

INDIVIDUAL, OCCUPATIONAL, AND HEALTH FACTORS THAT  
CONTRIBUTE TO ABSENTEEISM OF TEACHERS IN  
TEXAS PUBLIC SCHOOLS

by

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## **DEDICATION**

I want to dedicate this thesis to, first, my mother. This is for all the times you carried me on your back through the worst of times. For all the headaches that, as a child and adult, I have given you. For all the times I did not make sense. And for all the meals that made this journey easier to bear.

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## **ABSTRACT**

The purpose of this study is to carefully evaluate the demographic, occupational, and health factors most associated with teacher absenteeism within the Texas public school system. Absenteeism is costly for organizations, especially those that depend on federal and state funding such as public schools. This study included 2,588 teachers from 46 public school districts in Texas who participated in an occupational health survey. Absenteeism was assessed as the physical absence from work. Individuals who self-reported that they were not present at work due to either personal reasons or due to illness were compared to individuals that had zero absences. The variables included in this study are individual demographics, basic teacher/classroom/school specific demographics, occupational indicators (organizational commitment, job involvement, job support, job control, climate and school problems), health factors (stress, physical and mental quality of life), and Axis I Psychopathology (Depression, Anxiety, Panic, Somatization). A multivariate negative binomial regression will be used to examine which variables are key predictors of teacher absenteeism within the Texas public school system. The results of this study will identify factors that contribute to overall absences of individuals in the work place, and may allow for recommendations of workplace changes that can be used to decrease absenteeism.

## I. INTRODUCTION

Employees missing days of work is costly for organizations because of the disruption to the work environment. Regardless of the reason, not being present at work can decrease morale of employees, disrupt the flow of the work place and damage the morale of those individuals covering for those absent (Hemp, 2004). While workplace absenteeism is often associated with illness, it has also been linked to occupational factors, such as job dissatisfaction and personality traits (Mount et. al., 2006). Simply put, whether an employee likes (satisfaction) or dislikes (dissatisfaction) their job could determine the likelihood that they would intentionally miss work (Fritzsche & Parrish, 2005). It is very important for organizations to understand the underlying factors that cause employees to miss days of work, and then use this information to create positive change in the workplace that promotes the satisfaction and well-being of employees. Innovative ways to decrease absenteeism is required to retain individuals of high morale and to decrease unnecessary cost to the organizations due to misuse of days off.

This thesis will provide a comprehensive overview of employee absenteeism. In addition, a discussion will demonstrate how occupational and health variables can contribute to absenteeism at work. Specifically, an examination of absenteeism within the education sector will be reviewed to provide a narrow focus on variables that are associated with teacher absenteeism. The purpose of this study is to isolate the factors that are directly and/or indirectly related to a public-school teacher's absence from work. By identifying these factors, it will give more insight on how to approach absenteeism and maximize productivity in the workplace.

## II. LITERATURE REVIEW

### **Absenteeism in the Workplace**

According to the withdrawal and process models of attendance behavior, people tend to not want to go to work when they do not enjoy being there, and this behavior is reversed when employees feel comfortable and happy at work (Johns, 1997; Steers & Rhodes, 1978; Youngblood, 1984). An inverse relationship has been found between job satisfaction and absenteeism (Porter & Steers, 1973). One problem that can be observed when using job satisfaction to predict absenteeism is the fact that individuals do not have to like their jobs in order to attend, making job satisfaction a flawed measure with which to predict absenteeism. Strict rules of attendance, the possibility of negative consequences, necessity and other factors could potentially make an employee attend work regardless of their job satisfaction (Diestel et al., 2014; Johns & Nicholson, 1982).

Absenteeism was defined by Goodman, Atkin, and Associates in 1984 in a two-part behavioral response that includes location and time. An employee is expected to be present at a specified time in a specific location. Therefore, when an individual is absent for any reason, the individual is not fulfilling their employment agreement (Moore, 1986). Organizations plan their budgets around the expectation that employees will be absent a certain number of workdays each year due to illness and other reasonable circumstances, but it is the excessive, repeated absences and misuse of these absences that disrupts productivity, becoming costly to an organization. About 10% of staff account for more than 50% of total absenteeism (Nader et al., 2006). It is estimated that absenteeism in America alone costs approximately 250 billion dollars every year (Losina et al., 2017). Because of the cost to the market economy, organizations look to understand the factors that contribute to this economic loss.

