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Perceived principal servant leadership and teacher stress

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Perceived Principal Servant Leadership and Teacher Stress

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A dissertation submitted to the Graduate Faculty of

JAMES MADISON UNIVERSITY

In

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Abstract

Stress is one of the major factors in teacher attrition, a continuing problem in education. Further contributing to teacher stress are state and federal accountability measures, which put added pressure on schools and teachers to increase student performance. School leaders must navigate not only how to keep pace with these accountability practices, but how to do so in a manner that does not increase the stress on their teachers. To seek answers in how this might be accomplished, this paper investigates the relationship between perceived principal servant leadership characteristics and occupational stress in teachers. Data was collected using the Wilson Stress Profile for teachers (Luh, Olejnik, Greenwood, & Parkay, 1991) and a servant leadership scale adapted from leadership research in the business literature (Ehrhart, 2004) from elementary teachers in schools in Virginia not meeting state accountability benchmarks. Findings demonstrate that having higher levels of perceived servant leadership was associated with lower levels of reported stress after controlling for several demographic and behavioral covariates. These results indicate that developing servant leadership characteristics in principals could be a means to alleviate some of the occupational stress teachers feel, particularly in schools that are struggling to meet accountability benchmarks.

Introduction

Background

Teacher attrition is a growing problem in the United States that costs school divisions over \$2 billion a year (“Teacher Attrition Costs”, 2014). Accountability practices are increasing teacher stress, stifling classroom autonomy, and driving many teachers out of the field of education. High poverty schools and those that are not meeting state and federal accreditation benchmarks are among the leaders in teacher attrition and shortages. Schools and students that need the most help are left with the least experienced teachers.

Teacher stress is a major factor in teacher attrition and turnover (McCarthy, Lambert, Lineback, Fitchett, & Baddouh, 2016). While choosing to leave the teaching profession is an individual choice, many factors in the school context including relationships with students and parents, collegial support, and administrative support can contribute to teachers’ stress and increase their motivation to leave the profession (Struyven & Vanthournout, 2014). Tickle, Chang, and Kim (2011), claim that job dissatisfaction in education leads to increased teacher stress and intent to leave. Furthermore, they found that administrative support was the most significant predictor of teachers’ job satisfaction, indicating that administrators that are perceived to support their teachers can reduce teachers’ job dissatisfaction and stress (Tickle, Chang, & Kim, 2011).

Accountability reform and test-based accountability practices are also increasing the problem of teacher stress and turnover. When test-based accountability practices are used for teacher evaluations, teachers feel higher levels of stress (von der Embse, Schoemann, Kilgus, Wicoff, & Bowler, 2017). School performance on standardized assessments affects teacher turnover and retention. Sanctions applied to low performing

schools worsened their already lower teacher retention rates (Ingersoll, Merrill, & May, 2016). In particular, Ingersoll, Merrill, and May (2016) found that four working conditions mattered greatly to teacher retention: 1) the quality of school leadership, 2) the amount of classroom resources and support provided to teachers, 3) the level of school-wide faculty influence over decision making, and 4) the degree of autonomy teachers have in their classrooms. Many of these findings and claims implicate the importance of school leadership as building principals and other school leaders can greatly influence the in-school contextual factors.

School leaders can have a great effect on how teachers respond to the pressure of state and federal accountability practices. If certain leadership qualities or characteristics can be shown to alleviate some of the stress on teachers in schools not meeting state and federal accountability benchmarks, then it may illuminate a path to reduce teacher attrition in these critical areas. Servant leadership, with its emphasis on the leader developing and empowering followers, may provide that insight (van Dierendonck, 2011 & Hunter, et al., 2013).

Purpose of the Study

The purpose of this study is to investigate the relationship between perceived principal servant leadership characteristics and qualities to teacher stress in schools not meeting state and federal accountability benchmarks. This study is designed to be exploratory in nature and seeks to lay groundwork for future investigations into the effects of servant leadership in schools. This research also seeks to explore the association between certain demographic and behavioral characteristics with occupational stress in teachers, particularly those in schools not meeting state and federal accountability benchmarks.

For the purpose of this study, servant leadership will be defined as a leader who forms relationships with subordinates, empowers subordinates, helps subordinates grow and succeed, behaves ethically, has conceptual skills, puts subordinates first, and creates value for those outside of the organization (Ehrhart, 2004). The outcome of interest, teacher stress, will be defined as the experience by a teacher of negative, unpleasant emotions as a result of some aspect of their work as a teacher (Kyriacou, 2001). The study was conducted in elementary schools in Virginia that are not meeting state and federal accountability benchmarks.

Elementary schools were chosen for this research as a means to control for some of the other factors that contribute to teacher stress. Elementary schools face similar accountability standards as secondary schools, but face the added pressures of preparing students to take standardized tests for the first time. There is little incentive for elementary school students to perform well on standardized tests, as there is little to no impact on individual students not meeting benchmarks. Elementary schools must train students to take these high stakes tests for the first time and create motivation for the students to do well, whereas secondary schools operate under a very different dynamic. Secondary schools have the benefit of working with students that have taken numerous high stakes tests over the years. Students in secondary schools often must pass certain tests in order to meet graduation requirements, providing an incentive for the students to perform well on these tests. While both elementary and secondary schools face pressures from accountability standards, these pressures are different, and this study chose to focus on elementary schools.

Research Questions/Hypotheses

To achieve the purpose this study, two research questions have been proposed.

- (1) How does perceived servant leadership in principals relate to teacher stress in schools not meeting state and federal benchmarks?

It is hypothesized that perceived principal servant leadership characteristics in principals will be associated with lower reported occupational stress in teachers after introducing certain demographic and behavioral controls. Covariate associations with teacher stress will also be explored to investigate which demographic and behavioral characteristics are associated with occupational stress in teachers.

- (2) How do school leaders in schools that are not meeting state and federal benchmarks rate on servant leadership indicators?

There are numerous ways to investigate how school leaders in schools not meeting state and federal benchmarks rate on servant leadership. This research considers this question in terms of average principal salary. Average principal salary takes into consideration numerous factors including resources within the division, emphasis on hiring quality leaders, and ability to compete with other schools for quality leadership candidates. It is hypothesized that schools that have higher average principal salaries will have leaders that rate higher on the servant leadership indicators because those schools have the ability to attract high quality leadership candidates.

The remainder of this study is laid out as follows: Chapter 2 contains a literature review beginning with a review of the literature on occupational stress in teachers and concluding with a review of the literature on servant leadership. Chapter 3 includes the methodology used in the study, including data collection and data management procedures, a review of the measurement instruments and the analysis procedures used in the study. Chapter 4 contains the results of the analyses and chapter 5 contains a

discussion of the findings followed by practical implications of these findings and implications for future research.

Review of the Literature

Occupational stress in teachers.

Teacher attrition and teacher shortages are major problems facing education today. One of the many factors contributing to these problems is teacher stress (Akpchafo, 2014; Kyriacou, 2001; McCarthy, Lambert, Lineback, Fitchett, & Baddouh, 2015; Luh, Olejnik, Greenwood, & Parkay, 1991). Kyriacou (2001) claims that while teaching was thought to be a stressful occupation prior, academics did not begin investigating occupational stress in teachers until the late 1970s and early 1980s. Since this time, research into teacher stress has continued to grow and now there is a vast literature base on teacher stress (Kyriacou, 2001).

Coates and Thoresen (1976) wrote about teacher stress and anxiety as they relate to effective teaching and claim that this is one area has largely been ignored in the literature. From this point, the literature base on teacher occupational stress began to grow. Throughout the 1980s research on teacher occupational stress followed a variety of paths including the measurement of stress in teachers (Fimian, 1984; Fimian, 1987; Moracco et al, 1982; Pelsma et al, 1989), sources of stress in teachers (Litt & Turk, 1985; Mykletun, 1984; Blasé, 1986; Fimian & Santoro, 1983), coping with occupational stress in teaching (Kalker, 1984; Riccio, 1983; O'Brien, 1981), and models of occupational stress in teachers (Tellenback, Brenner, & Lofgren, 1983; Leach, 1984; Worrall & May, 1989; Zabel, Bommer, & King, 1984). Research into these areas continued throughout the 1990s and into the 2000s.

Despite this vast literature base, further inquiry into teacher stress research is still needed. State and federal accountability practices are increasing pressure on schools to improve student test scores and thus increasing that amount of stress teachers are feeling

(von der Embse, Kilgus, Solomon, Bowler, & Curtiss, 2015 & von der Embse, Schoemann, Kilgus, Wicoff, & Bowler, 2017). These increased external pressures create a need to revisit previous research on teacher stress and expand it with new ideas and information to further the understanding of teacher stress in hopes to alleviate some of the problem. It is particularly important that new research in this area add the consideration of leadership as the relationship between leadership and occupational stress in teachers has not been fully explored.

Over the years there have been many models and definitions of teacher stress. Teacher stress has been used to refer to teacher appraisals of pressures and demands placed on the teacher in light of the coping resources available to the teacher (Kyriacou, 2001; McCarthy, Lambert, Lineback, Fitchett, & Baddouh, 2015; von der Embse, Schoemann, Kilgus, Wicoff, & Bowler, 2017). Tellenback, Brenner, Lofgren (1983) proposed a model of teacher stress that poses stress is a relational concept depicting a process of stimuli (stressors) to reactions. Other conceptualizations of stress can be seen in the job demands-resource model, where stress is a function of the nature of the job in contrast with the autonomy, job control and personal resources, and the cognitive appraisal model, where stress is considered a function of an individual's appraisal of the situation being either threatening or non-threatening (von der Embse, Schoemann, Kilgus, Wicoff, & Bowler, 2016). Teacher stress has also been defined operationally in more clinical terms of anxiety and depression (von der Embse, Kilgus, Solomon, Bowler, & Curtiss, 2015).

For this work, teacher stress will be defined as the experience by a teacher of unpleasant, negative emotions, such as anger, anxiety, tension, frustration or depression, resulting from some aspect of their work as a teacher (Kyriacou, 2001). This definition is

in line with the other accepted definitions of teacher stress and has been used in a variety of other recent investigations (Akpochofo, 2014; von der Embse, Schoemann, Kilgus, Wicoff, & Bowler, 2017 & Rosenberg, 2010).

