ideal Weight	n	% of N
0	38	8.3%
1–14	137	29.8%
15–29	122	26.5%
30–44	56	12.2%
45–60	39	8.5%
> 60	68	14.8%

Table 6 presents a picture of the perceptions of body composition among Arkansas administrators. As previously mentioned, this data set does not utilize a universal BMI chart, although it does paint a picture of perceived health and body weight among the participants. With this understanding, the data could nearly be broken into three groups. The first group, at 37.5%, considered themselves to be less than 15 pounds above their ideal weight. The second group (26.5%) classified themselves as being between 15 and 29 pounds above their ideal weight. Finally, the third group (35.5%) of participants perceived themselves to be in excess of 30 pounds above their ideal weight. The smallest group among the participants (8.3%) classified themselves as being at their ideal weight, meaning that an overwhelming majority (91.7%) of participating administrators responded that their body composition perceptions were above the expected average.

Hydration

Hydration is unique to sleep and nutrition in that it may be the least noticeable aspect of denied self-care. When healthy sleep or nutritional needs are not being met, others often clearly notice physiological indications in people deprived by these necessities. An unmet need for hydration, in contrast, can often manifest itself in feelings not dissimilar to those of fatigue or

sleepiness accompanying sleep or nutritional detriments. Because of a potential disconnect between perception and reality, the researcher formulated a survey question to ask participants to describe their levels of their hydration in two specific ways. One question prompted participants to simply rate their overall hydration during the work week. Unsurprisingly, only 3.6% categorized themselves as dehydrated, and 63.3% considered themselves to be at least adequately hydrated. When asked to report specifically on their water consumption, the results told a considerably different story. As seen in Table 7, nearly eight out of 10 participants reported drinking less than eight, 8-ounce glasses of water daily. The disconnect between the perception and reality of hydration is concerning in light of research presenting dehydration and effect on brain size and structure (Kempton et al., 2009), mood (Armstrong et al., 2011), cognitive and motor skills (Watson et al., 2015; Kempton et al., 2011), and even pain susceptibility (Ogino et al., 2014).

Table 7
Self-Reported Number of Eight-Ounce Glasses of Water among Arkansas Administrators

8-oz. Glasses of Water Daily	n	% of N
0–3	207	44.6%
4–7	160	34.5%
8–11	73	15.7%
> 11	24	5.2%

Need of Safety and Security

Within Maslow's second tier of need consists human safety and security (1943). This need is complex and impossible to be exhausted within the habits of personal care, but for the sake of this research, the active habits of physical and mental preservation were chosen to represent this level of need. In keeping with Maslow's theory, until fundamental physiological needs are met, the active preservation of physical and mental health is an unreasonable goal. A tangible example of this lies among the perceived difficulties associated with exercise. When

people are not sleeping, eating poorly, or actively dehydrated, they will experience physiological and mental competition with their drive to exercise.

Exercise

To collect data on how Arkansas administrators actively pursue habits that promote their physical health, there was a need to understand the number of minutes spent weekly in exercise. Two questions asked leaders to report the number of days they spent weekly in at least 30 minutes of moderate aerobic or resistance exercise. While many individuals reported engaging in aerobic activity weekly without muscle-building or resistance activity, only two respondents reported engaging in resistance exercise without aerobic exercise. As a result, these data were analyzed separately. Table 8 presents the reported data on the days per week when administrators spent a minimum of 30 minutes in cardiovascular exercise. According to the results of the survey, considerably more administrators spent two or days a week or less in 30 minutes of cardiovascular exercise (54%) than those who reported exercising three or more days a week (46%). In fact, just over 16% of reporting administrators stated that they met the recommendations of the Department of Health and Human Services of at least 150 minutes of moderate cardiovascular exercise (U.S. Department of Health and Human Services, 2018). Joining the days of muscle-building exercise and aerobic exercise results in an increase in the mean, from 2.55 days of only aerobic exercise to 3.19 days combined.

Table 8
Days with 30 Minutes of Aerobic Exercise Among Arkansas Administrators

Days with Aerobic Exercise	n	% of N
0	46	11.2%
1	78	19%
2	98	23.9%
3	83	20.2%
4	39	9.5%
5 or more	66	16.1%

Meditation and Mindfulness

Although mindfulness and meditation may not be considered mainstream practices, the effects on cognitive function and control are well documented (King et al., 2016; Tomasino & Fabbro, 2016; Ochsner et al., 2002; Farb et al., 2007; Creswell et al., 2016; Chiesa et al., 2011; Moore & Malinowski, 2009; Fennell, et al., 2015). Specifically pertinent to this research are studies that highlight benefits specific to educators (Flook et al., 2013; Anderson et al., 1999). However, data collected through a survey question that asked administrators how often they engaged in meditative or mindful practices suggest that many administrators seem to place little value on these pursuits or struggle to include them in their regular routines.

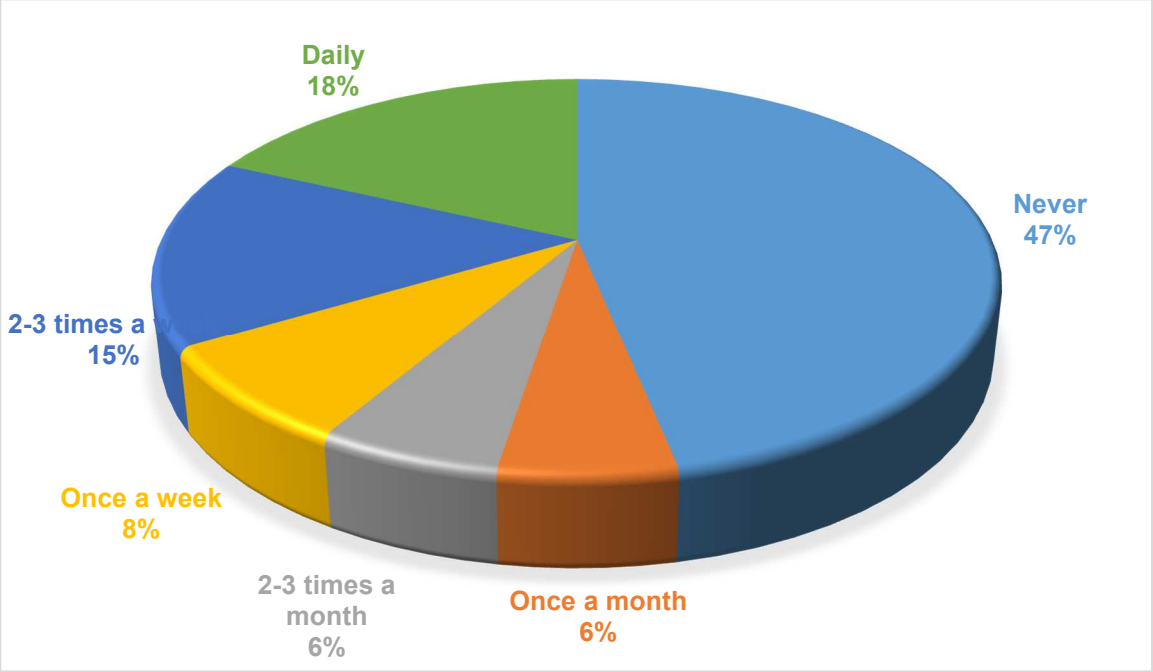

Figure 15. Frequency of practice of meditation or mindfulness among Arkansas administrators.

Need of Love and Belonging

The third tier of Maslow's hierarchy of needs builds upon the previous two. Once the needs of physiological health and active physical and mental development are met, the next

fundamental need lies at the interconnectivity of human beings. To understand how this need is met among administrators, questions were created to collect data on the balance of the professional and personal lives of administrators, how much time they set aside to spend with loved ones on vacation away from work, and how they actively engaged in the activities they personally enjoy.

Work–Life Balance

The job of leading a school is difficult and complex. Research suggests that, nationally, the average building principal reports spending 59 hours per week on the job (Lavigne et. al., 2016). However, in regard to physiological needs, assigning a number a person's need of love and belonging may not present the entire story. It could be argued that the quality of time away from work could be just as important as the number of hours. With this in mind, data were collected from administrators seeking clarity in terms of the amount of time spent on the job and the quality of the time spent away. Figure 16 represents the average amount of time reported by educational leaders in Arkansas at work in relation to the amount of time the average American reports working each week (*American Time Use Survey,* 2018). Unsurprisingly, assistant principals and deans reported spending less time on the job than principals, whose overall average was reported to be higher than the national average.

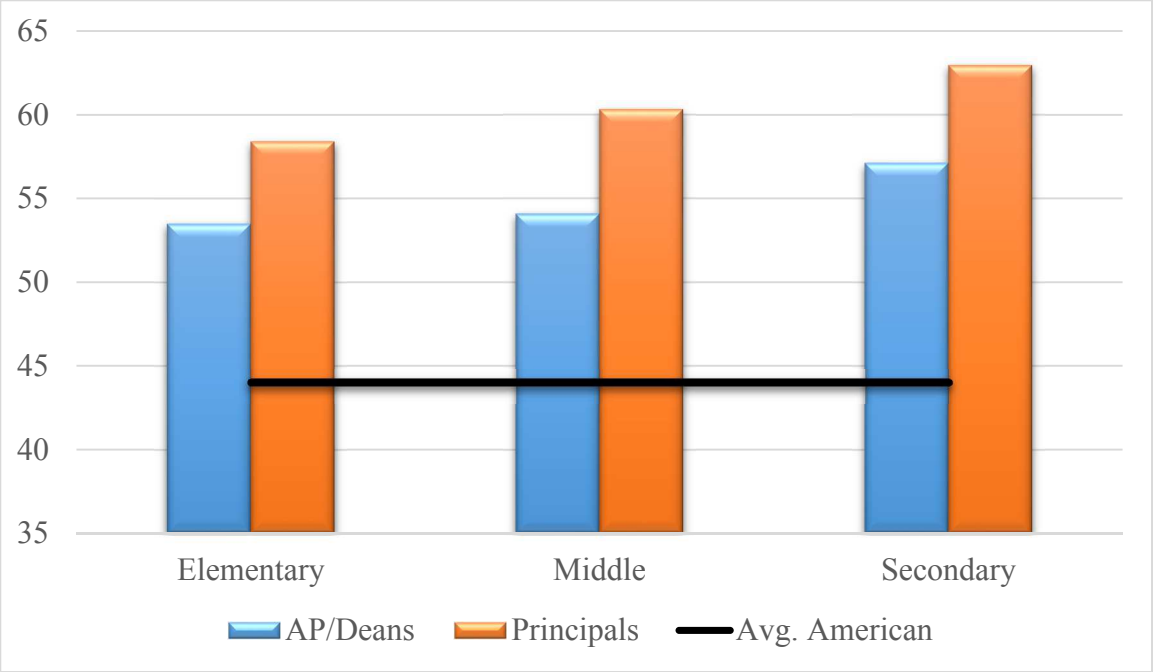

Figure 16. Comparison of average hours worked weekly among Arkansas administrators and average Americans.

Throughout this research, one of the major challenges expressed by leaders has been the difficulty in "shutting it off" when they go home. Perhaps this struggle is a result of the fact that most administrators reported continuing work daily after leaving their buildings. Nearly 84% of respondents reported spending more than an additional half hour daily in professional work emailing, text messaging, or in phone conversations. This time is not represented in the amount of time spent on the job but must be considered when presenting an accurate representation of the competition between personal and professional expectations for leaders.

Table 9
How Many Minutes Daily Administrators Communicate Outside of Work

Times per Week	n	% of N
0–30 minutes	57	12.5%
31–60 minutes	205	45%
61–90 minutes	114	25%
91–120 minutes	69	15%
> 120 minutes	11	2.4%

Relational Belonging

Defining the quality of time outside of work is challenging because of people's distinct values and beliefs. To frame the data, participants were asked to rank activities that happened outside of work by the importance of these practices in their lives. Over 71% of respondents said that time spent with loved ones was the single most important thing to them in the prioritization of their personal time. However, data collected from the surveys and presented in Table 10 suggest that this time could come at a true premium for Arkansas administrators. Participants were asked to report the number of hours spent actively engaged with their family and friends daily during the work week. While 70% prioritized this time above everything else, over 80% suggested that they had less than three hours a day to devote to their most important relationships. Additionally, nearly 20% reported spending less than an hour a day with loved ones.