While it is normal to miss days at work for justifiable reasons, such as unforeseen life events, an illness, or to resolve a personal matter, the problem with absenteeism is that it becomes habitual for some employees, and once an employee has intentionally missed days of work it is likely that this behavior will be repeated (Arnold & Feldman, 1982; Mobley, 1977; Mobley et al., 1979; Mobley, 1982; Porter & Steers, 1973; Shore & Martin, 1989; Steel & Ovalle, 1984).

Absenteeism has been positively correlated with attrition and turnover (Cotton & Tulle 1986; Mobley et al., 1979; Shore & Martin 1989). Therefore, some of the factors that affect turnover and attrition also have been shown to affect the rates of absenteeism. Intent to quit (attrition) accounts for the most variance in turnover and is positively correlated with absenteeism; a combination of other factors, including demographic, occupational, and health variables contributes to the rest of the variance in turnover (Cotton & Tulle 1986; Mobley et al., 1979). Finding a way to decrease the probability an employee would miss days at work can lower the rate of absenteeism.

### **Occupational Factors related to Absenteeism**

There are many factors in the occupational setting that are known to contribute to absenteeism. Negative employee attitudes toward in the workplace have been shown to significantly impact absenteeism along with other key factors such as organizational commitment, job satisfaction, and workplace climate (Cotton & Tulle, 1986; Mobley et al., 1979; Porter & Steers, 1973). Commitment in the workplace is the interaction of the emotional and psychological connections that an employee has formed during their employment; these are displayed as the acceptance of the organization's goals and the

desire to be part of the company's overall mission statement (Blau & Boal, 1987). Level of commitment is measured by how well an employee identifies with his/her job or organization and how he/she participates in the operations of the organization. Characteristics of individuals who identify with or are highly involved in their job include: engaging in positive attitudes at work, going beyond the required task, and taking pride in the work performed (Landy & Conte, 2013; Lawler & Hall, 1970; Price 2000). People with stronger identification and involvement tend to want to stay within an organization and are less likely to miss work, indicating a negative relationship between occupational commitment and absenteeism (Cotton & Tulle, 1986; Mobley et al., 1979; Porter & Steers, 1973). Organizational commitment, when compared to the other occupational factors, is the best predictor of absenteeism within the general occupational setting (Losina, et.al., 2017, Mobley et al., 1979; Shore & Martin, 1989). For employees with a high level of organizational commitment, their job becomes a reflection of one's image. These highly committed employees identify with and care about their jobs and feel positively about the organizations they work for because it is part of their individual identity (Kanungo,1982).

Employee job satisfaction in addition to commitment becomes another principal factor when studying and discussing absenteeism. Employees are more likely to miss days from work if they do not like their job, and absenteeism tends to be low if their job satisfaction is high (Porter & Steers, 1973). Satisfaction is the positive appraisal of his/her job experiences, while a negative appraisal at the workplace results in low job satisfaction and dissatisfaction (Landy & Conte, 2013).

Research has shown that the level of job satisfaction seems to correlate with the amount of control and support an employee is given in the workplace (Mondal et.al,

2011). It is vital that employees feel in control at their place of work in order to keep job satisfaction high. Control has a negative relationship with intention to quit, implying that the more control one perceives, the lower the likelihood one will quit (Barling & Kelloway, 1996; Porter & Steers, 1973). Feeling supported in the work community promotes satisfaction, such that a workplace with supportive coworkers has a higher retention rate and lower rates of absenteeism (Billingsley, 2004; Elshout, et. al, 2013; Price, 2000; Porter & Steers, 1973). A lack of support from coworkers can make one feel alienated or disconnected in the workplace and can lead to dissatisfaction towards the job.

Both satisfaction and control are related to absenteeism.