Teacher stress is a complex phenomenon that has many sources and the extent to which each of these sources is a stressor is unique to each individual based on intrapersonal characteristics (Boyle, Borg, Falzon, Baglioni, 1995; Fimian, 1984; Kyriacou, 2001 & Rosenberg, 2010). Manifestations of stress also differ from person to person (Rosenberg, 2010; Luh, Olejnik, Greenwood; & Parkay, 1991). The Wilson Stress Profile for Teachers, which was used in this study, has six scales that measure sources of stress and two scales that measure manifestations of stress. These scales encompass many of the most commonly highlighted sources of teacher stress and their manifestations. Sources of stress included in the scale are: 1) student behavior, 2) employee/administrator relations, 3) teacher/teacher relations, 4) parent/teacher relations, 5) time management, and 6) intrapersonal conflicts. Manifestations included in the scale are: 1) physical symptoms of stress and 2) psychological/emotional symptoms of stress (Luh, Olejnik, Greenwood, & Parkay, 1991).

The next portion of the literature review focuses on the six sources of stress measured by the Wilson Stress Profile for Teachers, followed by a brief review of the literature on the manifestations of stress.

Student Behavior. Student behavior encompasses factors related to teacher stress such as lack of student motivation, difficulty controlling students in class, and students not following directions (Luh, Olejnik, Greenwood, & Parkay, 1991). Kyriacou (2001) cites teaching pupils that lack motivation and maintaining discipline as two of the main sources of teacher stress. Boyle, Borg, Falzon, and Baglioni (1995), using a 20-

item sources of teacher stress inventory which indicated a 5-factor structure of stress accounting for nearly 65% of the variance in teacher stress, found that student misbehavior accounted for 7.7% of the variance in teacher stress. Early work by Fimian (1984) also indicates that student behavior is a source of teacher stress in his work on the Teacher Stress Inventory. Though not stated directly, student behavior is seen in his factors of lack of on-the-job success where student motivation, constant responsibility for others, longer amounts of time directly interacting with students, and poor student-teacher ratios are all factors (Fimian, 1984).

Employee/Administrator relations. The employee/administrator relations scale encompasses factors of teacher stress that include the working relationship between the teacher and the administrator, the demands placed on the teacher by the administrator, and the approval of the teacher by the administrator (Luh, Olejnik, Greenwood, & Parkay, 1991). Many researchers have identified the perceptions of teachers of their relationship with the administrator as a source of stress. Kyriacou (2001) identified administration and management as one of the main sources of stress in teachers. Furthermore, Fimian (1984) also identified lack of administrative support as a source of stress for teachers. Demands placed on teachers by the administrator increase teacher workload, which has been identified as primary source of stress in teachers (Kyriacou, 2001; Fimian, 1984; Boyle, Borg, Falzon, & Baglioni, 1995; Rosenberg, 2010; von der Embse, Kilgus, Solomon, Bowler, & Curtiss, 2015; & McCarthy, Lambert, Lineback, Fichett, & Baddouh, 2015). Finally, the administrator serves as an evaluator of the teacher, which Kyriacou (2001) identifies as a source of stress in teachers.

Teacher/teacher relations. The teacher/teacher scale includes components related to job isolation, acknowledgement from colleagues, disagreements with

colleagues, and collegial support (Luh, Olejnik, Greenwood, & Parkay, 1991). Boyle, Borg, Falzon, and Baglioni (1995), using their 5-factor model of teacher stress, found that poor colleague relations accounted for 6.3% of the variance in stress. School climate, lack of support from colleagues, the feeling of being evaluated by colleagues all have been shown to be sources of stress (Kyriacou, 2001; McCarthy, Lambert, Lineback, Fitchett, & Baddouh, 2015; & Akpochafo, 2014). Bainer and Didham (1994) note that positive collegial relationships are especially important for elementary school teachers because of the isolation elementary school teachers often feel in their classrooms.

Parent/teacher relations. The parent/teacher relations scale encompasses the disinterest of parents and the feeling that parents are evaluating the teacher (Luh, Olejnik, Greenwood, & Parkay, 1991). This constant feeling of being evaluated and the lack of acknowledgement can be a source of stress for many teachers (Kyriacou, 2001). Parents and teachers often have differing views about discipline, academics, and various academic and social problems leading to conflict and causing additional stress on teachers (Prilleltensky, Neff, & Bessell, 2016). Teachers are the mediators between the parents and the school and this causes additional strain on teachers particularly if the parent and community support is poor (Grayson & Alvarez, 2008). Positive relationships between parents and teachers are important to both teaching practices and parent involvement which lead to reducing teacher stress (Fantuzzo, Perlman, Sproul, Minney, Perry, & Li, 2012).

Time management. Time management includes time to complete work, workload, and organization (Luh, Olejnik, Greenwood, & Parkay, 1991). Boyle, Borg, Falzon, and Baglioni (1995), using their 20-item, 5-factor inventory of teacher stress, found that workload was the number one factor accounting for teacher stress and it

accounted for 32.1% of the variance in teacher stress. Many others have identified workload or work overload as a major factor in teacher stress (Fimian, 1984; Kyriacou, 2001; Akpochafo, 2014; Rosenberg, 2010; McCarthy, Lambert, Lineback, Fitchett, & Baddouh, 2015; von der Embse, Schoemann, Kilgus, Wicoff, & Bowler, 2017). Many teachers who feel as though their effectiveness is at risk or declining cited negative pressures, including workload (Day, 2012), which increases the occupational stress those teachers are feeling.

Intrapersonal Conflicts. The intrapersonal conflicts scale includes items that measure role conflict and ambiguity, which have been highlighted as sources of stress for teachers (Kyriacou, 2001; Fimian, 1984; Akpochafo, 2014; & von der Embse, Schoemann, Kilgus, Wicoff, & Bowler, 2017). Role conflict (balancing the quantity of material covered with the quality of the work, balancing teaching with classroom management, etc.) has been linked to burnout and emotional exhaustion (Berryhill, Linney, & Fromewick, 2009). Role conflict and ambiguity are considered hindrance stressors and are positively related to turnover and job dissatisfaction (Avanzi, Fraccaroli, Castelli, Marcionetti, Crescentini, Balducci, & van Dick, 2018).

Manifestations of stress. Psychological/emotional and physical manifestations of stress include feelings of frustration, anger, worry, depression, physical aches and pains, elevated blood pressure, and fatigue (Luh, Olejnik, Greenwood, & Parkay, 1991). These manifestations are included in many of the instruments used to measure teacher stress (Fimian, 1984, Hicks, Bahr, & Fujiwara, 2010; & von der Embse, Kilgus, Solomon, Bowler, & Curtiss, 2015). Including manifestations in teacher occupational stress research is important because stress is highly individualized and different individuals cope with perceived stressors in different manners. How stress manifests

itself in individuals will affect the outcomes of that individuals' stress, whether those outcomes are teaching effectiveness, intent to leave the profession, or work dissatisfaction.

Occupational stress in teachers is a largely individual phenomenon that depends on intrapersonal characteristics that include self-efficacy beliefs, gender, age, qualifications, experience and marital status (Akpochofo, 2014; Qusar, 2011; & Lopez, Green, Carmody-Bubb, & Kodatt, 2011). Importantly, exercise has been shown as an effective way for teachers to cope with stress (Austin, Shah, & Muncer, 2005), implying that teachers who engage in regular exercise perceive less occupational stress than those who do not. In more general studies of stress and well-being, there is evidence that leisure time and activities can be effective in coping with stress (Iwasaki & Schneider, 2010), while longer commute times can increase stress and the symptoms of stress including somatic complaints, illness, and days missed (Novaco & Gonzalez, 2009).

While intrapersonal characteristics are crucial to consider when investigating teacher stress, external factors, particularly principal leadership, have been shown to have an effect on teacher stress. In a study in Pakistan, Tasheen (2010) found that there is a significant relationship between principal's leadership style and teacher stress. Specifically, she found a positive relationship between autocratic leadership styles and stressors, and a negative relationship between democratic leadership styles and stressors.

Leadership was found to be the most important variable in predicting teacher stress in a study conducted in Texas (Lopez, Green, Carmody-Bubb, & Kodatt, 2011). They found that the more considerate the leader was, the less emotionally exhausted and depersonalized the follower felt and conversely, the more production-oriented the leader was, the more emotionally exhausted the follower was (Lopez, Green, Carmody-Bubb, &

Kodatt, 2011). Stickle and Scott (2016) agree with these findings and claim that leaders must be “mindful of personality types and behaviors can aid leaders in determining the appropriate and most effective leadership style, thus potentially reducing leader-imposed stress.” They claim leaders must demonstrate they care about their employees (Stickle & Scott, 2016). The ability of a leader to motivate teachers has also been shown to decrease teacher stress (Davis & Wilson, 2010) further indicating that while stress is very dependent on intrapersonal characteristics, school leaders can have an impact on how much stress their teachers feel.

Theoretical Framework.

While it is evident in the literature that leaders and leadership affect teacher stress, this relationship has not been fully explored. The servant leadership framework may lend insight into leader characteristics that help to alleviate some of the stress felt by teachers.

The term *servant leadership* was first used by Robert Greenleaf in his work “The Servant as Leader”, which was first published in 1970. Greenleaf wrote: “The Servant-Leader is servant first. It begins with the natural feeling that one wants to serve, to serve first. Then conscious choice brings one to aspire to lead. The best test, and difficult to administer is this: Do those served grow as persons? Do they, while being served, become healthier, wiser, freer, more autonomous, and more likely themselves to become servants? And, what is the effect on the least privileged in society? Will they benefit, or at least not further be harmed” (Greenleaf, 1991). With those words, servant leadership was born.

Greenleaf originally introduced servant leadership in 1970, but his work did not define or validate his theory of servant leadership (van Dierendonck, 2011). The servant leader was simply thought of as a servant first, and a leader second. Since this time,

many characteristics and definitions have been used in conjunction with servant leadership. Ehrhart (2004) identified seven major categories of servant leadership: 1) forming relationships with subordinates, 2) empowering subordinates, 3) helping subordinates grow and succeed, 4) behaving ethically, 5) having conceptual skills, 6) putting subordinates first, and 7) creating value for those outside of the organization. Servant leadership shares many characteristics of other theories of leadership such as transformational leadership, charismatic leadership, authentic leadership and ethical leadership, but has been shown to be distinct from these other leadership theories (van Dierendonck, 2011 & Ehrhart, 2004).