Table 10
Time Spent Daily with Family and Friends

Hours per Day	n	% of N
< 1	88	19.6%
1–2	178	39.7%
2–3	98	21.9%
3–4	36	8%
4–5	34	7.6%
> 5	14	3.1%

While these data present a picture of the competition between personal and professional values and expectations, it is impossible to assert that work expectations alone are responsible for this phenomenon. To achieve further insight, participants were asked how many times during the average work week they felt that they had to sacrifice their personal lives in order to meet the expectations of professional demands. Data from this question, represented in Table 11, indicate that nearly a quarter of leaders reported making this sacrifice five times or more a week. Overall,

less than 8% felt that they did not have to sacrifice their personal lives on a weekly basis for their jobs.

Table 11
How Often Arkansas Administrators Sacrifice Personal Life for Work Weekly

Times per Week	n	% of N
0	35	7.7%
1–2	187	41%
3–4	122	26.8%
5 or more	112	24.6%

Volunteerism and Philanthropy

Although volunteering time can provide benefits such as decreased burnout and stress (Ramos et al., 2015), data from this research suggest that this activity makes up only a small part of the lives of school leaders in Arkansas. When asked to identify the amount of time spent weekly in some type of volunteerism outside of work, the average leaders reported barely donating two hours of their time. Furthermore, more than a third of respondents said that they participated in no philanthropic work outside of school. Almost half said that they were part of one (or none), including church, social, or extracurricular groups.

Value-Added Comparison

When examining existing literature on the effects of self-care on human performance, the data can be logically categorized according to research studies concerned with sleep, nutrition, exercise, or other factors. Data that present a holistic picture of self-care across all categories have a significantly smaller presence in research. A reason for this could be the challenge in representing the collective impact to human performance without conflating individual pieces into an inaccurate whole. With this in mind, the researcher did not attempt to predict any cumulative effect but set out to construct a larger picture of the collective self-care among the respondents. This information is useful in analyzing the quantitative data to identify trends.

As detailed in Chapter 3, the value-added score for each individual was calculated by assigning point values of 0, 1, 2, or 3 to each response that respondents gave across 13 carefully selected quantitative data sets from the survey results. These data sets were chosen to represent each identified self-care habit within all three tiers of Maslow's hierarchy (1943). The closer the point values come to the maximum of 39 points, the higher the collective reported self-care of an individual is. To ensure that these data could not be skewed, any participant that left even one question unanswered was not assigned a value-added score. In all, 296 scores were assigned for comparison.

Because this research included principals and those serving in assistant roles, the first utilization of these scores was in the comparison of these two positions. A *t*-test was run to calculate whether there was a significant difference in the scores between these two positions. The test suggested the existence of a statistically significant difference in the self-care habits among principals and their assistants. The results of this test can be seen in Table 12.

Table 12
Results of t-Test for Value Added Score Among Principals and AP/Deans

	Position							
	Principals			AP/Deans				
	M	SD	n	M	SD	n	t	df
Value Added Score	17.96	5.18	182	20.99	5.06	112	4.92*	292

* $p < .001$.

In addition, the value-added score was utilized to determine if there was a significant difference in the habits reported by men and women. Two *t*-tests were run to provide comparisons among male and female respondents filling principal and assistant roles. The results of these tests indicated that there was a statistically significant difference between male and female self-care habits regardless of role. These data are displayed in Table 13.

Table 13
Results of t-Test for Value Added Score Among Principals and AP/Deans by Sex

	Sex							
	Females			Males				
	M	SD	n	M	SD	n	t	df
AP/Deans	20.30	5.17	66	21.98	4.77	46	1.74*	110
Principals	17.32	5.08	99	18.72	5.19	83	1.83**	180

* p = .042. ** p = .034

Another potential comparison for the value-added data would have been among respondents of different races. However, because fewer than 10% of the responses that received a score came from minorities, the decision was made to not report these results because of data-reliability concerns due to significant sample size discrepancies.

The method used to determine the value-added score for each participant assigned the same point value to each question. As a result, each individual question received equal weight in determining the overall score of a participant. This equal distribution made it possible to compare the overall scores in light of one particular response to draw conclusions about whether one individual self-care habit could have more impact than others on the overall value-added score. The data collected from these comparisons are presented in Table 14 below.

Table 14
Results of t-Test for Overall Value-Added Score by Results on Individual Habits

	VA Score = 3		VA Score < 3			
Self-Care Habit	M_1	n_1	M_2	n_2	M_1-M_2	t
Nightly Sleep	20.5	181	16.97	115	3.53	5.85*
Water Consumption	22.92	13	18.95	283	3.97	2.65**
Pounds from Goal	21.87	121	17.23	175	4.64	8.12*
Combined Exercise	22.47	98	17.47	198	5	8.44*
Mindfulness	22.37	57	18.36	239	4.01	5.34*
Sacrifice Personal for Work	25.15	20	18.69	276	6.46	5.48*
Hours with Family	23.45	33	18.59	263	4.86	5.16*

N = 296 * p < .001 ** p = .004

Notably, this chart shows that, regardless of the habit, there is a statistically significant difference in the overall scores between individuals who scored a three in any particular habit and the rest of the population. Also important to these results is the difference between the mean scores of the two compared groups. Only two of the seven habits represented in this chart have differences of less than four points in the means of both groups.

Quantitative Summary

The goal of the collection of quantitative data in this research was to understand the state of self-care habits among practicing building leaders in Arkansas. Overall, the data reveal a wide array of self-care practices among participants but underscored a clear need for improvement across the state overall. In light of research presented in Chapter 2, there is reason to believe that many of the key leaders of schools in Arkansas could be experiencing impairment to their cognitive, physical, and emotional performance, perhaps without knowing it. While these data are meaningful in presenting the current reality based on existing research in this field (including

this study), it falls short of presenting the experiences and voices of these leaders. Additionally, these data only identify the issues without seeking potential catalysts and areas for improvement. These next steps can only be accomplished through the voices of practitioners and their educated perceptions, which could highlight places to begin promoting healthier, more effective leaders for our schools.

Qualitative Survey Questions

The first two research questions of this study placed the current practices of educational leaders in Arkansas up against what previous research has discovered about the ability of self-care to impact human performance. To provide opportunities for these data to become actionable for individuals and schools, a greater understanding of the human experiences behind these data was needed. These perspectives provide the opportunity to connect research and current practice with perceptions in an attempt to provide means of intervention for healthier leaders in schools.

The first source of qualitative data consisted of a series of open-ended questions at the end of the survey. Participants were asked to respond to four prompts:

1. In your opinion, what aspects of being a building administrator encourage good self-care habits?
2. In your opinion, what aspects of being a building administrator discourage good self-care habits?
3. If you could change your job to enable yourself to practice better self-care habits, what would you change?
4. Do you have the ability to change aspects of your job that impact your personal self-care? If not, who does?

Question 1

It is worth noting that these questions were specifically positioned at the end of the survey to provide the researcher a clearer understanding of what was meant by self-care. Participants answered questions pertaining to each of the identified areas of this research, providing background knowledge to frame their responses to these questions. Individual responses were collected, transcribed, and coded, resulting in some general themes that represented a majority of the expressed opinions. The first question asked participants to reflect on specific areas of the job that encourage good self-care habits. The data collected from this question actually showed that nearly 100 (28 percent) of responses to this question said that there were no aspects of the role of educational leader that actively encouraged their self-care practices. Because of the format of this survey, participants were not aware that the subsequent question would ask them to reflect on aspects of the role that detract from self-care, and many of these individuals expressed challenges similar to those indicated by the data collected from question two.

Among the areas where leaders felt their job encouraged their self-care, reoccurring themes of public perception, necessity, activity, and influence emerged. Leaders expressed that certain aspects of their leadership roles did not necessarily actively promote self-care but required a certain level of care to be able to perform at the highest level. The idea of public perception was one of these areas. Leaders showed how public perception provides motivation for their own care through comments like “being around the public community and parents make you want to look your best and look professional” and “often I am the most professional person a parent ever sees.” One leader saw the “necessity to look presentable to the public” as their responsibility in “representing an organization bigger than yourself.” Fascinatingly, these

responses suggest leaders' self-care could potentially originate in a desire to be selfless or to serve others. They validated their care by demonstrating how others needed it from them.

Necessity was another theme that, like public perception, did not actively encourage self-care but was tied to self-care habits. Respondents reported that the requirements of the position necessitated their self-care and that self-care was a means to being able to do their job, as illustrated in the following quote: "If you aren't healthy, you simply cannot do the job effectively. That knowledge makes you want to make health a priority." Another response added even further weight to trying to fulfill the expectations of the role without proper self-care: "If you don't do at least a minimum amount of exercise and eating right, the job will destroy your health because of the stress." Both of these quotes could suggest that the fulfillment from working within the role motivates these individuals to exercise because of their knowledge of the necessity of the exercise to their survival. However, other responses, such as "I've watched too many friends die right after retirement" or "I just can't keep up, but I'm about to retire" challenge that assumption. One participant explained,

> I care for myself out of necessity. I did not do a good job taking care of myself during my first year as an administrator and my mental health and my emotional health suffered from it. When I am in a constant state of survival, I cannot be who I need to be to my teachers, my students, or my family. I learned the hard way that self-care is a must.

Therefore, respondents saw the necessity of self-care as a job-specific encouragement to their practices.

The first of the active encouragements to self-care was the activity within the role. Many leaders cited the amount of walking that regularly occurs in completion of their duties and that they are regularly included in exercise initiatives that happen within their schools. One respondent reported having the ability "to walk ten thousand steps on a typical day." Along the

same lines, some participants recognized that their compensation and benefit packages provided adequate health insurance and financial support to pay for the cost of a gym membership.

Finally, the most commonly cited motivator specific to the educational leader role was the desire to be a role model for students and staff. While this could potentially be conflated with public perception, it was often portrayed as much more intentional or personal while being directly tied to the chosen goals for a particular participant. An example of the personal connection to this idea is found in the following quote: "I love the idea that we could be serving as role models and mentors for so many students, parents, and staff members." Another leader explained her intentional pursuit of being a role-model through her self-care as follows:

> I want to be here for the children and show them that healthy food is fuel to the body and soul. I typically eat a salad every day, while walking around in the cafeteria, to show students that I eat well. Not too sure if they care or not but it makes me feel that they do!

Finally, you see a more active fulfillment in this pursuit through comments like "I want to be a mentor for the students and staff in relation to good health and fitness. I also want to feel good about myself and my self-image to my students/staff/public." Noticeably, quotes about being a role model were regularly accompanied by personally actionable language, such as "I believe," "I hope," "I try," or "I want." This language stands in contrast to quotes in the other areas in that it seems to regularly portray something that is personal to the respondent, which could connect with the deeper purpose and goals they hold as leaders.

Question 2

The second question provided a contrast to the first one by asking participants to reflect on particular aspects of the role that discouraged their personal self-care. One of the primary reoccurring themes in the responses had to do with the professional expectations of the role of educational leader. Examples of this focused on large numbers of students, the lack of necessary

staff, increasing state expectations, extracurricular activities, and a growing need for improved mental-health services. This is evident in the response of a principal, who said that "78 staff members and two administrators with 730 children in the building makes for limited time to do things to the best of your ability, which causes stress to those of us who want to make a change." Another principal explained that exhaustion resulting from "never-ending disruptions to your daily schedule, constant meetings, the stress of meeting everyone's demands, the constant presence of feeling overwhelmed, and feeling unsupported" competed with his desire and ability to stay healthy. Directly tied to these expectations was the recurring theme of stress and the impact it has on the individuals in the role. The relationship between the expectations and the stress they cause the leader is reflected in one response: "The workload is about double the allotted amount of time to do it. By the time you work all day, including all the after-school stuff, there's not time for personal health unless you want to completely ignore your family." Another leader explained her job as "manager, instructional leader, counselor, and public relations officer" every day and that the stress of the job "makes you wonder if you are even making a difference."