Each workplace forms a unique climate and environment. Occupational climate is the culture, the ethics, and the interactions between people in the workplace as perceived by the employees (Aarons & Sawitxky, 2006; Billingsley, 2004; Landy & Conte, 2013). Culture in the workplace includes the meanings, expectations, norms, and behaviors of all employees within the organization (Landy & Conte, 2013). The climate of an organization is sensitive to inequality between employees, as well as to abusive and untrusting behaviors (Aarons & Sawitxky, 2006; Billingsley, 2004; Porter & Steers, 1973). However, supportive interactions between individuals improve perceptions of the climate in a work environment (Porter & Steer, 1973). The health of the work environment has an impact on absenteeism and job satisfaction. Individuals who perceive the workplace climate as being positive will have lower absenteeism, while a negative perception can lead to a higher likelihood of intentionally missing work (Aarons & Sawitxky, 2006; Porter & Steer, 1973).

## **Health Factors in Absenteeism**

Physical illness is one of the top reasons employees report missing work. In addition to general illnesses, absenteeism can be the result of stress, a typical experience in most workplace settings. Stress is a phenomenon in which one does not have access to the resources necessary to handle the appraised threat (Lazarus & Folkman, 1984). When the demands experienced by an individual surpass their capacity, stress is created (Lazarus & Folkman, 1984; Price, 2000). While most stress is deemed negative, stress can be a positive factor. There are two types of stress, eustress and distress. Eustress is considered a positive stress that can be used to motivate employees to meet the demands of the workplace. Distress is considered the negative stress that can hinder an employee's performance (Landy & Conte, 2013). The relationship between stress and employee performance follows an inverted parabolic, or U-shaped distribution. Low to moderate stress (eustress) encourages employees, resulting in positive outcomes for the organization, while chronic long-term exposure to negative stress (distress) can be damaging to the individual and his/her performance (Landy & Conte, 2013). Stressors are the factors that are directly related to the onset of stress. For example, overwhelming workload and limited time are the most commonly observed stressors in the workplace (Landy & Conte, 2013). Job stress can reduce satisfaction and commitment, indirectly leading to absenteeism (Landy & Conte, 2013; Mobley et al., 1979; Porter & Steers, 1973; Shore & Martin 1989; Wunder et al., 1982).

Workplace stressors affect more than just attendance in the workplace. For example, quality of life is of value both inside and outside the place of work. Quality of life refers to the mental and physical well-being of an individual, which is attributed to the absence of a mental disorder or ill health (Danna & Griffen, 1999; Landy & Conte,

2013; Van Dierendonck, Haynes, Borrill & Stride, 2004). Poor well-being in individuals can be related to higher absenteeism (Danna & Griffen, 1999; Van Dierendonck et al., 2004). Additionally, the presence of Axis I psychological disorders, including anxiety, depression, somatization, and panic is often used to determine the overall mental health of individuals, and has been related to workplace absenteeism (Baba et al., 1998; Porter & Steers, 1973). These conditions are described by the DSM-V as follows: anxiety disorder is described by persisting excessive worrying and tension created by the possibility of perceived danger. Depression is a temporary state often experienced with negative thoughts and feelings of sadness that can possibly lead to self-destructive behaviors which can hinder a person's problem-solving ability as well as their ability to overcome challenges. Somatization disorder is the manifestation of physical symptoms with no underlying medical cause observed (Comer, 2010). Panic disorder involves reoccurring uncontrollable presence of concern and worrying that leads to panic attacks which are intense and can affect and change behavior (Comer, 2010). Axis I psychological disorders have been found to be one of the leading reasons for absenteeism (Baba., et al 1998; Comer, 2010; Porter & Steers, 1973).

### **III. ABSENTEEISM IN TEACHERS**

Teachers missing school is a problem in the educational system, and it is estimated that 1 in 3 teachers will miss 10 days or more during the course of a school year (Toppo, 2013). The economic climate and decrease in funding can create a stressful workplace environment for teachers due to having to handle work overloads, long hours, and yielding limited reward (Van Dick & Wagner, 2001). It is estimated that the use of substitute teachers in grades K through 12 costs the educational system around four billion dollars annually (Miller, 2008). It was estimated that on each day in 2001, 274,000 classrooms had a substitute teacher in the United States of America (Trull, 2001). This number was double by 2009 and expected to be increasing (Charles, 2009). By the time students graduate from high school, they will spend at least one full year being educated by a substitute and this estimation is expected to be higher in areas with a low socioeconomic status (Haynes, 2014). High absenteeism may also lead to high turnover in the educational system. It is estimated that approximately 230,000 teachers transfer schools/districts or leave the profession every year (Haynes, 2014; Shen, 1997).