Servant leadership has been shown to have many organizational benefits, particularly in terms of organizational climate. In a study conducted in a retail sales organization, servant leadership was positively related to helping behaviors in employees and negatively related to turnover intention and disengagement at both the group and individual level (Hunter, Neubert, Perry, Witt, Penney, & Weinberger, 2013). Similarly, research conducted in other organizational settings found that servant leadership was positively related to employees feeling they were treated fairly, and servant leadership was positively related to helping others and conscientiousness behaviors (Ehrhart, 2004; Walumba, Hartnell, & Oke, 2010). In educational settings, a study in Oman found that elementary teachers reported higher levels of job satisfaction when their principal displayed servant leadership characteristics (Al-Mahdy, Al-Harthi, El-Din, 2016). A study in Turkey yielded similar results as it was found that there was a positive relationship between servant leadership characteristics and behaviors and job satisfaction of teachers (Cerit, 2009). Leaders that put their followers first tend to build strong relationships and those relationships tend to create a better organizational climate.

Summary

Servant leadership characteristics may provide insight into how school leaders can reduce the occupational stress felt by teachers. Principals who are servant leaders support and empower teachers enabling them to better cope with student behavior concerns and to build better relationships with parents. Principals who are servant leaders do not just manage their teachers but build positive relationships with them and encourage positive relationships among them. Servant leadership has been shown to improve conscientiousness and increase helping behaviors in employees (Ehrhart, 2004; Walumba, Hartnell, & Oke, 2010). This creates a climate where teachers do not feel isolated but instead feel supported by one another, thus reducing stress from these relationships. Principals who are servant leaders are mindful of their followers and work with them to maintain a manageable workload. The servant leadership framework may help school leaders understand their role in reducing teacher stress.

Methodology

To explore the effects of perceived principal servant leadership on teacher stress in elementary schools that are not meeting state and federal accountability benchmarks in Virginia, elementary teachers in schools that are not fully accredited were surveyed. A servant leadership questionnaire that was adapted from studies in other organizational settings was combined with an inventory used to assess teacher stress, the Wilson Stress Profile for Teachers. The servant leadership survey assesses the teachers' perceptions of their principal's servant leadership qualities and characteristics. Certain demographic and behavioral characteristics that have been linked to teacher stress were collected as control variables.

Population

According to the school accreditation rankings on the Virginia Department of Education's (VDOE) website, there are 250 schools that were not fully accredited for the 2017-2018 school year (Virginia Department of Education, 2017). Seven of them are new schools and are thus conditionally accredited and one had its accountability status withheld, thus it was not contacted to participate in the study. All middle and high schools that were not fully accredited were removed from the list leaving 138 elementary schools that were not fully accredited. Schools that serve students in kindergarten or pre-kindergarten through fifth grade were considered for the purposes of this study. This limitation was put on the population because schools that meet these criteria face the same accountability standards. The final sampling frame includes teachers from 108 elementary schools in 40 different school districts.

Once these schools were identified, superintendents from the corresponding school districts were contacted and asked for approval for these schools to participate in

the study. If the superintendent granted permission, building principals were contacted and asked for permission to survey their teachers. If the building principal granted permission, an online survey was distributed to the teachers in that building. The sample included any teachers that filled out the survey. Surveys were filled out confidentially and teacher responses were not shared with building principals or superintendents.

Data Collection Procedures

Data was collected through an online survey using Qualtrics from February 15th through June 15th, 2018. The surveys were distributed at the discretion of the building principals or central office representative in charge of data collection within the school division. In some cases, a list of emails for the teachers in a building was provided so that the researcher could distribute the survey directly through Qualtrics. In other cases, the survey was distributed either by the building principal or central office personnel through a school listserv. Reminders were sent throughout the data collection process to encourage completion of the survey. The number and frequency of the reminders sent was based on when during the data collection process the data collection was approved for a specific school. Schools that approved data collection prior to March 1st received 2 reminders, one on March 10th and one on April 15th. Schools that approved data collection after March 1st but prior to March 27th received one reminder on April 15th. Schools that approved data collection from March 27th through the end of April received one reminder on April 27th. One school approved data collection in May and was not sent any reminders. Reminders were sent in this manner at the request of the schools and school divisions. As they were nearing the end of year and engulfed in end-of-year testing, school leadership did not want to distract teachers from their end-of-year responsibilities.

Data Management

Once the data was collected, it was screened for valid responses and accuracy in order to ensure the correlations were not distorted (Tabachnick & Fidell, 2001). First, the data file was inspected for valid responses, ensuring that all responses fell within the proper range. Univariate descriptive statistics were examined to determine the accuracy of the responses and the data set was proofread to further examine the data set's accuracy (Tabachnick & Fidell, 2001). Any data that fell out of range or is invalid was treated as missing data.

Out of range, invalid, or missing data was minimal. Initially, 64 (16.7%) of the surveys were removed because they respondents completed less than 80% of the survey. From the remaining cases, 0.4% of the data was missing. Demographic and behavioral variables were missing data from between one and eight cases. No item from the servant leadership scale was missing more than two responses and overall only 0.2% of the data from the servant leadership scale was missing. Similarly, no more than three responses were missing from any of items in the teacher stress scale. Overall, only 0.3% of the data was missing from the teacher stress scale. Missing data on the servant leadership and teacher stress indicators were imputed using mean imputation in SPSS. Mean imputation replaces the missing values with the mean for the non-missing cases for that survey item. Since there were so few missing cases in the servant leadership survey and the teacher stress survey, using this method should not impact the results. Missing demographic or behavioral data was treated as a separate category or included in a category encompassing the minority of the responses to the item.

Sample

Once permissions were obtained, surveys were distributed to 923 licensed

instructional personnel (teachers, school counselors, librarians, instructional specialists) in 26 elementary schools across Virginia. Participation in the survey was voluntary and resulted in 384 responses, a 41.6% response rate. The final participation group consisted of 320 total participants that completed more than 80% of the survey. Respondent ages ranged from 22 years to 67 years, with a mean of 41.17 years and a median of 41 years while teaching experience ranged from 1 year to 43 years with a mean of 13.24 years and a median of 11 years. Additional demographic characteristics can be found in Table 1.

Table 1

Participant Demographic Information

Demographic Characteristic	<i>n</i>	%
Gender		
Male	15	4.7%
Female	300	93.8%
Not Answered	5	1.6%*
Ethnicity		
White	263	82.2%
Black or African American	34	10.6%
Hispanic or Latino	4	1.3%
Native American or American Indian	3	0.9%
Asian/Pacific Islander	1	0.3%
Other	3	0.9%
Not Answered	12	3.8%*
Position		
Classroom Teacher	208	65.0%
Other Teacher	48	15.0%
Instructional Specialist	41	12.8%
Librarian	9	2.8%
School Counselor	4	1.3%
Not Answered	10	3.1%*

*Missing responses were added to the responses marked as prefer not to answer.

Measurement Instruments

The survey consisted of three parts: a 14-item servant leadership survey, an inventory of teacher stress, and demographic and control variables. All responses were anonymous, and any identifying data was removed from the surveys. See Appendix A for the complete survey instrument.

Independent variable. The servant leadership scale used in this study was

adapted from a scale used by Ehrhart (2004). The survey used by Ehrhart (2004) has been used in multiple other studies on servant leadership (Walumbwa, Hartnell, & Oke, 2010; Hunter, Neubert, Perry, Witt, Penney, & Weinberger, 2013). The scale had been previously used in business organizations and was adapted to make it more relevant to educational organizations as follows: 'department manager' was replaced with 'principal' and 'department employee' was replaced with 'teacher'. The complete list of adaptations can be found in Appendix B.

This survey measures the seven major categories of servant leadership behavior: forming relationships with subordinates, empowering subordinates, helping subordinates grow and succeed, behaving ethically, having conceptual skills, putting subordinates first, and creating value for those outside of the organization. The survey contains 14 items, two for each of the seven categories of servant leadership. Each item was rated on a 5-point scale from 1 = to a very small extent to 5 = to a great extent. It was designed for teachers to rate their perceptions of their principal.

The survey demonstrated construct validity among a sample of 254 employed university students (Ehrhart, 2004). Using confirmatory factor analysis, Ehrhart (2004) demonstrated that this survey, a survey measuring transformational leadership and a survey measuring leader-member exchange (LMX) loaded onto three factors and the three-factor solution was better than any alternative two factor model that combine the servant leadership scale with one of the other two. These results provided evidence of construct validity that servant leadership is distinct from LMX and transformational leadership. The original scale also showed internal reliability with a Cronbach's α of 0.98 (Ehrhart, 2004).