While coding the data, however, it proved particularly challenging to identify specific expectations of the role and perceptions of what was required from the participants that could be considered "universal". Participants suggested that taking time for yourself could be seen as a "lack of ambition" or a reason to be "looked down upon." Another example of perception versus professional expectation can be seen in what one participant felt was required of their communication:

> Everyone expects principals to be "on" 24/7; we get emails on the weekend, emails at night, then follow up emails before 8 a.m. the next morning because we haven't responded yet to the email that was sent at 10:30 the night before.

In addition to many expressions of those who admitted to the feeling of being “the first one to arrive and the last one to leave,” there were others who expressed a perceived expectation that they be always available as in the following quote:

> Time consumption! I want to do things right and not half-way. Parents are in constant contact now through social media. I could get off social media, but that's not supporting your community well, in my opinion. Teachers are always in constant contact—all summer, nights, weekends. Maybe I have them spoiled, but, I'm a transparent, open-door policy type administrator.

At the conjunction of the outlined expectations and the perceived expectations lies the functional reality for the individual. When these two combine, the complexity easily competes with good self-care habits, as articulated in the following quote:

> The job of being an administrator is a high stress, problem-solving position. People are frequently angry and are not hesitant to share their feelings. Depending on the week, eating out is faster than cooking and cleaning up. There are night-time meetings that interfere with family time. Getting a good night’s sleep is frequently interrupted by planning for the next day, reliving the stressful situations of the day, remembering things to put on the to-do list, and second-guessing decisions. It is impossible to please everyone, and that can impact culture. Concerns over test scores leads to worry, which increases stress.

Nutrition and healthy eating were areas that participants said were directly impacted by serving as an educational leader. One of the common themes involved the lack of regular time to eat and the absence of a set schedule. Respondents regularly mentioned the challenge of eating lunch or the lack of time needed to prepare healthy meals during the day. Additionally, some respondents made a correlation between their eating choices and the emotional response it elicited in their pursuit of stress relief or happiness:

> In addition to the mental stress, I do not eat regularly, and when I get the chance to eat, it is typically a "comfort" food rather than a healthy option. I love to cook, and I like healthy food, but cheese-its, popcorn, and wine or water are often "dinner" even if I didn't eat lunch that day.

The participants' responses suggest that this type of choice is not only relegated to nutritional decisions. Many reported having to make choices after fulfilling the professional requirements of their jobs and actively choosing their families over themselves. One participant said, "Days that I don't have work, I can't have a hobby because I've already taken enough time from my family," while another clearly articulated this choice: "After school I want to spend time with my own kids. I forfeit time for myself (exercise, hobbies, etc.) for more time with my family. In no way am I upset about this." Where time is a commodity, the usage and allocation of that commodity becomes a direct reflection of the individual priorities of the distributor.

However, this idea of "others above self" was not isolated to participant responses regarding their families or personal lives. In fact, one of the common themes of the qualitative data collected throughout this entire study reflected a desire or need for administrators to put the school or others before themselves in order to be successful. Specific to this first qualitative question, this theme became apparent in the form of responses such as "the drive to put the needs of others first makes it difficult to have any kind of personal routine" and "the responsibility to students and staff naturally leads to a mindset that sacrifice for the good of the school is a necessary part of the role of a building administrator. It forces administrators to seek a balance, continuously, between personal and professional life." Although not specifically identified, this idea seemed to be a regular subconscious motivation behind the responses to this question. Respondents said they did not regularly eat lunch because the needs of the school did not allow them to, they were not able to disconnect from their email because of the needs of their staff, and they struggled to be present with their family because of the needs of the children at school, among other reasons. This "servant approach" to leadership permeated a great deal of the

responses to the question asking leaders to identify what aspects of their role discouraged self-care.

Question 3

After asking participants to reflect specifically on the job-specific factors that could contribute or compete with their self-care, the next two questions sought to understand the perceived locus of control for habits among respondents. Question three asked participants to consider aspects of their role that they would change to further promote positive self-care habits. This question contains the notion of an unidentified but embedded internal locus of control. The question, even if only hypothetically, asks individuals to place themselves in the position of agents of change in regard to the direct connection between their jobs and their personal care habits. This approach was selected to encourage reflection and to stimulate conversation from within the role about the potentially manipulated areas that could produce healthier, more effective leaders for schools.

When considering the responses provided by leaders, themes once again began to emerge. The first of these was the concept of protected time during the day that would allow administrators to collect their thoughts. Although interchangeable, participants called this "quiet time," "time to catch up," "uninterrupted time," and "planning time." Notably, many responses within this theme referenced something comparable to what is currently present in Arkansas state law for teachers but not required for administrators: a 30-minute, uninterrupted lunch and a planning time. Some participants expressed the belief that having these two times during the day could help reduce the amount of time spent outside of work trying to keep from falling behind. Perhaps this could improve feelings like those of the following participant:

> The hours required me to do a good job. Working from 7 a.m. (or earlier) until 5 p.m. (or later) and then going home and working on a laptop for at least three hours, plus Sundays,

> is exhausting and leaves little to no time for exercise or quality family time. It is very difficult to keep up with emails, calls, and texts that come at all hours from staff and colleagues. It is difficult to put the phone aside.

Other administrators specifically articulated a plan for how they could keep from falling behind:

- "I would set office hours for myself and enforce those with teachers, students, and parents."
- "I would like to have a designated time, during the work day, to decompress and work uninterrupted on emails and paper work unless there is a dire emergency—also, having an uninterrupted 30-minute lunch time."

> Another area identified by leaders was that "building administrators wear a *lot* of hats."

This general theme of responses covered multiple areas of concern, including "more mental health care professionals and social workers to help meet student and family needs," the potential for a "district-level position that covers multiple schools, maybe within a feeder pattern, that handles the management side of the building so that principals can focus on student achievement," the need for "more support with 504 and IEP (Individualized Education Program) meetings that tend to fill my days," or the a change in expectations as to not require administrators to be "responsible for attending all the extracurricular events." Many responses articulated a desire to be more instructionally minded while struggling to keep up with the managerial aspects of running a school. Interestingly though, there were also responses seeking "clarity of roles and responsibilities of all departments and divisions of the school district." There is a possibility that each of these areas could be interconnected. If leaders are unsure of who is fulfilling the different roles of running their school within their district, they feel pressured to complete tasks that deny them time to engage instructionally in the areas they desire. Moreover, there is no understood expectation for them to have lunch or to have time set aside daily for administrative tasks. Therefore, it is easy to see how a job would become burdensome to the point of overwhelming. Additionally, many respondents seemed to share the

perception of a respondent who wished to "remove the guilt of leaving 'on time' or working closer to 40 hours or have a standard lunch break built into my day that I can use for quiet reflection if not eating," and it is not hard to imagine a scenario for physical, mental, or emotional burn-out.

The final overall theme of potential changes was systemic. Leaders suggested four-day weeks for schools, considering "year-round schooling to maybe give us more frequent breaks throughout the year and help students to retain information without such long periods in between learning," "additional time off in the summer, shorter contracts, breaks because administrators need time off away from the job just like teachers," or even considering adjusting the start and end times of the day to allow leaders the opportunity for personal time before the start of the day.

Question 4

For the final reflective question posed to all the participants, administrators were allowed to choose an external locus of control for the changes they believed necessary to improving self-care within their profession. The question was worded to allow participants to take ownership of their own ability to change, but it also asked those who believed they had no power to change to consider whose voice could help pave the way for healthier practices for all leaders. Without a doubt, of the four, this question was the most polarizing because of the outlook of each individual. Those who believed in their personal power to change were quoted as saying things like the following statement:

> Absolutely! Everything is about management and choice. If I choose to put my self-care above other aspects of life, I will. If I choose not to, then I won't. There is a fine line that balances an administrator's self-care versus responsibilities. Many administrators cannot seem to find that line.

Other examples of this personal ownership of change included sentiments such as the following one:

> Yes, because only we can be responsible for us. I don't believe job aspects determine the quality or lack thereof of our self-care. That is in our hands. We may need to seek outside help if it comes down to that, but, ultimately, only we have the power over our choices that are either going to positively affect our self-care or negatively contribute to our care.

Those with a completely external locus of control who saw an inability to make meaningful change in their lives were just as easy identifiable in some quotes:

- "I think the expectation is so high now for the amount of work we have on our plates, I'm not sure how we can fix it"
- "No, I do not. We are a small rural school district and are numbers do not warrant an assistant. I have taken over everything that nobody wanted to do for so long they just keep giving and I keep taking. So there is not time for myself."

You see in these responses a completely internal or completely external locus of control coupled with an articulation of action or inaction in progress of personal self-care.

These respondents represent the opposite ends of the spectrum. However, there were many reflective responses that would occupy the middle of the scale. Those who understand their ability to effect change and have begun working on professional ways to implement positive change, as the following statements made by two leaders:

- "My personality is one to do my job and do it well. I am I 'fixer' by nature, but I am working on distributing leadership in my building to help with the load."
- "I can change the aspect of hiring capable people to handle some leadership roles that I can delegate responsibilities to. This way I don't have to be at every single meeting or event."

There is another group with the self-awareness to understand the need for change, perhaps even personally, but that just has not yet set out to improve aspects of their lives. One example of this is a principal who said, "I just need to stop and know that some things can wait. Sometimes, there are emergencies, and they can't wait, but most of the time I can stop and take better care of myself. I just need to plan better." Finally, there is a group vulnerable enough to admit certain difficulties: "I'm not sure I can fix it, but I'm sure open to suggestions."

The qualitative data collected through these four questions begin to connect the current reality of what research says about self-care and human performance, the current state of Arkansas educational leader self-care, and the potential actionable areas where intervention could improve the lives and effectiveness of these key individuals. The data also portrayed an array of viewpoints and perspectives around the ability to control or impact personal change, the role of the educational leader, and the individual pursuit of health and wellness. The inclusion of these qualitative questions in the survey provided an opportunity to view administrators' responses in relation to the quantitative data. As a result, the qualitative responses to question four were coded to identify which individuals clearly expressed an internal locus of control over their personal self-care. Once these individuals were identified, a *t*-test was run to determine if there was any statistical significance between their value-added scores and respondents who were either neutral or expressed only an exterior locus of control over change in their self-care. The results showed that those who believed that they were personally in charge and able to adjust to meet their self-care needs had statistically higher value-added scores than the other respondents. This information is presented below in Table 15.

Table 15
Results of t-Test for Value Added Score Among Internal and External Locus of Control Responses in Question 4

	Representation of Control for Self-Care							
	Internal			External				
	M	SD	N	M	SD	N	t	df
Value-Added Score	20.34	5.57	67	18.77	5.22	229	2.13	294

* p = .017.

Focus Groups

To better understand the correlation between perception, personal beliefs, and self-care within the role of educational leadership, two focus groups were formed. Unbeknownst to

participants, the groups were specifically created to represent opposing self-reported health habits. Following a questioning protocol, these conversations allowed for an additional depth of understanding in the area of educational administrators and their self-care habits while also providing an opportunity to contrast the responses to identify potential variations that could contribute to the habits in place for each group. Because the four questions within the survey had specifically asked participants to answer questions related to job-related issues that impacted their self-care, the focus groups sought to gain a deeper knowledge of the different characteristics, viewpoints, and beliefs among people serving in similar roles whose self-reported health habits were diametrically opposed to one another. To achieve this aim, a focus group protocol based on Robert Kegan's subject–object approach to understanding adult cognition and authorship (Kegan, 1982) was utilized to allow participants to focus on experiences and emotions they felt and then to connect those experiences to unspoken or unseen beliefs occurring during that time in their lives. Each group was asked to record times when they felt stress, peace, exhaustion or fatigue, and fulfillment. The group was allowed to begin speaking about one of these emotions and to allow the conversation to progress as the researcher directed and the participants contributed.

Given these choices, the first group—comprised of two principals and two assistant principals—chose to begin with stress. This group represented the highest reported self-care habits of the sample of people available to participate in the focus groups. The conversation began with stress associated with the functioning of a school and the role the leader plays. When probed for specific aspects of the job that they considered as stressors answers such as "drinking from a fire hose," "putting the right amount of emphasis and effort into each new program we're working on," and "duties outside of the school day that keep me from my family" emerged.