Teachers' absences can disrupt the school environment. Student achievement is negatively affected by the absence of regular instructors, and teacher absence has been found to affect low income students the most (Miller, 2008). Although absenteeism is the focus of organizations and companies for the monetary loss, it can be inferred that in the education system the biggest losses are reflected in the diminishing success of students (Keller, 2008). A review of the literature indicates that resources influence teacher absenteeism. In developing countries, such as Zambia and India, absenteeism is estimated to be much higher than in the United States; however, studying the effects of

this is nearly impossible because impoverished school systems usually do not keep records of teacher's absences (Das, Dercon, Habyarimana, & Krishnan, 2007; Duflo & Hanna, 2005). Even in the United States, teacher absenteeism data is not always available; however, when data from a sample of over 700 school districts in the New York State were collected, it revealed that teachers were absent 5% of the time during a period of one school year (Ehrenberg et al., 1991). Ten years later, in the year 2000, the U.S. Department of Education's survey revealed that the rate of absenteeism was 5.2% on any given day, which is 9.4 days out of a 180-day school year (Podgursky, 2003). The rate of absenteeism is higher in the educational system for teachers than the private sector employees according to the Bureau of Labor and Statistics reports, where the rate is around 1.7% of a professional's annual hours worked (Podgursky, 2003).

### **Teacher Demographics in Absenteeism**

The demographic factors that influence absenteeism in teachers include age, gender, ethnicity, presence/number of dependents, tenure, and education level, and these factors have been explored in great detail (Farrell & Stamm, 1988; Scott & McClellan, 1990; Shapira-Lishchinsky, 2012; Steel & Rentsch, 1995; Rosenblatt & Shirom 2005; Vistnes, 1997). Gender is a factor in absenteeism, such that male teachers have been shown to have lower rates of absenteeism than females (Farrell & Stamm 1988; Scott & McClellan 1990; Steel & Rentsch 1995). One explanation has been that women are more likely to stay at home because of cultural expectations to tend to family affairs (Ichino & Moretti 2009) or to attend to dependents (Scott & McClellan 1990). In developed countries, the role of a female caretaker is becoming less prominent, but in developing

countries women may experience more absenteeism than men because of societal expectations in which the woman assumes the role of caretaker rather than provider (Rosenblatt & Shirom, 2005, Vistnes, 1997).

Generally, age and absenteeism are positively correlated. Older individuals are usually more vulnerable to health-related problems that prevent them from completing their tasks at work (McMurray et al., 2001). Individuals older than 30 years old also have shown a negative correlation with absenteeism, a higher job commitment and lower absenteeism (Rosenblatt & Shirom, 2005;), have been shown to be more receptive to a positive work environment (Chaudhury & Ng, 1992), and tend to experience fewer injuries while performing their job than their counterparts (Vistnes, 1997).

Dependents can also affect absenteeism, such that the number of dependents that rely on an individual increases family commitments by adding more responsibilities that can increase absenteeism (Judge et al., 1997; Vistnes, 1997). The relationship between absenteeism and the number of dependents have yielded different results in the literature. Some studies have found a positive correlation between female teacher's absenteeism and the number of dependents in their care (Bridges & Mumford, 2000; Vistnes, 1997). Other researchers' studies have found no correlation between absenteeism and the number of dependents (Judge et al 1997; Rosenblatt & Shirom 2005; VandenHeuvel 1993). In developed nations, care of dependents is becoming less of a gender-assigned task, and because of this we should see a positive correlation between number of dependents and absenteeism for both males and females.

Rosenblatt and Shirom (2005) described that professionalism is positively related to years of education, yielding higher commitment to work. Furthermore, elevated levels

of job involvement and control have been observed in more educated teachers (Chaudhury & Ng 1992). Previous research has shown a negative relationship between the teachers' level of education and rates of absenteeism (Steel & Rentsch 1995).

### **Teacher Occupational Absenteeism**

Research has shown that teacher absenteeism is costly for school systems both monetarily and with its impact on the overall performance of students (Clotfelter et al., 2009; Miller et al., 2008). The factors causing this are not so easily isolated in terms of absenteeism. Some researchers have suggested that job involvement, job satisfaction, gender, and transportation are key factors for absenteeism in teachers (Scott & Wimbush, 1991). Others suggest school guidelines of operations, specifically how it deals with absentees, is closely related to teacher absenteeism (Clotfelter et al., 2009; Jacob, 2010). Commitment and job satisfaction have become more common factors when approaching the problem of absenteeism. High levels of commitment have been shown to lead to a lower likelihood of a teacher missing days at work (Billingsley & Cross, 1992).