Since the servant leadership scale being used was adapted, it was necessary to

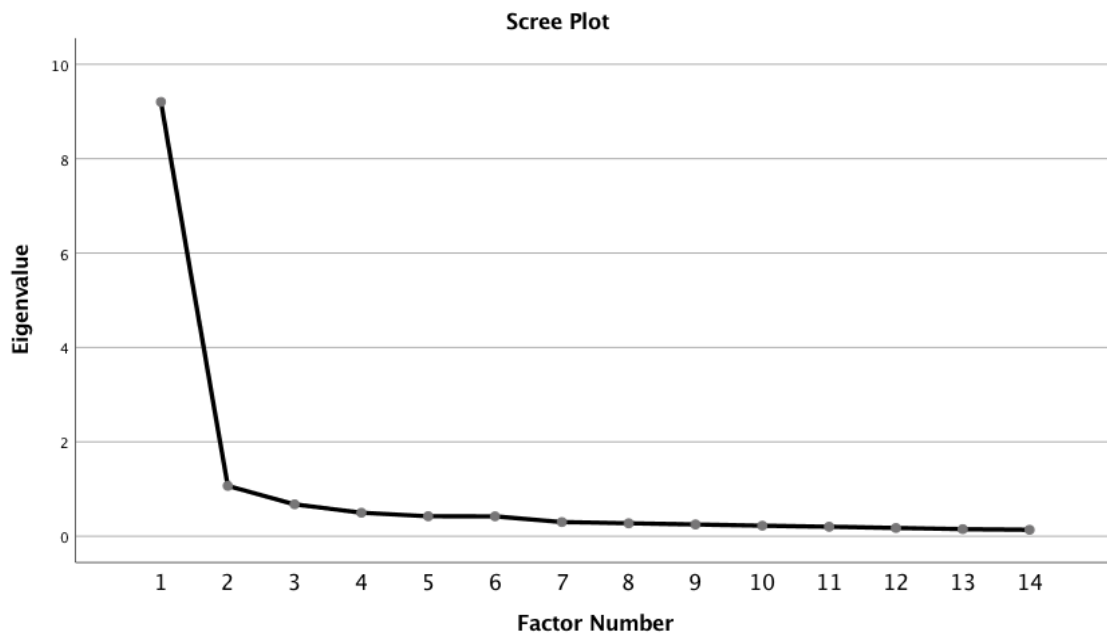
evaluate claims about construct validity and reliability made by Ehrhart (2004) held for the adapted survey. Cronbach's α was used to check for internal consistency for the entire scale. Finally, an exploratory factor analysis (EFA) was run to test the theory that these items accurately portrayed the servant leadership of principals as perceived by teachers. The choice to use EFA instead of confirmatory factor analysis (CFA) was made to test dimensionality and factor structure. Based on servant leadership theory and the construction of the original measurement instrument, there could have been as many of seven factors, one for each of the major servant leadership characteristics. It was hypothesized that the 14 items on the survey will load onto one factor, perceived servant leadership, because of the strength of the theory and the applicability to the population. SPSS was used to run all of the statistical analyses.

Factor Structure. Factor analysis techniques require a large sample size and this sample ($n=320$) meets the requirements set forth by Tabachnick and Fidell (2013, Chapter 13) where they claim a sample size of 300 is sufficient. Furthermore, SPSS determined the determinant of the correlation matrix was not 0, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy was 0.95 and using Barlett's Test of Sphericity the null hypothesis that the correlation matrix was the identity matrix was rejected, $\chi^2(91) = 4136.8, p < .001$, thus the conditions are met to use factor analysis (UCLA, 2016).

Scree plot analysis supported the hypothesis that one factor would be extracted. See Figure 1 for the scree plot. The initial eigenvalue for the first factor is 9.2, with a steep drop to the second factor, which has an eigenvalue of 1.1. Even though the eigenvalue of the second factor is greater than 1, the one-factor solution was retained due to the minimal additional information added by the second factor. The one-factor solution accounts for 65.7% of the total variance, and 63.6% of the common variance.

Factor loadings range from .646 to .901 for each item can be found in Table 2.

Figure 1. Scree Plot of Factor Analysis of the Servant Leadership Inventory



Internal Consistency. To evaluate the internal consistency of the measurement instrument, Cronbach's α was calculated to be 0.96, which is high and very close to the α reported by Ehrhart (2004) in his initial evaluation of the instrument ($\alpha=0.98$).

Scale Use. The results support the hypothesis that the adapted measurement instrument maintains construct validity with all items loading onto one factor: servant leadership. Furthermore, the adapted measurement instrument maintained high internal consistency.

Previous work using this scale has been unclear on precisely how the scale was scored, but in one, pairs of items were combined to get one score for each dimension prior to running the factor analyses (Ehrhart, 2004) and in others, each item was used in the factor analyses (Hunter, Neubert, Perry, Witt, Penney, & Weinberger, 2012; Walumbwa, Hartnell, & Oke, 2010). For this study, the weighted sum method of scoring the questionnaire was used, as it accounts for the factor loadings (DiStefano, Zhu, &

Mindrila, 2009). Since the scale was adapted to be used in an educational setting, this method is more likely to accurately represent servant leadership.

Table 2

Servant Leadership Scale Factor Loadings

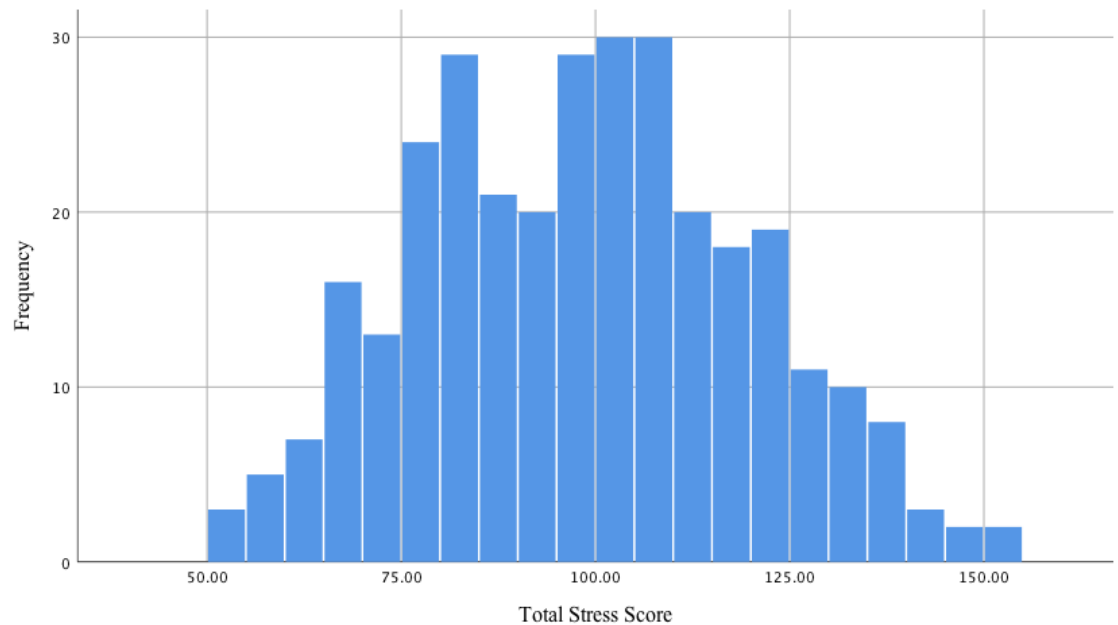
Survey Item	Factor Loadings
My principal works hard at finding ways to help others be the best they can be.	.901
My principal creates a sense of community among teachers.	.867
My principal makes me feel like I work with him/her, not for him/her.	.858
My principal displays wide-ranging knowledge and interests in finding solutions to work problems.	.855
My principal balances concern for day-to-day details with projections for the future.	.842
My principal makes the personal development of teachers a priority.	.836
My principal spends time to form quality relationships with teachers.	.831
My principal's decisions are influenced by teachers' inputs.	.797
My principal tries to reach consensus among teachers on important decisions.	.792
My principal does what she or he promises to do.	.786
My principal is sensitive to teachers' responsibilities outside of the school.	.776
My principal emphasizes the importance of giving back to the community.	.678
My principal encourages teachers to be involved in community service and volunteer activities outside of work.	.669
My principal holds teachers to a high ethical standard.	.646

Dependent variable. The Wilson Stress Profile for Teachers (Luh, Olejnik, Greenwood, & Parkay, 1991) was used to obtain information on occupational stress in teachers. This survey contains 36 items and has 9 different scales. This scale has been shown to have sufficient reliability, Cronbach's Alpha of 0.91 (Luh, Olejnik, Greenwood, & Parkay, 1991). For the purpose of this study, one item was removed (I am now using one or more of the following to relieve my stress: alcohol, drugs, yelling, blaming, withdrawing, eating, smoking.), yielding 35 items. This item was removed because it contains sensitive material that teachers may be apprehensive about providing.

Data from the Wilson Stress Profile for Teachers was checked for normality

graphically (see Figure 2), and by examining univariate statistics. Stress scores ranged from 51 to 154, with a mean of 98.01 and a median of 98. Stress scores had a skewness statistic of 0.14 with a standard error of 0.14 and a kurtosis statistic of -0.50 with a standard error of 0.27. Scatterplots between the servant leadership and occupational stress in teachers were analyzed to ensure a linear relationship.

Figure 2. Total Stress Score Histogram



An occupation stress score was obtained from the Wilson Stress Profile for Teachers by summing the scores on the items to get a total scale score. This follows previous uses of the scale (Rosenberg, 2010; Luh, Olejnik, Greenwood, & Parkway, 1991). This method does not account for the different loadings of each item on the factor, but it may not make a significant difference (DiStefano, Zhu, & Mindrila, 2009) and it follows previous work performed with the scale.

Control variables. In addition to these two instruments, demographic information and control items was collected. These items included: age, gender, ethnicity or race, years of service, years in current school, position in the school, grade level

taught, subject(s) taught, educational attainment, average commute time, amount of leisure time, and number of times they exercise per week. The 2018 budgeted average principal salary was also collected for each school district participating in the research through the VDOE website. This information was used as an organizational level covariate in the regression models and was used to further explore research question two.

Conditioning. Both the dependent and independent variables were standardized prior to running the analyses. This allowed the interpretation of beta to be an effect size.

For the purpose of this study, participant ages were put into five categories: under 30 years old = 1 ($n=72$), 30-39 years old = 2 ($n=79$), 40-49 years old = 3 ($n=70$), over 50 years old = 4 ($n=91$) and age not provided = 0 ($n=8$). These categories were approximately the same size and allowed the data to be interpretable.

Since over 90% of the population was female, gender was categorized into two categories: Female = 0 ($n=300$), and Male or No Response Given = 1 ($n=20$). This categorization was appropriate because of the difference in size of the groups. The researcher posited if the participant intentionally withheld gender, it is likely that they felt it could be used to identify them, thus they would fall into the minority category.

Similarly, since over 80% of the population identified their ethnicity as 'white', ethnicity was categorized into two categories: White = 0 ($n=263$), and Minority or No Response Given = 1 ($n=57$). As with gender, this categorization was appropriate because of the difference in size of the groups and if the participant intentionally withheld ethnicity, it is likely that they felt it could be used to identify them, thus they would fall into one of the minority categories.