There was nothing unique or surprising about these responses in comparison to the collective data across all levels of self-care reported in the survey. Only when the conversation shifted to stress management and specific individual struggles did the responses begin to reveal the collective characteristics of this group that were unique from the population as a whole. Each of the four participants could clearly articulate the important elements of their lives that they used to combat stress and how they were proactive in establishing good habits prior to stressful situations. Some examples of this included specific hobbies, having a group of trusted people, active participation in church or religious study, breakfast, sleep, regular exercise, nutrition, and a proactive approach to controlling the narrative of the school. Specific strategies to employ these practices in the lives of these leaders were evident in comments such as the following one:

> I will, as a person, completely fall apart without these three. And so one of them is sleep. I require a lot of sleep. My husband and I joked about that when we first got married. He requires less sleep than I do on a daily basis, and so sleep is a big one for me. My nutrition is big. I have to be very careful about-- well, not careful, but I should be mindful. I function a whole lot better when I'm getting adequate food. And then my third one is time with my loved ones. I will just completely be ineffective as a leader and as a human being if I am not getting all three of those things on a daily basis.

Another participant responded to this question with his own personal realization of self-care needs:

> It's funny when you say you'll totally fall apart with this-- I wrote the word 'breakfast'. That seems silly, but I'll fall apart. And it really goes to deeper nutrition. When I was younger, I could get away with more, but now I've over the years become more conscious of that, and it's really made a difference. The other one, I guess, is sleep. I did not realize how huge that was until just a couple years ago. And then I think fellowship with others of like interest, especially interests that are a little bit outside of education, is real valuable for me. So I'd say those three: fellowship with others, nutrition, and sleep.

The proactivity expressed by members of this group did not end in their personal lives. They also expressed many ways in which they worked to establish a healthy balance as school leaders, including “actively valuing self-care at work with my staff,” “actively valuing

professional and personal growth," "teaching self-awareness and stress recognition to our staff," and "leaving the management things for tomorrow." Members of this group talked about the importance of modeling and valuing self-care in their conversations with teachers rather than always simply drawing attention to the hardest worker or the most hours contributed to the cause. A second-year administrator explained:

> I've tried to make some better boundaries after the first year. And I've tried to be very present wherever I am, so when that's at work, I am very focused and work very hard. And then when it's time to shut it off and go home, I try very hard to shut it off and go home. And then actually be present when I'm at home, not just physically be there.

Upon shifting the conversation to fulfillment in their jobs, these leaders referenced their personal growth and the growth of members of their staff. They shared student success stories and opportunities they had to take part in changing lives. Universally, they found professional fulfillment in the progress of students, staff, or themselves as well as their ability to identify and appreciate these victories during the school year.

After about 45 minutes of group-directed discussion on their experiences around stress and fulfillment, the conversation shifted to what they would share with other principals and what they felt they needed from the state in order to continue to be successful in their professional and personal lives. When addressing their advice to building leaders, their personal priorities surfaced. Some of the same themes of knowing when to stop, having a group of trusted friends, valuing and ensuring sleep and nutrition, and making time for family came to the forefront. When asked what leaders needed from those above them, the participants agreed upon people as the key element. One leader referenced the saying "many hands make lighter work," whereas another spoke to the challenges of specific skill sets associated with mental health. At the conclusion of the time, upon being asked if there were any final comments for someone entering this field, one particular leader made the following statement:

> I would just say the more that you can tell administrators to value self-care because it's really hard to-- I try to model having good self-care so I can look at a teacher and say, "You need to go home now. You need to go be a mom or a wife or just person that goes by their first name and has activities," you know? '"You need to go do that. It's good for you to do that." I feel like in order to say that very well, I need to also be modeling that, and believing that, and practicing that. And for me as a building leader to be able to do those things, I need to see that and hear that from central office, from the state. I guess tell everybody that you can that we need to take care of ourselves, and we need to feel like that's allowed, that's okay, that's encouraged. That from the very, very top.

As a group, these leaders articulated a clear understanding of their limitations and the importance of taking care of themselves both personally and professionally. Some suggested that they had learned this from experiencing firsthand what life was like without proper self-care habits. The proactivity that they described suggested that they made themselves a priority and understood that, without meeting their personal needs, they could not function personally or professionally.

The second focus group consisted of three principals and two assistant principals. In contrast to the first group, the individuals selected for this discussion represented the respondents with the lowest level of self-care who were available to be part of the focus group discussion. This group was structured very similarly to the initial group. Participants were asked to record experiences around the same four emotions, and like the first group, they chose to begin with stress. The discussion began very similarly to the conversation with the first group; leaders discussed the pressures of the job, their struggles meeting the goals they set for themselves as instructional leaders, and the challenges associated with adoption of new programs and structures. As with the initial group, the goal of the moderator was to begin to steer this conversation toward the self-care practices occurring during these stressful situations. Somewhat quickly, the participants shared—with real vulnerability—that some of the stressors were of their choosing. Two participants in this group were pursuing advanced degrees. When speaking of this process, one participant shared the following account:

> Well, I'm going to get this master's degree, and then I'm going to be done. And then, it was like, "Oh, well, this national board thing, that's a pretty good chunk of change. I'm going to go be national board and--" Then, the specials degree came around and, "Oh, I'll get that, and I'll be done. I'll have my district-level administration." Then, now, they've made it easier for practitioners to go and get a doctorate, and so okay and so I'm just-- My wife jokes with me all the time, although I'm not so sure she's joking anymore, that maybe I'm addicted to school. Am I going to be willing and able to say, "I'm not going to put myself in this position because my family is sacrificed, my personal health is sacrificed"? When am I going to make that conscious decision to say, "You know what? Enough is enough"?

Comments such as "I had to double my blood pressure prescription yesterday," "if I could chart my weight and my health over the last 15 years of education it would be a pretty massive roller coaster," and "I'm on three blood pressure pills a day (since) becoming a principal. And I'm only 47" showed that the lack of good self-care habits could be impacting these leaders physically. When it came to active exercise, participants shared that they had a hard time working out, often chose to forego workouts when they were pressed for time, or struggled to work out because they would not allow themselves to take even more time away from their family. However, three of the five participants suggested that they had recently made attempts to work out, suggesting that they at least appreciated the need or value of these types of habits. Nutrition seemed to follow suit with exercise in that participant responses displayed a clear understanding of the importance of good nutrition but did not have good practices in place. A clear example of this was when one participant made the following statement:

> So, when I get home and I'm cooking dinner—because I usually cook—so like five, six o'clock, I'm cooking dinner. I'll grab a bottle of water, and it's gone like that. Because I haven't—I've had coffee all day, and that will be it. Like today, I-- let me think, I had like three or four pieces of candy that we had in the team meeting room. And I've had like four cups of coffee and some Oreos. And that's pretty standard. And I'm sure you guys do the same thing too; you just kind of grab what's there sometimes and make a meal out of it. But, that's definitely an area I could be taking better care of myself.

Another area where there seemed to be some similarities between both groups is that they could often identify areas of need within themselves. This is evident in the aforementioned quote and others:

- “Over the course of four or five years, my weight grew from about 225 to over 300”
- “I think my issue is sleep. I know I'm not getting enough sleep because, throughout the night, I wake like with these worries that I've forgotten to do something and then I can’t go back to sleep. So, I know that a lot of my decisions-- I'm not making good decisions during the day because I'm sleep deprived.”

However, there were much different approaches to the identification of these needs. In the group whose self-reported habits were high, they spoke of their personal needs like someone giving directions to their house. They were very familiar with their own needs and found ways to meet these needs to function at the highest level. The group with individuals who reported much lower self-care habits spoke of their needs in a much more diagnostic way. They could identify or explain their weakness but offered little in terms of how they addressed areas of need, suggesting they were more likely to remain unmet.

At this point in the moderation of the focus group, the protocol suggested moving on to another emotion. However, the conversation took an unexpected turn that uncovered another strikingly alternate viewpoint between both groups. During the conversation about stress maintenance, group two began to discuss how they were perceived. This conversation began when a participant shared a story about a particularly challenging human resource situation that he had to make a difficult decision on. What resulted was a conversation around the internalization of how each member of this group was perceived and how it affected them emotionally and physically. A member of the group with several years of administrative experience shared the following experience:

> You've got to separate your decisions and your actions from who you are as a person to a certain extent because if you have a bunch of wins in a row, then you can get kind of

> blinders on, and you can start acting on your own things and get yourself in a bind quick. But, at the same time, if you don't have that, if you dwell on every loss, and you can't come in the next day and say, "Well, I'm not a bad principal, but I made a bad call today." Then, that's going to impact your performance long haul.

Another leader shared that she had to make a hard decision that made several people upset and that she knew she would be stressed for several weeks until the time when her decision had passed. One person explained the challenge of working in the district where he grew up:

> I've only been in one district, I've only led in one district, I've only taught in one district, and I've grown up in this district, and so that adds a certain level of stress where you go places and confrontation is sometimes at a ball game, confrontation that happens with somebody that you may have grown up with or known, and that sort of thing. [I] found myself circling Walmart or circling restaurants, and if a certain student's family was there, I wasn't stopping. I wasn't going. I was going to go somewhere else, and so that is a strain; that is a stressor.

A woman in her second year of serving as a principal admitted that she had to find a way to alter the way she felt at work:

> like I have to be in control of everything and know everything. I hadn't been able to let go of that grip. I've got to be-- I've got to be the first one at school every morning. I've got to be the last one to leave. And stop feeling guilty about it if I'm not the first one here every morning and if I'm not the last one to leave. I've got to let that go because it doesn't make me any less of an administrator if I leave before 5 o'clock or if I don't get here until 7 o'clock.

Clearly, the fact that this discussion did not happen in the group with higher self-care habits does not suggest that those individuals did not experience similar feelings. However, this became one of the dominant pieces of the conversation among the second group. The first group shared their proactive approaches to meeting their personal needs. This presented a clear path between their self-awareness and their desire to function at their highest level by means of self-care practices that were already established. They were not arrogant or self-absorbed; however, it was clear that they valued the ability to meet their individual needs. The second group seemed much more concerned with the needs of others. One leader shared, "You want to take care of

everybody else. You want to take care of the kids at your school. What little time you have left, you think, 'I can't use this time on me.'" Two others agreed:

- "I put the kids first, I think, by any means necessary. It's going to be whatever it takes. And if that means I don't eat lunch, or I don't eat whatever, I'm going to do whatever it takes, and I am neglecting myself."
- "I honestly think that it's our need to help everybody else, kids first. I mean, I think every single one of you would agree that whatever it takes to make sure those kids are successful and be better than what we are. And we're willing to back off on our own health and our own well-being to make sure that those kids get what they need in order to be successful."

In fact, of the five participants in the second group, only one did not make a direct comment tying their desire to do anything for their school with their willingness to deny themselves their basic needs. It is possible that these responses could have provided a rationalization of how they got to their current reality of repose toward self-care. When compared with the first group who said they actively encouraged self-care among their staff, celebrated the "less-is-more" mentality when possible, and tried to model good personal care, there is a significant difference in approach.

Where the four open-ended questions of the survey provided insight into the job-related aspects of being a principal that impacted self-care, the focus groups allowed for the researcher to isolate beliefs and perspectives within the individuals that could also correlate with their practices. Among the group of leaders with strong self-reported habits, there was a consensus of proactive pursuit of the fulfillment of their needs in order to be successful. They were willing to adjust expectations or explain to others the specific actions they took in order to ensure that they were successful. Within the second group, there was a much higher value placed on the opinions and perceptions of others. The success of the school and the perception of these leaders were worth sacrificing their fundamental care. Additionally, they suggested that student success, above all other concerns, was worthy of whatever personal sacrifices they had to make. Both

groups managed to articulate the areas in their life that they were either actively compensating for or where they felt that they were currently failing. Notably, the first group moved quickly through the conversation on stress and found a natural progression to the fulfillment they found in the balance and success of their personal and professional lives. The second group found the conversation on stress to involve a more debilitating level of stress associated with the pressure of public perception and the success of everyone around them.