External support from others as well as control of the work environment has been used as a factor to study absenteeism and attrition. How satisfied teachers are with their job can be linked to the support one has within the job environment and how much control they feel they have over their environment (Landy & Conte, 2013; Mondal et al., 2011). The freedom to control aspects of the classroom environment has been associated with higher overall satisfaction in teachers (Pearson & Moomaw, 2005; Shen, 1997). Examples of low control include the following: not having influence over the content and the teaching style, decision making, and/or policies related to the curriculum. These

factors have been shown to impact the overall level of satisfaction in teachers and result in dissatisfaction in their job (Billingsley & Cross, 1992; Mondal et al., 2011; Pearson & Moomaw, 2005; Shakrani, 2008; Shen, 1997; Yang et al., 2009). Lower satisfaction in teachers is related to higher absenteeism rates.

Principals and colleagues are seen as part of the support group that influence teachers (Dworkin et al., 1990; Mondal et al., 2011, Pearson & Moomaw, 2005; Shakrani, 2008; Shen, 1997). Support and acknowledgement from their peers leads to greater job satisfaction for teachers which results in lower absenteeism (Billingsley, 2004; Pearson & Moomaw, 2005; Shen, 1997). While research into occupations more generally indicates a negative relationship between supportive colleagues and employee's general absenteeism, this relationship has not been substantiated within the teaching profession.

Within the limited research on absenteeism within the teaching profession, job satisfaction, or lack thereof, has been found to be the biggest contributor to absenteeism.

### **Teacher Health Factors in Absenteeism**

Research has shown that younger aged teachers tend to report higher stress levels than older teachers (Mondal et al., 2011; Trendal, 1989). Tenure in the teaching profession may influence stress for individuals in this group more than any other groups (Haverman, 2007; Shakrani, 2008; Shen, 1997). Additionally, it has been shown that teachers in urban school areas are affected by higher levels of stress and therefore have greater amounts of absenteeism than those in rural school settings (Haverman, 2007).

Furthermore, teachers in special education have shown significantly higher levels of stress than individuals teaching general education (Shakrani, 2008; Trendal, 1989).

Stress affects individuals regardless of their profession, but stress-induced illnesses are reported to be higher within the teaching profession (Dworkin et al., 1990; Yang et al. 2009). Teachers have been seen to report more physical health issues (hypertension, cardiovascular disease, and headaches) and mental health issues (anxiety, somatic disorders and depression) than other occupations (Dworkin et al., 1990; Yang et al., 2009).

Depression, in addition to stress, is a common experience for individuals stemming from their occupations. It is estimated that around 350 million people worldwide experience depression at some point in their lives (Marcus, Yasamy, van Ommeren, Chisholm, & Saxena, 2012). Depression's devastating effects can be observed by the decreased productivity in the workplace as much as 48% and the cost to the United States of an approximated \$44 million dollars a year (Stewart, Ricci, Chee, Hahn, & Morganstein, 2003).

Employees have been found to be hesitant to talk about their symptoms even if they are believed to be experiencing depression and it may be affecting their performance (Steffick, Fortney, Smith, & Pyne, 2006). In 2005, Charbonneau et al. found that although 90% of individuals could positively identify the symptoms of depression only a fraction of them, 29%, will seek help or even discuss their problems with their current employer.

Adler et al. (2006) found experiencing depression in the workplace makes individuals more vulnerable to developing problems affecting psychological and

interpersonal tasks, time management, and output activities. Depression can disturb the working environment, but factors in the work environment can also influence depression (Besse, et. al. 2015).

Somatization, a disorder that can be defined as the reported presence of one or more symptoms that mimics medical conditions without explanation (Harvey & Wessely, 2013), has been found to play an important role in absenteeism in teachers. These pseudosymptoms can mimic conditions including but not limited to; chronic fatigue syndrome, fibromyalgia, irritable bowel syndrome and more common conditions such as headaches (Nater, Fischer, & Ehlert, 2011). The developing of somatization disorder has been found to be different by gender, with younger-middle age women found more vulnerable to the development of the illness (White, 2013).