Experience was grouped into six categories: less than 3 years = 1 ($n=60$), 4-7 years = 2 ($n=65$), 8-14 years = 3 ($n=61$), 15-22 years = 4 ($n=65$), 23 or more years = 5

($n=64$), and Response Not Given = 0 ($n=5$). These categories were approximately the same size and allowed the data to be interpretable.

Position was grouped into two categories: Classroom Teacher = 1 ($n=208$), and Other Licensed Instructional Personnel or No Response Given = 0 ($n=112$). Other Licensed Instructional Personnel included art, music, P.E., special education, and technology teachers, as well as librarians, instructional specialists, and school counselors. Elementary classroom teachers have different demands on them and are often times more isolated than the other licensed instructional personnel in the school, this categorization allows the researcher to further investigate research question three.

Educational attainment was categorized into five categories: teachers with a bachelor's degree = 1 ($n=148$), teachers with a master's degree = 2 ($n=155$), teachers with a specialist degree = 3 ($n=7$), teachers with a doctoral degree = 4 ($n=4$), and response not given = 0 ($n=6$).

Leisure time was categorized into five categories: less than one hour per weekday or no response = 0 ($n=86$), 1 hour per weekday = 1 ($n=106$), 2 hours per weekday = 2 ($n=59$), 3 or more hours per weekday = 3 ($n=69$). Only one case had no response for this survey item, thus it was grouped with those that had less than one hour per weekday.

Commute time was categorized into five categories: less than 10 minutes per day = 1 ($n=38$), 10-19 minutes per day = 2 ($n=103$), 20-44 minutes per day = 3 ($n=124$), 45 or more minutes per day = 4 ($n=50$), and no response = 0 ($n=5$).

Number of times a teacher exercises per week was categorized into three categories: 0-1 time or no response = 0 ($n=153$), 2-3 times = 1 ($n=113$), and 4 or more times = 2 ($n=54$). Only two responses were missing from this survey item, thus they were grouped with those that exercised 0 or 1 time per week.

Average budget principal salary was categorized into three categories: less than \$85,000 per year = 1 ($n=77$), \$85,000 - \$90,000 per year = 2 ($n=138$), and more than \$90,000 per year = 3 ($n=105$). These categories provide some basis for a low, middle, and high range to assist in answering research questions two.

Table 3

Descriptive Statistics

	<i>M</i>	<i>SD</i>
Dependent Variable		
Total Stress Score	98.01	21.00
Independent Variable		
Servant Leadership Score	37.35	11.51
Non-Demographic		
Experience (years)	14.68	14.67
Commute (minutes)	25.81	22.78
2018 Budgeted Principal Average Salary (US Dollars)	\$91,527.42	\$14,208.86
Age (years)	40.14	13.53

Data for three control variables was collected, but not used in the analysis. ‘*Years working in their current school*’ was not used because it was highly correlated with experience ($r=.791$, $p<.001$), it was not thought to add significantly to the model. ‘*Grade level taught*’ and ‘*subject(s) taught*’ were also not used in the final analysis because these questions were only applicable to classroom teachers, not the other licensed personnel in the school.

Analyses

To test the effects of perceived servant leadership on teacher stress, multiple regression was used. Multiple regression was selected because the research question is a question of association (Morgan, Gliner, & Harmon, 2006). The regression model was run using hierarchical multiple regression, with the control variables entered first and servant leadership entered second. This enables the researcher to determine how much

more variance in teacher stress can be explained by adding servant leadership to the model (Morgan, Gliner, & Harmon, 2006). Due to the nested nature of the data there is a chance of heteroscedasticity. To account for this, robust standard errors were used when running the multiple regression. This was accomplished using a procedure described by Hayes and Cai (2007) that produces heteroscedasticity consistent standard error estimators.

To test how school leaders rate on servant leadership in schools not meeting state and federal benchmarks, one-way ANOVA was used to compare the means of the servant leadership scores across the low, middle and high range for budgeted principal salary for the school district. The covariates in the first regression model were also analyzed to determine the association between the demographic and behavioral characteristics of teachers and their perceived occupational stress.

Limitations

As with all studies, this study has its limitations. First, this study was conducted in a small subset of schools in a single state. While the response rate was 41.6%, it only included teachers 26 schools when 108 schools were invited to participate. Collecting survey data from schools is difficult. Many school districts have their own internal review boards requiring additional paperwork, approvals, and time constraints, which makes distributing surveys and collecting data difficult. Additionally, all of the data collected for this study was self-reported, which could have caused the responses to be biased.

Results

The total stress scores for teachers had a mean of 98.01, with a standard deviation of 21.00, while the perceived servant leadership scores had a mean of 37.35, with a standard deviation of 11.51. Table 4 shows the correlation matrix for the variables along with the significance of the correlations. It is worth noting that three of the variables were not significantly correlated with total stress, gender ($r=.025, p=.327$), level of education ($r=-.049, p=.190$), and commute time ($r=.049, p=.191$) and thus will not likely be significant contributors to the multiple regression. Correlations of the independent variables with the dependent variable (total stress) ranged from $-.374$ (servant leadership score) to $.165$ (position). While there was significant correlation among independent variables, only age and experience had an extremely high correlation ($r=.760, p<.001$), but that was expected because of the relationship between the variables. A correlation of $.760$ is within the acceptable limits for avoiding multicollinearity.

To test hypothesis one, hierarchical multiple regression was run, with model one including the demographic and behavioral characteristics along with the organizational variable principal average salary as predictors of teacher occupational stress. Model two added servant leadership score to the model as a predictor of teacher occupational stress. The model summaries are shown in Table 5 and the unstandardized regression coefficients are shown in Table 6. The results indicated that intrapersonal and demographic characteristics were sufficiently related to perceived occupational stress in teachers [$R^2=.194, F(10,309)=8.032, p<.001$], indicating that behavioral and demographic characteristics accounts for 19.4% of the variance in perceived occupational stress in teachers.

Correlations and Significance

[illegible]

Table 5
Model Summary^c

Model	<i>R</i>	<i>R</i> ²	Change Statistics				
			<i>R</i> ²	<i>F</i>	<i>df</i> 1	<i>df</i> 2	<i>Sig. F</i>
		<i>Change</i>	<i>Change</i>	<i>Change</i>	<i>Change</i>	<i>Change</i>	<i>Change</i>
1	.440 ^a	.194	.194	8.032	10	309	.000
2	.555 ^b	.308	.114	8.226	1	308	.000

a. Predictors: (Constant), Exercise Time, Experience, Commute Time, Ethnicity, Degree, Gender, Leisure Time, Position, Age, Principal Average Salary

b. Predictors: (Constant), Exercise Time, Experience, Commute Time, Ethnicity, Degree, Gender, Leisure Time, Position, Age, Principal Average Salary, Total Servant leadership Score

c. Dependent Variable: Total Stress Score

Table 6
Regression Coefficients for Model 1 and Model 2^a

Model		Unstandardized <i>b</i>	Robust <i>SE</i>	<i>t</i>	<i>Sig.</i>
1	Age	-.053	.076	-.675	.500
	Gender	.188	.225	.836	.404
	Ethnicity ^b	-.432	.162	-2.672	.008
	Experience	-.056	.064	.871	.384
	Position	.171	.120	1.422	.156
	Leisure Time	-.175	.051	-3.397	.001
	Commute Time	.029	.054	.546	.588
	Principal Avg. Salary	.139	.077	1.812	.071
	Exercise Time	-.312	.069	-4.539	.000
	Degree	-.021	.082	-.260	.795
2	Age	-.036	.071	-.507	.616
	Gender	.057	.217	.262	.793
	Ethnicity ^b	-.393	.151	-2.594	.010
	Experience	-.044	.058	-.763	.446
	Position	.170	.116	1.464	.144
	Leisure Time	-.167	.047	-3.531	.001
	Commute Time	.058	.052	1.100	.272
	Principal Avg. Salary	.152	.073	2.076	.038
	Exercise Time	-.288	.063	-4.585	.000
	Degree	.018	.078	.225	.822
	Servant Leadership Score	-.345	.053	-6.481	.000

a. Dependent Variable: Total Stress Score *Note.* Boldface indicates significance < .05

In this model, only ethnicity, leisure time, and exercise were found to account for significant variance in perceived occupational stress in teachers above and beyond the other variables ($b=-.432, p=.008$; $b=-.175, p=.001$; $b=-.312, p<.001$ respectively). More specifically, individuals that identified themselves as white indicated they felt higher levels of stress than those that identified as a minority group; individuals that indicated they had more leisure time indicated they had less stress; and greater reported exercise was associated with lower perceived occupational stress. Contrary to previous studies, the other behavioral and demographic characteristics were not significant in the model. Even though age ($r=-.186$), experience ($r=-.172$), and position ($r=.165$) were significantly correlated with teacher occupational stress, these correlations were weak and they were also significantly correlated to other predictor variables, reducing their unique contribution to the regression model. These results assist in answering research question one, indicating that some, but not all, of the behavioral and demographic covariates are associated with perceived occupational stress in teachers.

When perceived servant leadership scores were added as a predictor to the regression model, results indicated this model was also sufficiently related to perceived occupational stress in teachers [$R^2=.308, F(11,308)=16.258, p<.001$], indicating that adding perceived servant leadership characteristics in principals to behavioral and demographic characteristics accounts for 30.8% of the variance in perceived occupational stress in teachers. Adding perceived servant leadership in principals as an indicator of occupational stress in teachers did produce a better model than the model only using behavioral and demographic characteristics ($R^2_{change}=.114, F_{change}=8.226, p<.001$), indicating perceived servant leadership characteristics account for 11.4% of the variance in perceived occupational stress in teachers above and beyond behavioral and

demographic characteristics. This is in support of hypothesis one. Further support of hypothesis one can be seen in examination of the regression coefficient for servant leadership score ($b = -.345, p < .001$). As perceived servant leadership in principals increases perceived occupational stress in teachers decreases. Specifically, for a one standard deviation increase in perceived principal servant leadership score, perceived teacher occupational stress will decrease by .345 standard deviations. The result indicates that perceived servant leadership in principals has a moderate effect size on perceived occupational stress in teachers.