Ultimately, the psychology and behavior associated with self-care is as complex as the individuals being studied. However, the quantitative data presenting the case of self-care among Arkansas educational leaders suggest that there is cause for concern. The qualitative data indicate that there are experiences, beliefs, and perspectives that could be used along with current research on best health practices to present a both a case and a means for intervention among practicing leaders.

CHAPTER FIVE—DISCUSSION, RECOMMENDATIONS, CONCLUSION

Problem Statement

Educational administrators, a vital element to the success of the educational structure, find themselves at the mercy of a position full of ever-increasing complexity. The job is one that results in feelings of "ultimate responsibility," which potentially compound as the leader works to uphold this unrealistic expectation (Spillane & Lee, 2013). The pursuit of ultimate success for all often results in administrators who choose to sacrifice themselves as a means of achieving success for their schools. Research from New Zealand suggests that principals experience significantly higher rates of burnout (1.7 times), stress (1.8 times), and sleeplessness (2.4 times) than other professions (Nicoll, 2018). Closer to home, a recent survey of principals in Washington D.C. showed that 67% of administrators had intentions of leaving their positions within the next five years (Moore, 2018). These studies and others like them were catalysts for the formation of this research.

The purpose of this study was to examine self-care habits among practicing Arkansas administrators in light of current research to determine whether these habits could be limiting their effectiveness and overall wellness. Next, qualitative data specific to the phenomenon of self-care within educational administration were collected to shed light on the current state of Arkansas educational leader health. These data additionally sought to uncover systemic or job-based factors that could be impeding or affecting the promotion of positive self-care among leaders. Each of these goals ultimately converged at an active pursuit of data that could positively impact the overall health and effectiveness of educational leaders in Arkansas.

Results in Light of Context

This work sought to build a practical bridge between current research and the depiction of the impact of self-care practices on human function and behavior as well as the practices of educational leaders in the state of Arkansas. Quantitative data collected through a survey allowed the researcher to present a picture of the current state of health care practices for leaders in the state in relation to preselected areas of self-care chosen to align with Maslow's "A Theory of Human Motivation" (1943). Subsequently, qualitative data were collected in focus groups with practicing Arkansas educational leaders to discuss any possible correlation between their personal self-care practices and their roles. An additional, an unintended result of the qualitative research is that it gave voice not only to quantitative data collected throughout the state but to the very research that formed the foundation for this study.

The contextualization of this work lies in the competition for time and human performance between increasing demands on educational leadership and basic human needs. The survey data indicate that Arkansas administrators (38.7%) are more likely than the average American (35.2%) to get less than seven hours of sleep (Hirshkowitz, 2015), 6.5 times more likely to miss lunch at least once a week (354) than to eat lunch every day (54), and over 11 times more likely to be above their ideal weight (422) than at their ideal weight (38). Additionally, building principals reported spending 16.55 hours a week more than the average American (44) at work. Despite an overwhelming 71% who said that time spent with family was the most important thing to them, over 60% of respondents reported being with these key people two hours a day or less. Although not comprehensive, these data alone present a potential for an imbalance among respondents. However, the quantitative data alone were not sufficient to confirm the existence of a correlation between these negative practices and the role of

educational leaders. Qualitative data collected through open-ended questions and focus groups allowed practitioners to tie their practices to the expectations of the role. The qualitative data supported the finding in the existing literature presented in Chapter 1 on the increasing demands of principals while also supporting the existence of an issue at the confluence of these demands and the biological necessity of human self-care. In response to being able to comment on which aspects of educational administration promote positive self-care habits, 44% (204) of the respondents provided answers that suggested that they knew of nothing or very little about their role that promoted their personal self-care. Furthermore, just over half of respondents felt incapable of changing their roles to accommodate these needs.

Ultimately, the amalgamation of the data provides evidence for the idea that the three research questions chosen to guide this study are appropriate for use in determining the self-care of administrators in Arkansas. First, there is a diverse and well-documented base of current literature that supports the assumption that basic human self-care has the ability to impact or impede biological, neurological, and behavioral function. Second, quantitative data representative of a quarter of practicing educational leaders across the state of Arkansas have allowed the researcher to identify many individuals whose health habits could potentially contribute to potential cognitive and functional impairment. Finally, the qualitative data collected from the entire sample as well as targeted focus groups suggest that practicing administrators feel, in large part, that their role competes with their ability to meet their personal needs.

Results in Light of the Literature

The data collected for this study came from several existing pieces of research. Structurally, this research rests on the concept of Maslow's hierarchy of needs (1943). Established to draw out a direct correlation between job satisfaction and psychological well-

being (George, Louw, & Badenhorst, 2008), this theory was chosen to provide an infrastructure upon which further research could be organized. Within each tiered level of need, self-care habits were chosen based on their universal application and the ability for participants to easily reflect upon the presence of those habits in their everyday lives. Finally, biological, neurological, and behavioral research that could produce a relatable correlation between these habits and their ability to potentially alter human performance was highlighted. Of significant importance was the ability to define human needs and functions applicable across all levels of society in order to ascertain whether or not these universal needs could be affected within the specific role of educational leaders.

Where this research has potential to add to the literature is in isolating self-care habits in practice among educational leadership. This could inform studies in longevity and retention, school improvement, educational ethics, and decision making. Issues specific to the complexity of administrator duties (Horng et al., 2010; Harris et al., 2010), the challenge of time management and constant cognitive demand (Grissom et al., 2015), and the amount of time spent on the job (Lavigne et al., 2016) were all consistent in this research and literature that framed it. An interesting addition to the tangible attributes of the job were perceptions and belief systems that accompanied the choices behind the adoption of particular habits. Examples of these included leaders who expressed that they felt they had to be available to their staff at all times, those who felt they would be seen as lazy for choosing a time to finish their days at school, and those who believed that it was their responsibility to unilaterally put their students and teachers ahead of themselves. When combined, the expectations of the role and the perceptions driving the behaviors of leaders are significant in light of this research.

Physiological Needs

Sleep deprivation is associated with a higher risk of human error (Goel et al., 2009), decreased attention, memory, and learning (Goel et al., 2009), altered neurological processing (Acheson et al., 2007), emotional control (Tempesta et al., 2010), and impairment of ethical decision making (Yang & Raine, 2009). Fewer than four out of 10 administrators in the state of Arkansas reported receiving seven hours of sleep or more. This figure suggests that the majority of leaders in schools could be experiencing limited cognitive function associated with partial sleep restriction. Research suggests that members of this group are less aware of their progressively increasing need for sleep (Van Dongen, Rogers, & Dinges, 2003) and will require substantially larger amounts of sleep to fully recover (Van Dongen, Maislin, Mullington, & Dinges, 2003). Additionally, 17.4% of respondents reported getting six hours of sleep or less nightly, which according to research on partial sleep restriction, will result in neurological function comparable to operating at a 0.10% blood alcohol concentration (Dawson & Reid, 1997) after only two weeks (Goel et al., 2009). Nearly 80% of participants reported experiencing at least one night each week when they struggled to fall asleep, and another 74%reported waking up at least once three or more nights during the week.

Research also indicates that nutrition can affect risk sensitivity (Kahneman, 2011), memory (Francis & Stevenson, 2013), neurological function specific to the PFC, and energy consumption (Davidson et al., 2012). However, 62% of respondents reported being at least 15 pounds overweight, with nearly a quarter of all participants classifying themselves as 45 pounds or higher above their ideal weight. Additionally, 87% of participants reported missing lunch at least one time per week, with 40% missing lunch three or more times weekly. These data are interesting because they are a reflection of nutritional decisions being made while administrators

are on the job, suggesting direct ties to the responsibilities and expectations of their jobs. Among the 40% of leaders missing lunch three or more days a week, it becomes much more likely that there are days when they are making high-level decisions with little to no nutritional support from breakfast or lunch. There is no way to assure that such a glaring unmet need is not impacting decisions made by principals, as in the case of Israeli judges whose grants of parole significantly increased after lunch (Kahneman, 2011).

Hydration also appears to affect brain size and structure (Kempton et al., 2009), mood (Armstrong et al., 2011), cognitive and motor skills (Watson et al., 2015; Kempton et al., 2011), and even pain susceptibility (Ogino et al., 2014). Nearly 80% of responding educational administrators reported having fewer than eight glasses of water each day. However, 36% of participants reported having three or more diuretic, caffeinated beverages daily with barely 10% of respondents reporting abstention from caffeine.

Safety and Security

The juxtaposition of the current literature on the effect of these foundational needs and the picture presented of Arkansas educational leaders in this study suggests that there is a potential impact on functional and behavior performance due to unmet physiological needs across the state. Next in sequence through the progression of needs and their potential to compete with cognition are habits designed to provide safety and security (Maslow, 1943). Through the lens of self-care practices, the author of this study chose to focus on habits that actively promote physical and mental health and security. As decision makers, educational administrators who regularly exercise could see benefits of improved executive function (Voelcker-Rehage et al., 2011), significant increases in memory (Hotting & Roder, 2013), enhanced function within the PFC (Basso et al., 2015), and speed of processing (Moul et al., 1995). The same self-care habit

has been tied to reduced reports of anxiety and depression (Brosse et al., 2002), mood enhancement, and elevated perception of overall mood (Anderson & Brice, 2011). Unfortunately, data collected from this research indicate that this active habit for mental, physical, and emotional preservation is often excluded from the lifestyles of Arkansas educational administrators. Only 16% of participating leaders in the state reported getting 150 minutes a week of aerobic exercise as recommended by the Department of Health and Human Services. A total of 54% of respondents reported getting the equivalent of 60 minutes or less of aerobic exercise a week.

Mindfulness or other forms of meditative practice are additional means of active self-preservation with cognitive and physical benefits. Meditative practice has shown benefits in terms of memory, attention, and executive function (Chiesa et al., 2011). Mindfulness has a particularly significant impact at the neurological level through the regulation of emotion (Doll et al., 2016), control of emotional stimuli (Farb et al., 2007), the suppression of neural automaticity (Moore & Malinowski, 2009), and the potential to lower neurological sources of anger (Fennell et al., 2015). When asked about the presence of mindfulness or other meditative practice in their lives, 47% of educational leaders in Arkansas reported never having engaged in these practices. However, 18% said this was part of their daily routine, but nearly 60% said they engaged in meditative practice no more than two to three times monthly.

Belonging and Love

In framing this research, the decision was made to progress beyond the habits that could be conflated with those present solely to preserve physical health and also include the third-level needs of relationship and belonging. Within this tier of needs, the focus begins to shift to the fulfillment of emotional and behavioral desires rather than physical cravings. As expressed in

Chapter 3, relational belonging is extremely complex to measure. All individuals bring with them differing sets of values, beliefs, and normative rights or obligations associated with the roles they hold (Thoits, 2011). It would be plausible to suggest that family roles were especially defining among the Arkansas administrators studied since 70% said this was the most important aspect of their lives. When including those who said that family was their second priority, the percentage climbs to nearly 99%. However, 80% of these same respondents reported spending less than three hours a day with their families. Even more drastic were the 20% who said they did not even have an hour each day with their families. Thoits (2011) argued that there is a direct correlation between the acceptance or importance of a role-based relationship to an individual and the impact upon behavior. For leaders whose jobs, perceptions of their roles, or professional expectations cause them to knowingly deprive themselves of these defining relationships, the result could be failure in the very aspects of their life that mean the most to them. This is particularly concerning in light of findings that suggest that one in two educational leaders in Arkansas perceive an expectation to actively choose work over their personal lives three or more times every week.

The physiological needs of human beings will be met at some level even by the least healthy of individuals even if only by means of survival. As seen in the literature review, even though people eat, consume water, and sleep, they could be unknowingly impacting their performance through the quality of their habits around these needs. However, as the progression continues to more active habits of self-preservation, a clearer delineation is drawn between those who prioritize certain habits and those who do not. It is important to note that Maslow contended that the most important tier of need was the physiological because of the inability for one to progress throughout the hierarchy until these needs are met (Maslow, 1943). Any one of these

elements could be individually highlighted, but their aggregation is where the situation begins to feel dire. To simply state that 40% of respondents reported less than seven hours of sleep nightly is significant given the sleep restriction data discussed in this paper. However, when considered in conjunction with the fact that 42% said that they struggle to fall asleep three nights or more a week and that 74% reported experiencing interrupted sleep at least three nights a week, the problem takes on new levels of complexity. A similar comparison could be completed for nearly every identified need: water consumed versus caffeine consumed, weight versus exercise, and time at work against time with family, among others. The literature review in this paper is presented in such a way as to highlight specific examples of self-care. However, many of the participants could be potentially negatively impacted across a broad spectrum of what was detailed in Chapter 2. This could be viewed through two different lenses. The first is the compounding effect upon performance that a potentially sleep-deprived, obese, dehydrated principal who never sees his family could experience. On the other hand, the optimist sees significant room for growth where there are multiple failings. This is where the results of the value-added score comparisons become meaningful.

The decision to assign a value-added score to participants allowed for comparisons between groups while also providing an opportunity to measure overall self-care in light of one specific habit. As a result, there is new information worth considering for potential intervention. First, females reported significantly worse self-care habits than men even when broken down by role. Second, there was an even more significant difference between the reported habits of principals and those who assist them in an administrative role. Potentially even more interesting are the results found when comparing those who excelled in a particular habit with those who did not. When measured across seven different categories representative of all the identified self-care

habits, these individuals demonstrated significantly stronger self-care habits overall than their peers. The data imply that simply focusing on a single self-care habit could provide significant overall health improvements. This is powerful information for future research and intervention design. Rather than asking leaders to monitor a diverse range of habits simultaneously, they could make singular habit adjustments that could significantly improve their overall health and ability to continue their progress toward their best possible selves. This type of intervention requires identification of the needs of each individual leader as well as a clear understanding by leaders of what it means to improve their personal deficiencies. However, this information takes this research beyond identification of an issue to the beginnings of a practical design to improve the effectiveness of school leaders.

Within the qualitative data collected in the survey, there are clearly defined divisions in terms of both the locus of control in the lives and professions of leaders and in their decision to be proactive in the pursuit of their own care. Interestingly, these qualitative data were used to add depth to the quantitative picture through the use of the value-added score comparisons among participants with different perceptions of who had control over change. Statistically better overall self-care habits among those who expressed personal control over their self-care has implications for future research and supports the findings of previous studies that suggest that principals with more of an internal locus of control are more likely to experience higher job satisfaction and less stress (Lim, 1995). Based on this finding, it is not enough for an educational leader to know about appropriate self-care habits, their effect on their performance, or even specifically which habits are deficient in their personal lives. All of this information could be easily discarded in the event that someone does not realize the importance for them to personally take responsibility for change within the parameters or the role or situation they are in. This seems to support data

collected from the two focus group sessions. The group whose reported habits were much higher frequently expressed how they personally understood or learned their need for self-care and how they tried to be proactive in maintaining their established habits. The other group, though highly motivated by time with their families, was much more passive in their approach. The conversation felt as if the habits in their lives had happened to them rather than as a result of personal action. Where the need to change was expressed, there was little conversation around the specific details or actions that would move them forward in their pursuit of better self-care and function.

Additionally, when comparing responses from the two participating focus groups, there seemed to be a greater focus on the physiological needs among the group whose self-reported habits were healthier. These individuals seemed especially aware of their personal need of adequate sleep and nutrition. They even could describe their perceived limited function when these needs were unmet. They also described active habits of self-care present in the form of exercise, mental refreshment, and stress management in their lives. The conversation with these individuals suggested a very proactive approach to the fulfillment of their needs as humans in order to function at their highest level. Conversely, those whose habits were less healthy were much more reactionary in their approach to their needs. They referenced their need to do better, their health, or even specifically how a certain habit affected their lives negatively in ways that suggested that they had yet to adjust their practices to meet the needs they were describing. Interestingly, this group seemed to focus much more on their need for relationships or belonging. As a whole, their conversation suggested that they placed substantially more value on other people in their life than on themselves and were often most troubled by their inability to meet their intrinsic demands as spouses, partners, or parents. As noted in Chapter 4, the belief that the

needs of others outweighed personal wellness was prevalent among participants. The conversation with the group whose reported habits were stronger also placed a great deal of importance on their loved ones, but the need for stability in their relationships seemed to work in conjunction with their needs as individuals rather than in place of them altogether.

Results in Context of Methodology

The methodological approach of this study had two primary goals. The first goal consisted of gaining clarity and understanding around the current state of self-care practice among educational leaders in Arkansas. The choice for an online survey instrument was appropriate in that it allowed for easy access to individuals throughout the entire state while not requiring anything of participants beyond access to the Internet and the time needed to complete the survey. The survey questions provided both quantitative and qualitative data based on the three foundational tiers of Maslow's hierarchy (1943). There were some questions within the survey that provided data deemed unworthy of reporting due to the lack of definition in the responses. These questions asked participants about their participation in hobbies and vacations but left a great deal to interpretation in terms of what constituted a hobby or a vacation and were omitted as a result. Although the survey collected a good deal of demographic data from the participants, one particular question that could have provided further depth to the study was the classification of the school. Understanding the job-based stress across schools of different sizes would have been powerful information with which to inform this research.

The focus groups in this study added significant depth to the data collected through the survey. The choice to build them based on the self-reported habits of administrators also allowed for comparison between both groups and the identification of contrasting beliefs or views. However, coded data across several focus groups representing each side of self-reported habits

would have added more credibility to the data. Additionally, the focus group and survey data were all collected between July and September when schools were either about to start or had just begun. It is possible that the data would have been slightly different if collected later in the year as a result of new administrators having more experience and seasoned administrators having just gone through some of the day-to-day challenges associated with the role.

This research leaned heavily on self-reporting and perception. Every piece of data is at the mercy of the ability of the participants to accurately portray their own lives. A significant effort was made to craft questions that would encourage participant responses—sometimes at the expense of the quality of the data collected. An example of this was the survey question intended to measure the nutritional value of the participants' diets based on their weight. Because of the sensitivity of this question, multiple revisions were made before this question was finally included in the survey. To increase response consistency in a way that aligned with national and state records, participants could have been asked to report their categories based on a research-based BMI chart. However, because of the difficulty and personal nature of asking someone to identify themselves as obese, there was concern for reliability and accuracy of answers using this format. There is great potential for possible extensions to this research through experimental studies on the effects of intervention among practicing educational administrators. While still potentially utilizing self-reporting, an experimental study could collect data from co-workers and even researcher observations while allowing for a more scientific data collection process with stronger data.

Implications for Future Practice and Research

Of the participating Arkansas educational administrators in this research, 40% are sleep deprived, 62% are at least 15 pounds overweight, over 80% go one day a week or more without

any meals during their work day, 80% are not getting enough water, 86% get less than the recommended amount of cardiovascular exercise, 47% never engage in meditative practice, 80% spend less than three hours a day with their family, and collectively, they average 15 hours a week more than the typical American on the job. In light of these findings, it seems nearly impossible to believe that Arkansas schools are getting the best out of these critical individuals. The data imply the existence of a large-scale issue impacting educational leader performance, health, behavior, ethics, and longevity exists across Arkansas. In terms of future practice, this research could inform efforts to educate leaders across the state, to implement and study possible intervention strategies to improve self-care habits for leaders, and to inform conversations in governing bodies at the state and local levels. Where action is taken, further research could study the performance improvements of leaders, schools, and organizations who choose to prioritize self-care practices. A great deal of the research presented in Chapter 2 suggests that negative effects of poor self-care habits can be corrected over time, with restorative results for individuals.

Critical Knowledge Gaps

This research, in light of existing literature, presents three substantial learning gaps among practicing administrators:

1. School leaders are not fully aware of how powerful and insidious poor self-care can be in negatively affecting their job performance
2. Administrators are slow to recognize their own personal and professional habits as examples of poor self-care
3. They often lack the knowledge and skills to appropriately identify low cost and high impact strategies for improving their personal health

Addressing Awareness

Before meaningful change can occur, there must be an understanding of the need and purpose of the change. Currently, school administrators must hold a Master of Educational Leadership Degree with a state certification achieved through a formal assessment. Additionally, these programs typically require a potential applicant to have a minimum number of years of teaching experience prior to being considered for admission. While potential leaders are trained in curricular, financial, and managerial aspects of the job, there is often little in the way of training around their personal care. Likewise, in mentorship and internship programs for novice leaders, components of self-care and personal health are not presented as vital to the role. Consequently, self-care becomes more of a personal discovery based out of the need for self-preservation rather than a preparatory means of ensuring success from the onset. New administrators will prioritize what they believe is necessary to be successful. Without building understanding around the impact of self-care on performance, failing in self-preservation could be a strong motivator behind the high turnover of principals. However, simply positioning this learning at the beginning of a leader's career does not ensure that they will employ it. Rather, creating a culture of induction into the profession which establishes an expectation of self-care greatly increases the likelihood of healthier, more effective leaders.

For practicing administrators, learning around self-care requires intervention. Research such as this could be presented in conferences and professional gatherings to ensure large-scale learning. However, a more local approach would provide greater opportunity for immediate success. In the same way that leader preparation programs can set the standard for induction into the profession, district-level leaders can begin to change the paradigm to include a professional standard of personal self-care within their organizations. However, because of the personal

nature of self-care that happens outside of the work day, the district leader must consider how this standard is exhibited in schools. District resources should reflect a desire to educate and provide means for leaders to practice strategies that will impact their overall effectiveness and longevity. Practically, this could occur in targeted professional development on the relationship between self-care and job performance, regular collaborative learning around how self-care is improving individual lives within a district, and even school or district-wide initiatives around proactive health.

The data gathered in this study confirms the notion in the literature that school leaders are inclined to be "other" oriented. This means that they tend to be intrinsically motivated by how their own sacrifice is an important part of the success of the school staff and students they serve. This self-identity as the sacrificial leader is inherently at odds with many self-care behaviors and in fact many leaders believe that if they are seen as being healthy and at ease with the demands of the job then others won't see them as working hard enough or sacrificing enough for the good of the school community. Unpacking that deeply embedded school leadership culture is no small task but there are ways to leverage it in favor of more positive self-care behaviors. Leaders who may be quick to dismiss efforts to shine a spotlight on their own self-care may more easily identify with a more holistic and healthy approach to the care of students and staff. The literature abounds with examples of how the whole child approach to schooling has important positive effects on the cognitive and social-emotional growth of students. Likewise, we have long been aware of the importance of stemming the tide of teacher burnout. Ideally school leaders would see the benefit of their own self-care without the need to connect it directly to the health and productivity of others. However, absent that understanding there is a clear need for school leaders to create a vision for the overall health of every person in their school, to execute systems

for sustaining physically and emotionally healthy students and staff, and to lead by modeling those behaviors through their own visible self-care. It is in this context that districts will be emboldened to demand and monitor the positive self-care practices of administrators in the same way we expect them to be instructional leaders, moral role models, and exhibit the highest standards of professional norms.

Addressing Self-Diagnosis

Both the quantitative and qualitative data from this research suggest that practicing administrators have difficulty in identifying and addressing aspects of their professional practice that constitute poor self-care. This is compounded by the many participants who voiced no personal control over their ability to impact these practices. To address this requires a change in practice through directed intervention and accountability. These elements are not unlike the processes in place for teacher evaluation. Drawing from existing literature, district-level leaders should provide directed support of the principals in their schools. This would begin with a personal assessment which asks both the leader and an associate to provide data on the self-care habits exhibited during the school day. By including an associate that works closely with the leader, a truer representation of the current reality is possible. The results of this assessment would serve as a personalized improvement plan for the leader. As stated earlier, this self-care improvement plan could become part of the professional expectations for leaders within a district. After baseline data is established, the leader would then utilize a method of progress monitoring to show growth toward a goal. An example of this would be a leader who is not adequately hydrated during the day. By recording and tracking glasses of water, the leader has data to show growth toward their goal as a means of accountability to both their associate and superior.