To test hypothesis two, one-way ANOVA was used to determine if there was a difference in mean perceived servant leadership score in principals based on average principal salary for their school division. Categories for average principal salary were broken down into three categories: low (<\$85,000 per year), middle (\$85,000-\$90,000 per year) and high (>\$90,000 per year). The results from the ANOVA can be seen in Table 7 and the results for the post hoc analysis can be seen in Table 8.

Table 7

ANOVA for Perceived Servant Leadership Score

	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>Sig.</i>
Between Groups	978.798	2	489.399	3.757	0.24
Within Groups	41291.285	317	130.256		
Total	42270.083	319			

Table 8

Sheffe Post Hoc Analysis

Budgeted Average Salary	Budgeted Average Salary	<i>Mean Difference</i>	<i>SE</i>	<i>Sig.</i>
Less than \$85,000/year	\$85,000 - \$90,000/year	-4.344	1.623	.029*
Less than \$85,000/year	Greater than \$90,000/year	-1.978	1.712	.514
\$85,000 - \$90,000/year	Greater than \$90,000/year	2.366	1.478	.279

* indicates significance < .05

Results indicated that there were significant differences in mean perceived principal servant leadership characteristics ($F(2, 317) = 3.757, p = .024$). Sheffe post hoc indicated a

significant difference between perceived servant leadership in principals between the low salary group and the middle salary group, with the middle salary group having higher perceived servant leadership than the low salary group, indicating partial support for hypothesis two. Sheffe post hoc did not indicate a significant difference in perceived servant leadership in principals between the middle salary group and the high salary group nor did Sheffe post hoc analysis indicate a significant difference in perceived servant leadership in principals between the low salary group and the high salary group. While this does not provide support for hypothesis two, it does align with the results of model two where principal average salary is a significant predictor of perceived occupational stress in teachers ($b=.152, p=.038$) indicating that higher principal average salary is associated with higher perceived occupational stress in teachers. These results indicate that the amount of financial resources a school division has does not impact its ability to find and hire principals with servant leader characteristics.

In sum, these findings indicate that servant leadership characteristics accounted for the greatest proportion of variance in teacher occupational stress above and beyond the control variables. Teachers that perceived higher levels of servant leader characteristics in their principals perceived less occupational stress. This result is in support of hypothesis one. Ethnicity, leisure time, and exercise time also accounted for significant variance in teacher occupational stress. Hypothesis two found little support as there was only minimal evidence that school divisions with more financial resources employed principals with higher levels of servant leader characteristics.

Discussion

This research spanned leadership theory to measurements that explore leadership theory and the effects of putting that leadership theory into practice. Educators are public servants that seek not fortune or fame, but to serve others and their communities and help foster the physical, emotional, social and academic growth in others. For this reason the servant leadership framework is so important to education. Educators are servants first, which is the underlying philosophy of servant leadership.

Main Findings

Results indicated support for hypothesis one. Perceived servant leadership in principals was the most significant predictor of perceived occupational stress in teachers in schools not meeting state and federal accountability benchmarks. It accounted for 11.4% of the variance in perceived occupational stress in teachers, with higher levels of perceived servant leadership in principals indicating lower levels of perceived occupational stress in teachers. This result is due, in large part, to the characteristics that make a servant leader. Servant leaders foster relationships and a sense of community in an organization, resulting in less isolation, which reduces stress in teachers. They seek input from others in decision-making, creating buy-in from subordinates, which in teachers increases how they feel valued. They prioritize the development of subordinates, which better equips teachers to deal with the stressors faced on a daily basis. They seek to display a high moral and ethical standard, leading by example and reducing role ambiguity in teachers. They seek balance in finding solutions to problems, both in day to day operations and in projections for the future, which helps teachers not to suffer from work overload. Overall, servant leaders value their employees as individuals, ensuring that they are equipped to deal with pressures exerted by their work life.

In consideration of the demographic covariates that have been previously shown to be associated with occupational stress in teachers, only ethnicity was found to have a significant association. Teachers that identified as white perceived more occupational stress than those that identified as a minority group. This result is important for principals to keep in mind. Principals must be aware of the demographic make-up of their staff and cognizant of the individual characteristics that may be related to higher levels of stress. This awareness could help principals better equip their teachers to deal with the stressors they encounter on a daily basis. This finding highlights intercultural differences in teachers and serves as a reminder that conversations connected to diversity and cultural differences should be threaded throughout professional development initiatives. Fostering a culturally aware school that embraces diversity can help teachers have a better understanding of their colleagues and students, allowing everyone to feel welcomed and valued. Continued conversations focusing on cultural awareness among staff members can unite teachers and improve the overall culture in an organization resulting in a reduction of stress for all teachers.

Other demographic variables were not shown to be strong indicators of teacher occupational stress. This could be due to the fact that many of these variables were correlated with one another and that the population in this study was not extremely diverse. Studies isolating these variables with larger more diverse samples may yield different results.

Behavior covariates in the study yielded slightly more promising results. Of note were the results that leisure time and number of times an individual exercised per week were associated with perceived occupational stress of teachers. The results indicated more leisure time each day was associated lower occupational stress in teachers and that

teachers that exercised more often perceived less occupational stress than those that did not. Both of these results can have ramifications for teachers that are feeling too much stress from work. Principals must remember that the well-being of their teachers is important and make sincere efforts to foster a culture where teachers make time for their own self-care and wellbeing.

Hypothesis two was not supported in this study, and upon reflection that is not surprising. Servant leaders are not necessarily going to be drawn to school divisions with more financial resources. Servant leaders are servants first. Servant leaders may not be as interested in higher pay as they are finding a situation in which they can do the most good. Servant leaders may prioritize putting themselves in a situation in which they feel they are best suited to make a difference in the lives of others over finding the highest salary. Since public education is community driven, servant leaders may look to stay in a community they have connected with as a means to give back to the community itself. This study indicates that servant leaders in public education may not be driven by higher salaries.

Implications

The first set of implications from this study stem from the adaptation of the servant leadership scale for use in schools. The adaptation of the servant leadership scale described above opens new doors to investigate servant leadership in public schools. While further analysis of the adapted scale would be beneficial, the initial results are promising. Researchers now have a brief survey that measure teachers' perceptions of principal servant leadership characteristics. Because of its brevity, it can easily be combined with other survey items to allow researchers to investigate the effects of perceived servant leadership in principals on different facets of education. More research

into servant leadership in public education is needed because the framework of servant leadership aligns so well with education. Servant leaders are servants first, much like educators. They seek to help others grow as individuals, much like educators. They seek to add value to the community, much like educators. They seek to act with integrity, much like educators.

Implications for research with this adapted measurement of servant leadership should include confirming that servant leadership is distinct from other forms of leadership, particularly transformational leadership, ethical leadership, and LMX leadership theories as previous research indicates servant leadership is highly related to these other leadership theories. Additional work with this scale could use larger more diverse samples to confirm the factor structure and reliability of the adapted scale. The participants in this study came from a very restricted population, specifically teachers in elementary schools from a single state that were not meeting state and federal accountability benchmarks. Future studies should include teachers from both primary and secondary schools, teachers across different states, and teachers from schools that are meeting state and federal benchmarks. These further analyses would allow more unrestricted use of the scale and could further research into the effects of servant leadership in education.

While this study was exploratory in nature, the results are promising. Perceived servant leadership in principals was shown to have a fairly strong association with perceived occupational stress in teachers. These results hold implications for practice in three very important areas of education: 1) at the school level; 2) at the division level; and 3) in administrator training and development.

At the school level it is important for principals to remember that stress is an

individual phenomenon. Principals must recognize the manifestations of stress in their teachers. These manifestations could come from physical symptoms such as aches, pains, and fatigue. Building leaders should be observant for these physical signs of stress in their teachers. Looking for patterns in absenteeism among staff members, listening to complaints about fatigue or headaches, and observing changes in physical appearance are all good methods a principal can use to identify if individuals are succumbing to stressors in the work place. Principals must also be aware of behavioral manifestations of stress such as frustration, anger, and anxiousness. Principals should note behavioral changes in individuals and monitor those individuals. These changes could be indications of occupational stress. If a principal notices any of these warning signs that a staff member is succumbing to the stressors in the workplace, they must work with the individual to identify the source of the stress and alleviate the problem. Principals should also foster a school culture which is supportive of stress relief through encouraging teachers to take part in leisure activities such as exercise, modeling appropriate balance between work responsibilities, home responsibilities and well-being, and enhancing collaborative efforts in the school so that teachers do not feel isolated in their practice.

Stress in teachers has a variety of sources and the steps a principal can take to alleviate stress for an individual depend on the source of the stress. The first step a principal can take in helping an individual cope with occupational stress is to identify the source of the stress. This research used six sources of stress that were previously identified by researchers (Luh, Olejnik, Greenwood, & Parkay, 1991): 1) student behavior; 2) employee/administrator relations; 3) teacher/teacher relations; 4) parent/teacher relations; 5) time management; and 6) intrapersonal conflicts. To best guide principal servant leadership efforts, each area will be briefly discussed.

Teachers that lack classroom management skills, complain about their students lacking motivation, or complain about their class size may be experiencing stress caused by student behaviors. Following the servant leadership framework, the principal can help these teachers by helping them develop the classroom management skills necessary to run an effective classroom. Specific professional development on classroom management strategies, modeling from other teachers, and student engagement strategies can be used to help these teachers grow into better teachers. Principals can alleviate student behavior concerns with school-wide positive behavior programs and modeling respectful behaviors for everyone. This can help create a positive climate in the school and reduce student behaviors that inhibit teaching. Principals can empower teachers to work with students that are disrupting instruction or appear to lack motivation. Providing teachers with resources, options and support when working with these students can help reduce student behaviors as a source of stress.

Teachers feeling stress caused by employee/administrator relations may feel that there are too many demands being placed on them by the principal, that they have a poor relationship with the principal, or that they are not earning the principal's approval. In this situation, the principal must work to build or rebuild the relationship with the teacher. Principals must know their teachers as individuals, treat them respectfully, and be supportive. While one role of a principal is to evaluate teachers, a servant leader will use this as a means to help teachers grow professionally and to build them up, not tear them down. To help overcome stress caused by employee/administer relations, principals should take time to celebrate accomplishments with teachers, provide support and encouragement when it is needed, and view the evaluation process as a means to help teachers improve. Principals also need to monitor how much they are asking from their

teachers to ensure the demands do not become overwhelming. When new demands are placed on teachers, principals should have a clear plan for why this is being asked and how it is going to be accomplished. Building and maintaining a good relationship with subordinates is one of the key components of servant leadership and can help alleviate stress felt in the workplace.

Teachers' relationships with other teachers can also be a source of stress. When teachers feel they are not getting support from their colleagues, there are frequent disagreements, or when teachers feel isolated it can cause them to feel stress. Principals can help overcome this source of stress through encouraging positive relationships among subordinates. Providing time for teachers to collaborate is essential to ensure teachers do not feel isolated. Principals should join these meetings to help teachers work through disagreements, provide acknowledgement to teachers, and collect input from teachers on the direction of the school. Building partnerships among teachers through well-being supportive activities such as jogging clubs, yoga classes, or other exercise groups can also help reduce the feeling of isolation while fostering an environment that is supportive of stress relieving activities. Servant leaders will foster a school climate of support, not isolation, and put initiatives in place to support teachers in all aspects of their lives.

Parent/teacher relations are another source of stress for teachers and can be identified when teachers express that the parents are disinterested or that they are being judged by parents. To reduce the feeling that parents are disinterested, the principal should involve parents and the community in the school. The more parent and community involvement in the school, the more valued the school will become. Working with parents and engaging them in their children's education will help to create a better relationship between teachers and parents. Principals should also be supportive of

teachers in meeting with parents. They need to provide guidance and resources for parent interactions to ensure they are positive interactions. Principals should join parent meetings if the teacher is uncomfortable, help them prepare for the meeting in advance, and work with them after the meeting to over. This provides the teacher evidence that they are being supported and will help the teacher build confidence in interactions with parents.

Time management is a source of stress that can be seen when teachers feel overwhelmed by the workload, that they do not have time to complete their work, or if they lack organization skills. Principals must recognize that teachers have individual lives outside of the school and be respectful of this. When it is necessary for a principal to increase the workload of teachers, they must provide them a clear plan as to how the task is to be accomplished, when it is to be accomplished, and why it is important to the school. Principals must ensure that when teachers are asked to do more, they must be provided with the time to do it. Principals can help teachers manage their time by providing clear guidelines for tasks, providing guidance for when it can be completed, and providing advanced notice for when things are needed. Teachers that lack strong organizational skills may need extra help in managing their workload. When working with teachers that need this extra support, providing clear instructions, providing ample time, and providing the proper resources and support is crucial to ensuring they do not feel overwhelmed with additional work.

Teachers also experience stress from intrapersonal conflicts such as balancing the quality of instruction with the quantity of instruction or balancing instruction with classroom management. Principals can help alleviate stress from intrapersonal conflicts by working with the teacher individually to identify what is causing this imbalance and

then meeting their needs. Teachers new to the profession or new to the school may need additional supports to help navigate these conflicts. Mentoring programs can foster collaboration among staff members and help new teachers find a good balance in their practice, reducing intrapersonal conflicts. If the imbalance is coming from teaching and classroom management, then support and training could be provided in classroom management techniques. If the imbalance comes from quality of instruction versus quantity of instruction, the principal can help the teacher better understand the curriculum so that balance can be achieved.

In all of these situations, the key for the principal to remember is that each teacher may react differently to these stressors. The principal must also treat everyone as an individual. Each situation is different and the needs of each teacher are different. A principal that builds strong relationships with teachers, works hard to empower teachers, seeks to help teachers grow and develop, and recognizes the value in each individual teacher has the best chance to lead a successful organization.

The second practical implication can be seen at the district leadership level in education. District leaders are responsible for placing personnel in their schools, specifically principals. When a school district is faced with hiring a principal for a school that is not meeting state and local benchmarks, they must realize that they are hiring someone for a school that faces additional scrutiny and challenges. District leaders should seek candidates that display servant leadership characteristics when they hire principals for schools not meeting state and federal benchmarks. These leaders can reduce stress in teachers, create a sense of belonging and community among teachers, and increase the health of the organization. Hiring principals that display servant leadership characteristics can reduce teacher burnout and attrition, which will save the division

money in the training of new teachers. It will also provide solid leadership that focuses on developing others and giving back to the community, two characteristics that are valued in education. Seeking servant leadership characteristics in principals is one way that school districts can fight the nation-wide teacher shortage and ensure they are able to hire and maintain high quality teachers in all of their schools.

The question arises of how to identify leaders that have servant leadership characteristics. When seeking a building leader that displays servant leadership characteristics, the selection committee should look for someone that emphasizes serving everyone. Interview questions should be designed to see how they talk about all individuals: students, teachers, and parents. The servant leader will value all of these people as individuals, not just as groups. Servant leaders will talk about what is best for each individual student, what each individual teacher needs, and how to reach each individual parent. They will talk about using data to inform their decisions as to how best help each individual, not drive decisions for the organization. Professional development for teachers is essential for helping improve instruction in schools. Servant leaders will not only have a plan for professional development, they will express the need for that professional development to be individualized to meet the needs of individual teachers. Servant leaders will express a sincere desire and even ideas for actions directed toward helping all teachers grow and succeed.

The selection committee should seek a candidate that not only has a plan on how to involve the community in the school, but a plan for how the school can be involved in the community. Candidates that have a history of volunteer work, community service, and work in the development of others often demonstrate qualities of servant leaders. If a potential leadership candidate demonstrates they value others as individuals, has the skills

and desire to help others grow and succeed, and values giving back to the community, then they possess many of the characteristics of a servant leader and hold the potential to successfully lead an organization.

This research also has implications for superintendents at the district level. Superintendents set the direction for their school divisions and lead their schools through changes in educational policy. When undergoing changes, implementing new policies or practices, or making the decision to reduce staffing, superintendents must remember the impact their decisions have on the teachers in their schools. Additional work teachers face from implementing new initiatives or from staff reductions can increase teacher stress levels. Implementing changes such as these must be done strategically so that teachers understand the need for the change and are empowered to be able to deal with the results. When new initiatives involve additional work for teachers, they should also include removing something that teachers are currently doing or with time set aside to meet these new requirements. Changes in staffing should be done in a manner that unites a school rather than isolates teachers further. Superintendents also have a voice in the community and need to work diligently to create and maintain a good rapport between the school division and the surrounding community. Positive public relations campaigns, an open relationship with community news outlets, and fostering schools that promote community involvement can help school divisions be seen in a positive light by the communities they serve. If schools are seen in a positive light by the surrounding community, teachers will face less scrutiny from parents and other community members, which has been shown to be a source of stress. Superintendents are charged with leading schools that serve students and their community. Following these steps can help them do so in a manner that reduces stress on their teachers and provides their schools with the

stability they need to be successful.

The third practical implication of these findings can be seen in developing and training educational leaders. Programs that train educational leaders must realize that in today's educational environment with accountability practices at their peak, teaching is an extremely stressful occupation. Many future school administrators at some point in their career will either find themselves either working in a school that is not meeting state and federal benchmarks or working at the district level where one of their schools is not meeting state and federal accountability benchmarks. Programs that train future leaders must recognize this and ensure that future leaders are prepared to take on these roles. By having a curriculum that focuses on and emphasizes servant leader characteristics, leadership training programs are setting future leaders up to be successful. These leaders will be able to move forward with their career and find success and help others in their schools find success.

Can servant leadership be taught? While many would argue the innate desire to serve others cannot be taught, many of the characteristics of servant leadership can be trained and honed through training programs. Much of the training that would go into making a servant leader is similar to the training that goes into teaching. Teachers are taught that all students should be valued and respected. Servant leaders must also be taught that their organization is made of individuals that should be valued and respected. Teachers are taught to differentiate their instruction to meet the needs of all learners in their class. Servant leaders can be taught to differentiate their development strategies to meet the needs of all of the individuals in their organization. Teachers are taught to form relationships with their students. Servant leaders should be taught to form relationships with all individuals in their organization through effective communication, modeling

appropriate behaviors, and respecting each person in their organization. The parallels between the two are evident and just another example of how well servant leadership aligns with education.

Leaders can be taught the importance of forming relationships with subordinates and the skills to help them forge these relationships. Effective communication skills that focus on listening to stakeholders, strategies to empower others in decision-making processes, and strategies that foster a collaborative decision-making environment can be taught to aspiring leaders. Leaders can be given strategies to help identify the needs of individuals and taught skills to help others grow professionally. The importance of modeling appropriate behaviors and ethics through actions can be emphasized in leadership training programs. Aspiring and current leaders can be taught the conceptual skills needed to lead an organization. Leaders can be taught to be considerate of their subordinates as they make decisions. Strategies on how to create an organization that adds value to the community can be provided through leadership training. Not only can all of these skills be taught and honed, they should be. These qualities are needed by all leaders. While it may not be possible to teach someone to want to serve, the skills and qualities of a servant leader can and should be taught to aspiring leaders.

In addition to the implications for practice, there are also implications for research. Additional work in this area could investigate which of the seven characteristics of servant leadership had the largest impact on teacher occupational stress. This would lend even more insight to the practical implications above. This research indicated putting teachers first, which includes developing others, may have had the largest impact on their occupational stress. These items from the survey had the highest factor loadings and the largest impact on the servant leadership score. Future studies

could investigate if the findings of this study hold true not just in primary schools, but in secondary schools as well. Servant leadership aligns with education so well, future research should also investigate the effects of servant leadership on stress in teachers in general, not just in schools not meeting state and federal accountability benchmarks. Studies into what mediates the effects of servant leadership on teacher occupational stress are also needed. Is the effect the same for new teachers as it is for experienced teachers? Is the effect the same at the primary and the secondary level? These are both questions that need to be answered as researchers unpack the relationship between servant leadership and teacher occupational stress. Demographic variables in both teachers and principals should also be explored as mediators between servant leadership and teacher occupational stress. In this study, nearly 94% of the population was female and 82% of the population was white. The results may be different if the respondents were more diverse. Demographic characteristics of the principal were not considered in this study and should be considered in future research. This study was just the beginning and while the results were promising, there are still many unanswered questions about the relationship between servant leadership and occupational stress.