This type of progress monitoring will only be truly taken seriously if it is considered a professional norm for leaders within an organization. Take, for instance, student performance data. Where a leader is not expected to account for the performance of the students, some will be intrinsically motivated by a goal in this area while others may prioritize other aspects of running a school. If a district leader has a professional expectation that building principals will bring data on how they are monitoring a targeted self-care need, this level of accountability will drive change. Without a system of identifying areas of concern and ways to monitor them, administrators will focus their efforts on what they value, which this research suggests is quite often everyone else. The ultimate goal in putting systems in place that hold leaders accountable is to provide them the skillset to be self-diagnosing to the extent to which they prepare themselves to be successful within the day due to their knowing that there are specific things that could be compromising the quality of their work. This personal ownership within the system is where self-care truly becomes a professional expectation within an organization.

Addressing Strategic Improvement

Once administrators understand how negative self-care inhibits their effectiveness and there is a system to establish and monitor professional expectations or self-care, districts must next provide support for leaders to practice healthy habits. This aspect most significantly tests the support for administrator self-care because it requires the allocation of resources. There are many ways in which a school district could provide support to leaders. One of the simplest is to establish a fund specific to each building leader associated with the promotion of their personal self-care. These funds should be directly tied to the identified areas in the leader self-care assessment and monitored with district leadership. This could provide a gym membership, a healthy meal preparation service to be delivered to school, free salads or nutritional meals

provided within the cafeteria, or the cost of entry to a half marathon. This adds another layer of support and accountability to the establishment of these healthy practices by using district money to build a culture that expects and celebrates the health of leaders. Leaders operating in this culture are much more likely to establish similar environments with students and staff as well.

Future of Data

Data collected through this research provide many opportunities for continued study. The choice was made for this research to primarily focus on the identification, application, and framing of self-care habits within the state of Arkansas as a means of developing practical application and intervention for leaders. This research serves as a figurative call to action which is universally applicable in the ability to support all school administrators. However, the data set has the ability to significantly inform the parameters around the phenomenon of educational leader self-care. Subsequent to the completion of this work, the data will be used to study performance, social, demographic, and structural trends to help further understand potential motivators or influencers of administrator self-care. Value added scores will be measured alongside school performance to determine the correlation between reported health among leaders and the academic performance of their school. Further study of race, sex, age, and location of leaders within the state in comparison to their overall self-care will provide greater insight into possible cultural, ethnic, or demographic pieces which could influence leader health. Administrator self-care in relation to the classification size of their school district will allow for discussions around the possible school and district structures contributing to overall leader support and welfare. Study of results in light of rural and urban school districts in the state further highlight structural and community elements which could compete with the practices of the leader. These data will be presented to the Arkansas Department of Education and provide

the foundation for further academic writing and publication as well as practical intervention strategies to be employed within school districts across the state. Production of research-based tools for education and intervention will provide resources worthy of consideration for schools and leaders. Finally, in order to see that these tools are effective in their use, further research around the psychology of effective self-care practices and the perception of locus of control will provide knowledge necessary to ensure true implementation and lasting change for all leaders.

Conclusion

Nelson Mandela said, "Education is the most powerful weapon which you can use to change the world" (Strauss, 2013). In this statement lies both the relevance and the crux of this research. Where education is seen as one of the most important aspects of societal evolution, its success must be a constant pursuit. Furthermore, if schools depend greatly on those who lead them, there should be a concerted effort to fortify these important individuals. This research connects the current literature on self-care and human performance to the people who have the power to change our world. Unfortunately, this connection indicates that there may be cause for concern not only in the ability of these individuals to operate at their peak but to even function as healthy human beings. However, a second look at the quote shows the potential of this study. Meaningful change across schools will only happen as a result of the education of those who can bring about such change. Where there is no understanding, there will be no perceived need for change. As such, this work has the potential to serve as a powerful weapon in its ability to universally identify the necessity of healthy educational leaders, the importance of self-care habits in human performance, and the need for conversations around meaningful change aimed at promoting healthier, happier leaders in schools.

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Appendix A: Educational Administrator Self-care Assessment Survey

Arkansas Administrator Self-Care

Start of Block: Default Question Block

Consent for Participation in Online Survey Research I volunteer to participate in a research project conducted by Joshua Ray, as part of his research in pursuant of the degree of Doctorate of Educational Leadership from the University of Arkansas. I understand that the project is designed to gather information about the physical self-care habits of building administrators and how they are influenced by and influence the role of educational administrator. I understand that all practicing building administrators in Arkansas were given the opportunity to participate in this survey. 1. My participation in this survey is voluntary. I understand that I will not be paid for my participation. I may withdraw and discontinue participation at any time without penalty. If I decline to participate or withdraw from the study, no one in my district or at the University of Arkansas will be told. 2. I understand that if I feel uncomfortable at any point in completion of the survey, I have the right to decline to answer any question or to end my participation altogether. 3. I am aware that participants typically spend between 10 and 15 minutes completing the survey. 4. I understand that the recording and reporting of data from this survey will not be personally identifiable. Data collected from this survey will be coded and protected via cloud-based, password-protected storage. Subsequent uses of records and data collected in this study will be subject to standard data use policies, which protect the anonymity of individuals and institutions. 5. Faculty and administrators from the University of Arkansas will not have access to any individual survey or data that could be personally identifiable to any participant of this study. This precaution will prevent any comments from having any negative repercussions. 6. I understand that this research study has been reviewed and approved by the Institutional Review Board (IRB) for Studies Involving Human Subjects at the University of Arkansas. For research problems or questions regarding subjects, the Institutional Review Board may be contacted on campus. 7. I have read and understand the explanation provided to me. I have had all my questions answered to my satisfaction, and I voluntarily agree to participate in this survey. 8. I understand that by clicking agree, I consent to the terms of my participation in this survey and will be directed to the survey for my completion.
For further information or questions, please contact: Joshua Ray
Joshua.ray@greenwoodk12.com Dr. John Pijanowski jpijanow@uark.edu For questions or concerns about your rights as a research participant, please contact the University of Arkansas

IRB University of Arkansas IRB On campus, by email at irb@uark.edu, or by phone at 479-575-2208

- ○ I consent (1)
- ○ I do not consent (2)

Skip To: Q1 If Consent for Participation in Online Survey Research I volunteer to participate in a research p... = I consent

Skip To: End of Survey If Consent for Participation in Online Survey Research I volunteer to participate in a research p... != I consent

Q1 What is your gender?

- ○ Male (1)
- ○ Female (2)

Q2 Please describe your race/ethnicity

- ☐ American Indian/Alaskan Native (1)
- ☐ Asian (2)
- ☐ Black or African American (3)
- ☐ Latino (4)
- ☐ Pacific Islander (5)
- ☐ Caucasian (6)
- ☐ Other (Please Specify) (7) _____

Q3 What is your age?

_____

Q4 How many years of building administrator experience do you have?

_____

Q5 How many years have you been a building administrator in your current school?

_____

Q6 What is your current title or position?

- ○ Principal (1)
- ○ Assistant or Vice Principal (2)
- ○ Dean of Students (3)
- ○ Other (Please Specify) (4) _____

Q7 What grades of students does your building house? (example k-6, 6-8, 9-12, etc.)

_____

Q8 Which Arkansas county does your school district reside in?

▼ Arkansas (1) ... Click to write Choice 76 (76)

Page Break

Q9 What time do you get up in the morning during the work week?

_____

Q10 What time do you typically fall asleep during the work week?

_____

Q11 What time do you get up in the morning on the weekend or non-work days?

_____

Q12 What time do you typically fall asleep on the weekend or non-work days?

_____

Q13 How many nights do you find it difficult to fall asleep during the work week?

	0 1 2 3 4 5
Nights per work week ()	

Q14 How many nights do you wake up from sleep at least once during the work week?

	0 1 2 3 4 5
Nights per work week ()	

Q15 When you wake up on a work day, you typically feel:

- ○ Refreshed and rested (1)
- ○ Somewhat rested (2)
- ○ Somewhat fatigued (3)
- ○ Fatigued (4)
- ○ Exhausted (5)

Page Break

Q16 How many days during the work week do you eat breakfast?

	0	1	2	3	4	5
Days of work week with breakfast ()						

Q17 How many days during the work week do you miss lunch?

	0	1	2	3	4	5
Click to write Choice 1 ()						

Q18 How many meals (including breakfast, lunch, and dinner) per week do you consume that were prepared away from home in places such as restaurants, fast food places, gas stations, or from vending machines?

- ○ Never (1)
- ○ 1-2 meals per week (2)
- ○ 3-5 meals per week (3)
- ○ 6-8 meals per week (4)
- ○ More than 8 meals per week (5)

Q19 In relation to your ideal weight you are:

▼ Ideal Weight (1) ... Underweight (3)

Q20 How many pounds are you from your goal weight?

- ○ 0 pounds (1)
- ○ 1-14 pounds (2)
- ○ 15-29 pounds (3)
- ○ 30-44 pounds (4)
- ○ 45-60 pounds (5)
- ○ More than 60 pounds (6)

Page Break

Q21 How many eight ounce glasses of water do you consume daily?

- 0-3 eight ounce glasses of water (1)
- 4-7 eight ounce glasses of water (2)
- 8-11 eight ounce glasses of water (3)
- More than 11 eight ounce glasses of water (4)

Q22 On average, how many caffeinated beverages do you consume daily? (including each cup of coffee, tea, soft-drink, etc.)

- 0 caffeinated beverages (1)
- 1-2 caffeinated beverages (2)
- 3-4 caffeinated beverages (3)
- More than 4 caffeinated beverages (4)

Q23 During an average work day, would you consider yourself typically

- Well hydrated (1)
- Adequately hydrated (2)
- Somewhat dehydrated (3)
- Dehydrated (4)

Page Break

Q24 About how many times in the average seven-day week do you engage in at least 30 minutes of aerobic activity (i.e. brisk walking, bicycling, running)?

	0 1 2 3 4 5 6 7
Click to write Choice 1 ()	

Q25 About how many times in the average seven-day week do you engage in muscle building exercise activities (weight lifting, push-ups, pull-ups, crunches, etc.)?

	0 1 2 3 4 5 6 7
Click to write Choice 1 ()	

Q26 Rate the following on how much they challenge your attempts to achieve your fitness goals.

	The extent to which each of these challenges your fitness goals			
	not a challenge (1)	somewhat challenging (2)	challenging (3)	very challenging (4)
lack of time because of work commitments (1)	○	○	○	○
lack of time because of time spent with family and friends (2)	○	○	○	○
stress (3)	○	○	○	○
lack of motivation (4)	○	○	○	○
physical fatigue (5)	○	○	○	○
mental fatigue (6)	○	○	○	○
self-consciousness (7)	○	○	○	○
dislike of exercising (8)	○	○	○	○
physical impairment (9)	○	○	○	○
Other (Please specify) (10)	○	○	○	○

Q27 How many days during the work week do you experience lulls or losses of energy where you struggle to be productive?

	0	1	2	3	4	5
Days of the work week with lulls or losses of energy ()						

28 How many days do you set aside quiet time to spiritually or mentally focus during a seven day week?

	0	1	2	3	4	5	6	7
Days with time set aside for spiritual or mental focus ()								

Q29 Do you practice meditation or mindfulness?

- ○ Daily (1)
- ○ 2-3 times a week (2)
- ○ Once a week (3)
- ○ 2-3 times a month (4)
- ○ Once a month (5)
- ○ Never (6)

Q30 How many hours do you typically spend working each week (including all extracurricular events, school-related functions, meetings, etc.)

_____

Q31 How many minutes per day do you communicate using email, text, or phone calls about work related things during your personal or non-work time?

- 0-30 minutes per day (1)
- 31-60 minutes per day (2)
- 61-90 minutes per day (3)
- 91-120 minutes per day (4)
- More than 120 minutes per day (Please include estimate of number of minutes) (5)

_____

Page Break

Q32 How many days do you set aside time to participate in personal hobbies or activities during a seven day week?

	0 1 2 3 4 5 6 7
Click to write Choice 1 ()	

Q33 When participating in personal hobbies or activities, how much time do you spend on average?

- 0-30 minutes (1)
- 31-60 minutes (2)
- 61-90 minutes (3)
- 91-120 minutes (4)
- More than 120 minutes (5)

Q34 How many hours are you actively engaged (not discussing work) with family or friends during a 5 day work week?