Conclusion

Teacher attrition and burnout is a problem facing many schools, particularly those not meeting state and federal accountability benchmarks. Teacher stress is a major factor in these areas. Servant leadership characteristics in principals can alleviate some of this stress, reducing teacher attrition and providing stability to the schools that need it the most.

Appendix A: Complete Survey Instrument

Part 1: Adapted Servant Leadership Scale

Each item is rated on a 5-point scale.

1 = to a very small extent 2 3 4 5 = to a great extent

1. My principal spends time to form quality relationships with teachers.
2. My principal creates a sense of community among teachers.
3. My principal's decisions are influenced by teachers' inputs.
4. My principal tries to reach consensus among teachers on important decisions.
5. My principal is sensitive to teachers' responsibilities outside of the work place.
6. My principal makes the personal development of teachers a priority.
7. My principal holds the teachers to a high ethical standard.
8. My principal does what she or he promises to do.
9. My principal balances concern for day-to-day details with projections for the future.
10. My principal displays wide-ranging knowledge and interests in finding solutions to work problems.
11. My principal makes me feel like I work with him/her, not for him/her.
12. My principal works hard at finding ways to help others be the best they can be.
13. My principal encourages teachers to be involved in community service and volunteer activities outside of work.
14. My principal emphasizes the importance of giving back to the community.

Part 2: Wilson Stress Profile for Teachers (Luh, Olejnik, Greenwood, & Parkay, 1991)

Each item is rated on a 5-point scale.

1 = Never 2 3 4 5 = Very often

1. I have difficulty controlling my class.
2. I become impatient/angry when my students do not do what I ask them to do.
3. Lack of student motivation to learn affects the progress of my students negatively.
4. My students make my job stressful.
5. I have difficulty in my working relationship with my administrator(s).
6. My administrator makes demands of me that I cannot meet.
7. I feel I cannot be myself when I am interacting with my administrator.
8. I feel my administrator does not approve of the job I do.
9. I feel isolated in my job (and its problems).
10. I feel my fellow teachers think I am not doing a good job.
11. Disagreements with my fellow teachers are a problem for me.
12. I get too little support from the teachers with whom I work.
13. Parents of my students are a source of concern for me.
14. Parent's disinterest in their child's performance at school concerns me.
15. I feel my student's parents think I am not doing a satisfactory job of teaching their children.
16. The home environment of my students concerns me.
17. I have too much to do and not enough time to do it.
18. I have to take work home to complete it.
19. I am unable to keep up with correcting papers and other school work.
20. I have difficulty organizing my time in order to complete tasks.
21. I put self-imposed demands on myself to meet scheduled deadlines.

22. I think badly of myself for not meeting the demands of my job.
23. I am unable to express my stress to those who place demands on me.
24. Teaching is stressful for me.
25. The frequency I experience one or more of the following symptoms is:
stomachaches, backaches, elevated blood pressure, stiff necks and shoulders.
26. I find my job tires me out.
27. I am tense by the end of the day.
28. I experience headaches.
29. I find myself complaining to others.
30. I am frustrated and/or feel angry.
31. I worry about my job.
32. I feel depressed about my job.
33. I am unable to use an effective method to manage my stress (such as exercise relaxation techniques, etc.)
34. Stress management techniques would be useful in helping me cope with the demands of my job.
35. I feel powerless to solve my difficulties.

Part 3: Demographic and other Control variables.

1. Age: What is your age? _____ years
2. Gender: Please specify your gender.
 - a. Male
 - b. Female
 - c. Prefer not to answer
3. Ethnicity origin (or Race): Please specify your ethnicity.
 - a. White
 - b. Hispanic or Latino
 - c. Black or African American
 - d. Native American or American Indian
 - e. Asian/Pacific Islander
 - f. Other
 - g. Prefer not to answer
4. How many years have you been a teacher? _____ years
5. How many years have you been in your current school? _____ years
6. How would you classify your position?
 - a. Classroom teacher
 - b. Reading specialist
 - c. Math specialist
 - d. Music teacher
 - e. Art teacher
 - f. PE teacher
 - g. Technology teacher
 - h. Special Education
 - i. Librarian
 - j. School Counselor
 - k. Other specialist
 - l. Other
7. If you selected classroom teacher, what grade(s) do you teach? Select all that

- apply.
- a. Pre-kindergarten
 - b. Kindergarten
 - c. First Grade
 - d. Second Grade
 - e. Third Grade
 - f. Fourth Grade
 - g. Fifth Grade
8. If you selected classroom teacher, what subjects do you teach? Select all that apply
- a. Math
 - b. Language arts
 - c. Science
 - d. Social Studies
9. What is the highest degree or level of school you have completed?
- a. Bachelor's degree (e.g. BA, BS)
 - b. Master's degree (e.g. MA, MS, MEd)
 - c. Specialist degree (e.g. EdS)
 - d. Doctorate (e.g. PhD, EdD)
10. What is your average daily commute time? _____ minutes
11. On average, how much time do you spend on leisure activities each weekday?
- a. Less than 1 hour
 - b. 1 hour
 - c. 2 hours
 - d. 3 hours
 - e. 4 hours
 - f. 5+ hours
12. How many times per week do you exercise?
- a. 0 -1
 - b. 2-3
 - c. 4-5
 - d. 6 or more

Appendix B: Adaptation of the Servant Leadership Scale.

Item	Original Item	Initial Revision	Final revision
1	My department manager spends time to form quality relationships with department employees.	My principal spends time to form quality relationships with teachers.	No change
2	My department manager creates a sense of community among department employees.	My principal creates a sense of community among teachers.	No change
3	My department manager's decisions are influenced by department employees' inputs.	My principal's decisions are influenced by teachers' inputs.	No change
4	My department manager tries to reach consensus among department employees on important decisions.	My principal tries to reach consensus among teachers on important decisions.	No change
5	My department manager is sensitive to department employees' responsibilities outside of the work place.	My principal is sensitive to teachers' responsibilities outside of the work place.	My principal is sensitive to teachers' responsibilities outside of the school.
6	My department manager makes the personal development of department employees a priority.	My principal makes the personal development of teachers a priority.	No change
7	My department manager holds the department employees to a high ethical standard.	My principal holds the teachers to a high ethical standard.	My principal holds teachers to a high ethical standard.
8	My department manager does what she or he promises to do.	My principal does what she or he promises to do.	No change
9	My department manager balances concern for day-to-day details with projections for the future.	My principal balances concern for day-to-day details with projections for the future.	No change
10	My department manager displays wide-ranging knowledge and interests in finding solutions to	My principal displays wide-ranging knowledge and interests in finding solutions to work	No change

	work problems.	problems.	
11	My department manager makes me feel like I work with him/her, not for him/her.	My principal makes me feel like I work with him/her, not for him/her.	No change
12	My department manager works hard at finding ways to help others be the best they can be.	My principal works hard at finding ways to help others be the best they can be.	No change
13	My department manager encourages department employees to be involved in community service and volunteer activities outside of work.	My principal encourages teachers to be involved in community service and volunteer activities outside of work.	No change
14	My department manager emphasizes the importance of giving back to the community.	My principal emphasizes the importance of giving back to the community.	No change

- 1) From original item to initial revision: Global changes department managers = principals; department employees = teachers.
- 2) From initial revision to final revision: Item 5 work place = school; Item 7 delete the.

Appendix C: Participation Consent Form

Identification of Investigators & Purpose of Study

You are being asked to participate in a research study conducted by Donald G. Harris a doctoral candidate at James Madison University. The purpose of this study is to investigate the relationship between leadership characteristics and qualities to teacher stress in schools not meeting state and federal accountability benchmarks. This study will contribute to the researcher's completion of his dissertation.

Research Procedures

This study consists of an online survey that will be administered to individual participants through email – online – using Qualtrics (an online survey tool). You will be asked to provide answers to a series of questions related to your perceptions of the principal in your building, the stress you feel from your work, and demographic information to be used as control variables.

Time Required

Participation in this study will require 7-13 minutes of your time.

Risks

The investigator does not perceive more than minimal risks from your involvement in this study (that is, no risks beyond the risks associated with everyday life).

Benefits

There are no direct benefits from participating in this study, however the study overall could help inform educational leaders about the link between certain leadership qualities and their effects on teacher stress, which could be used to inform administrative licensure training and hiring practices.

Confidentiality

The results of this research will be presented at a dissertation defense and potentially published in an academic journal. While individual responses are anonymously obtained and recorded online through the Qualtrics software, data is kept in the strictest confidence. Data will be collected through Qualtrics, which is hosted on JMU servers. Initial files that may contain participant email addresses will be downloaded to an encrypted flash drive that only I have access to, immediately password protected, and stored in a locked cabinet. The school name will be immediately replaced by a code. The master file will be kept separately on its own encrypted flash drive that only I have access to, with a password that only I have access to and will be stored in a locked cabinet. A new file without any identifiable data will be created and also immediately password protected. No identifiable responses will be presented in the final form of this study. All data will be stored in a secure location only accessible to the researcher. The researcher retains the right to use and publish non-identifiable data. At the end of the study, all records will be destroyed. Final aggregate results will be made available to participants upon request.

Participation & Withdrawal

Your participation is entirely voluntary. You are free to choose not to participate. Should you choose to participate, you can withdraw at any time without consequences of any kind. However, once your responses have been submitted and anonymously recorded you will not be able to withdraw from the study.

Questions about the Study

If you have questions or concerns during the time of your participation in this study, or after its completion or you would like to receive a copy of the final aggregate results of this study, please contact:

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Strategic Leadership Studies
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Questions about Your Rights as a Research Subject

Dr. David Cockley
Chair, Institutional Review Board
James Madison University
(540) 568-2834
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Giving of Consent

I have been given the opportunity to ask questions about this study. I have read this consent and I understand what is being requested of me as a participant in this study. I certify that I am at least 18 years of age. By clicking on the link below, and completing and submitting this anonymous survey, I am consenting to participate in this research.

Donald G. Harris

Name of Researcher (Printed)

2-10-2018

Date

This study has been approved by the IRB, protocol # 18-2083.

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