- more than 25 (more than 5 hours a day) (1)
- 20-24 (between 4 and 5 hours a day) (2)
- 15-19 (between 3 and 4 hours a day) (3)
- 10-14 (between 2 and 3 hours a day) (4)
- 5-9 (between 1 and 2 hours a day) (5)
- less than 5 (less than 1 hour a day) (6)

Q35 How often during the work week do you have feelings that you are sacrificing something important in your personal life because of the demands of your job?

- Never (1)
- 1-2 times (2)
- 3-4 times (3)
- 5 or more times (4)

Q36 How many days during an average year do you take a sick day from work? (not including days taken to care for loved ones)

- Never (1)
- 1-3 days a year (2)
- 4-6 days a year (3)
- 7-10 days a year (4)
- 11 or more days a year (5)

Q37 How many vacations do you take (including extended vacations and quick getaways) during a calendar year?

- 0 (1)
- 1-2 (2)
- 3-4 (3)
- 5 or more (4)

Q38 Over the course of a typical year, how many days do you spend on vacation?

- 0 days (1)
- 1-5 days (2)
- 6-10 days (3)
- 11-15 days (4)
- 16-20 days (5)
- more than 20 days (6)

Page Break

Q39 Please rank by priority the activities/responsibilities outside of work that are most important to you and/or help to define who you are as a person. (Drag each item to change their order)

_____ Family (1)
_____ Friends (2)
_____ Volunteerism/Philanthropy (3)
_____ Religious or Faith-based membership (4)
_____ Team or group membership (5)
_____ Mentoring or serving as a role mode (6)
_____ Other (7)

Q40 How many non-professional organizations do you belong and actively participate with (including church, teams, volunteer groups, social groups, etc.)?

_____

Q41 How many hours over the course of a week do you volunteer time either individually or as part of an organization in ways not specifically related to your role as building administrator?

_____

Page Break

Q42 In your opinion, what aspects of being a building administrator encourage good self-care habits?

_____

_____

_____

_____

_____

Q43 In your opinion, what aspects of being a building administrator discourage good self-care habits?

_____

_____

_____

_____

_____

Q44 If you could change your job to enable yourself to practice better self-care habits, what would you change?

_____

_____

_____

_____

_____

Q45 Do you have the ability to change aspects of your job that impact your personal self-care? If not, who does?

_____

_____

_____

_____

_____

Thank you for your time and participation in this study! A small group of Arkansas administrators will be chosen to participate in a digital discussion around self-care and the

challenges specific to the role of educational leader.

Would you be interested in providing your email address to be contacted by the researcher for the opportunity to participate in this discussion?

- ○ Yes (1)
- ○ No (2)

Skip To: End of Survey If Thank you for your time and participation in this study! A small group of Arkansas administrators... != Yes

Thank you! Please provide an email address and we will be in contact with you about this opportunity.

_____

End of Block: Default Question Block

Appendix B: Consent for Participation in Survey Research

I volunteer to participate in a research project conducted by Joshua Ray, as part of his research in pursuant of the degree of Doctorate of Educational Leadership from the University of Arkansas. I understand that the project is designed to gather information about the physical self-care habits of building administrators and the influence they have on the effectiveness of educational leaders. I and the other building administrators in my district account for one of 39 school districts in Northwest Arkansas invited to participate in this study.

1. My participation in this project is voluntary. I understand that I will not be paid for my participation. I may withdraw and discontinue participation at any time without penalty. If I decline to participate or withdraw from the study, no one in my district or at the University of Arkansas will be told.
2. I understand that if I feel uncomfortable in any way while answering survey questions, I have the right to decline to answer any question or to choose to not participate in the survey.
3. Participation involves answering a 42-question survey generated using Survey Monkey. The survey will take approximately 10-12 minutes to complete. No personally identifiable information including name, school district, or IP address will be collected or recorded for any participant of the survey.
4. I understand that the researcher will not have access to my name or identity, only the answers given during my participation in this survey, and that my confidentiality as a participant in this study will remain secure. Subsequent uses of records and data will be subject to standard data use policies, which protect the anonymity of individuals and institutions.
5. I understand that this research study has been reviewed and approved by the Institutional Review Board (IRB) for Studies Involving Human Subjects at the University of Arkansas. For research problems or questions regarding subjects, the Institutional Review Board may be contacted on campus.
6. I have read and understand the explanation provided to me. I have had all my questions answered to my satisfaction, and I voluntarily agree to participate in this study.
7. I have been given a copy of this consent form.

_____ _____

My Signature Date

_____ _____

Joshua Ray
For further information, please contact:
Dr. John Pijanowski
jpijanow@uark.edu

Appendix C: Focus Group Consent Form

Consent for Participation in Focus Group Research

I volunteer to participate in a research project conducted by Joshua Ray, as part of his research in pursuant of the degree of Doctorate of Educational Leadership from the University of Arkansas. I understand that the project is designed to gather information about the physical self-care habits of building administrators and how they are influenced by and influence the role of educational administrator. I will be one of approximately 10 people being interviewed for this research.

1. My participation in this project is voluntary. I understand that I will not be paid for my participation. I may withdraw and discontinue participation at any time without penalty. If I decline to participate or withdraw from the study, no one in my district or at the University of Arkansas will be told.

2. I understand that most interviewees will find the discussion interesting and thought-provoking. If, however, I feel uncomfortable in any way during the interview session, I have the right to decline to answer any question or to end my participation in the focus group.

3. Participation involves being interviewed as a group by Josh Ray. The interview will last approximately 90 minutes. Notes will be taken during the focus group session. An audiotape of the session and subsequent dialogue will be made. If I do not want to be taped, I will not be able to participate in the study.

4. I understand that the researcher will not identify me by name in any reports using information obtained from this focus group session, and that my confidentiality as a participant in this study will remain secure. Subsequent uses of records and data will be subject to standard data use policies, which protect the anonymity of individuals and institutions.

5. Faculty and administrators from the University of Arkansas will neither be present for the discussion nor have access to raw notes or transcripts. This precaution will prevent my individual comments from having any negative repercussions.

6. I understand that this research study has been reviewed and approved by the Institutional Review Board (IRB) for Studies Involving Human Subjects at the University of Arkansas. For research problems or questions regarding subjects, the Institutional Review Board may be contacted on campus.

7. I have read and understand the explanation provided to me. I have had all my questions answered to my satisfaction, and I voluntarily agree to participate in this study.

8. I have been given a copy of this consent form.

_____ _____

My Signature Date

Appendix D: Focus Group Protocol

Greeting and framing
Thank participants for agreeing to participate in focus groups.
Purpose of the interview is to discuss our roles as building leaders and the ways in which we as individuals cope, respond, and adapt to the stress and pressures associated with the job.
My goal in this process is to listen to you and to ensure that I fully understand your experiences and perspectives.

Hand consent form to participants: voluntary, stop or pause at any time, recorded, confidential

Overview
We will spend the first 15 minutes asking you to record some individual responses to prompts. These recorded thoughts are yours and I will not see or collect them at any point during our conversation. They are only used to be a help in your reflections during this process. As we take notes, consider your experiences as a building administrator and personally outside of serving in that role.

Hand cards to participants

1. **Happiness-**Thinking through time spent in your role of educational administration, when were times when you felt truly happy or fulfilled?
2. **Loneliness-**If I asked you to think of times when you felt lonely or disconnected, what two or three things come to mind? Take a few minutes to jot down on the card a few words or sentences to remind you of what came up for you
3. **Peace**-When you reflect on your leadership experiences think of times when you felt relaxation or tranquility professionally, personally, or in both arenas simultaneously, what comes to mind?
4. **Anxious, nervous-**times when you found yourself being truly scared about something, or feeling nervous or anxious about something.
5. **Exhausted, fatigued**-times recently when you found yourself struggling to be productive either professionally or personally because you were fatigued or especially tired.
6. **Confused**-reflect on a time when you had difficulty understanding or felt that you couldn't quite keep up with what was happening around you
7. **Healthy-**If you bring to mind times in your leadership when you felt especially healthy, when you may have felt personally confident about your ability to take care of yourself, or when others noticed positive health habits in your life, what shows up?
8. **Imbalance**-try to bring to mind a time when you felt that your job was competing with your personal life, when you felt that you had to either choose work or home, or when you struggled to be successful in both areas of your life.
9. **Stressed-**reflect on a time when you felt especially overwhelmed or stressed-a time when you could physically and emotionally feel yourself being stretched by the circumstances you found yourself in.
10. **Change**-As you look back on your recent past as a leader, if you think of some ways in which you feel you've changed over the last few years-or even months if that seems more appropriate-are there some ways that come to mind?
11. **Important to me-**If I were just to ask you, "what is it that is most important to you as a leader" or "what do you care most deeply about" or "what matters most in your leadership work?"-are there one or two things that come to mind?

12. **Dreaming-**For this card, I want to ask you to dream about your job in an ideal world. What are changes you would make to your job or expectations that would improve you as a professional and as a person?

Discuss Experiences

1. For the next 45 minutes, we will discuss some of the experiences that you have recorded.
2. The purpose of the prompts was to fill you up with your own recent experiences of doing this very difficult work of leading in the complex educational world.
3. You all as a group can decide where we start and we may or may not make it through all the cards.
4. Is there an emotion that anyone would like to start with, perhaps one you feel more strongly about or that really resonated with you?

Possible Questions for Further Clarity

How did this experience shape you as a leader? As a person?
What was going on in your life when you experienced this?
How did this experience impact you at home or in relationships that you value?
When you feel this way, how do you typically respond?
Why do you choose this response?
How would your life change if you did the opposite of what you're describing?
When you find yourself feeling a certain way, what else is happening in your life?
How does this align with your personal values or beliefs?

Self-care and your role as educational leader

1. For the final 30 minutes of our discussion, we will talk about self-care with regards to the discussions we have had already.
2. Do you believe that the level to which someone takes care of themselves has an impact on their ability to be happy or to enjoy life? Why or Why not?
3. Have you experienced this personally?
4. Do you believe it impacts how we perform in our jobs? Why or why not?
5. Have you experienced this personally?
6. Are there aspects of being a building administrator that challenge the ability to take care of yourself? What are they? How do you deal with them?
7. Who has the ability to change these specific aspects of the job?
8. What keeps you practicing healthy habits? What keeps you from practicing them?
9. Do you believe that it is worth adjusting your priorities to practice healthier habits? If yes, what would you prioritize? What else would have to change to allow this shift of priorities? Who else would have to buy in to this change with you?

Closing

I see that we are approaching the end of our time. Is there anything more that you would like to discuss?

Appendix E: Official IRB Approval

UNIVERSITY OF ARKANSAS

To:	John C Pijanowski PEAH 104
From:	Douglas James Adams, Chair IRB Committee
Date:	06/04/2018
Action:	**Expedited Approval**
Action Date:	06/04/2018
Protocol #:	1802104770
Study Title:	Crumbling Foundations: The Personal Care Habits of Educational Administrators and How They Could Be Limiting Their Professional Effectiveness
Expiration Date:	03/19/2019
Last Approval Date:	

The above-referenced protocol has been approved following expedited review by the IRB Committee that oversees research with human subjects.

If the research involves collaboration with another institution then the research cannot commence until the Committee receives written notification of approval from the collaborating institution's IRB.

It is the Principal Investigator's responsibility to obtain review and continued approval before the expiration date.

Protocols are approved for a maximum period of one year. You may not continue any research activity beyond the expiration date without Committee approval. Please submit continuation requests early enough to allow sufficient time for review. Failure to receive approval for continuation before the expiration date will result in the automatic suspension of the approval of this protocol. Information collected following suspension is unapproved research and cannot be reported or published as research data. If you do not wish continued approval, please notify the Committee of the study closure.

Adverse Events: Any serious or unexpected adverse event must be reported to the IRB Committee within 48 hours. All other adverse events should be reported within 10 working days.

Amendments: If you wish to change any aspect of this study, such as the procedures, the consent forms, study personnel, or number of participants, please submit an amendment to the IRB. All changes must be approved by the IRB Committee before they can be initiated.

You must maintain a research file for at least 3 years after completion of the study. This file should include all correspondence with the IRB Committee, original signed consent forms, and study data.

cc: Joshua Brent Ray, Investigator