In general, teachers have been found to report lower quality of life when taking into consideration physical and mental health, and have been observed to have a shorter life expectancy in comparison to other professions (Shakrani, 2008; Yang et al., 2009). Thus, rates of absenteeism are not impacted by a single factor but rather by a spectrum of psychological and physical components.

#### **IV. PURPOSE OF THESIS**

Utilizing data from an online comprehensive occupational health survey, this study aims to systematically evaluate the factors most strongly associated with absenteeism for teachers in the Texas public school sectors. The following factors will be considered for association with being absent at work in the teaching profession: basic demographics, teacher-demographics, occupational factors, and health variables.

##### **Hypotheses**

Demographic indicators hypothesized to be associated with absenteeism include the following:

- 1-Female Gender
- 2-Ethnicity
- 3-Fewer Years Teaching
- 4-Core Courses Taught
- 5-Rural Area Location
- 6-School Level
- 7-Lower School Rating

Occupational indicators hypothesized to be associated with absenteeism include the following:

- 8-High School Problems
- 9-Low Job Involvement
- 10-Low Organizational Commitment
- 11-Low Job Support

12-Low Job Control

Health indicators hypothesized to be associated with absenteeism include the following:

13-Presence of Axis I Psychopathology (Depression, Anxiety, Panic,  
Somatization)

14-High Perceived Stress

15-Poor Physical Quality of Life

16-Poor Mental Quality of Life

## **V. RESEARCH DESIGN AND METHOD**

### **Design**

This study will use previously collected data from a comprehensive occupational health study on public school teachers from 46 randomly chosen districts in Texas. All email addresses for current K-12 public school teachers were obtained through the Public Information Act and through the various school districts' administrative offices and public websites. A one-time email was sent asking for voluntary participation and contained a hyperlink; 3,361 teachers agreed to participate in the survey. The Texas State University Institutional Review Board previously approved this study.

### **Participants**

The present study used a subset of the data collected from the comprehensive occupational health teacher study. Only teachers who responded to the questions regarding absenteeism in the past month were included in this current study (n = 2588). The "Absenteeism" variable distribution asked respondents to indicate the number of days they have been absent from work in the past 4 weeks, broken down by "personal illness" and "personal non-illness." Those who reported 0 absences were placed in the "No Absenteeism" group. The participants with absences were grouped into "1 Absence" group those with 2 or more absences were included in the "2 or more Absence" group.

## **Measurements**

### **Demographic Factors**

The basic demographic factors of the teachers were examined as well as his/her classroom experience and the basic demographics of the school in which the teacher worked within the Texas' public school system. Gender, years of teaching, and age of the teacher were included in the teacher demographics that were examined. How individuals became teachers was also examined by "the method of certification" (traditional or alternative). The variable Classroom Experience was composed of the type of classes taught (core or elective) and the number of students with an individual education plan (IEP). The schedule of each teacher was examined by combining the number of hours in the following questions; "beyond school each day, how many hours are required to be at school each day?" and, "how many hours are spent at home grading papers or planning curriculum?" The type of school, the location of the school, and basic information of the school's accountability ratings were used for assessing the school's basic demographic variables. The school's type and location was analyzed by assessing the "area of school" (rural, urban, sub-urban) and the "type of school" (elementary, middle, and high). Texas schools' accountability ratings were based on the students' test scores on state-mandated testing. The accountability ratings in Texas schools are classified as: Exemplary, Recognized, Acceptable, and Unacceptable.

### **Occupational Factors**

Occupational variables were examined to see how well they predicted absenteeism in the teaching profession. Several scales used in this current study were

extracted from the 2007-2008 Schools and Staffing Survey (SASS) conducted by the U.S.

Department of National Center for Education Statistics (2010). This established survey covers an array of topics: characteristics of the teacher, students and administrations, the conditions and context within the school and any problems within the school (student, administration, or school related).

### **Organizational Commitment and Job Involvement**

The commitment an individual has towards his/her school and job was assessed. The organizational commitment survey consists of seven questions that address overall commitment to the school, refer to Appendix A (U.S. Department of National Center for Education Statistics, 2010). Examples of questions include “I think about staying home from school because I'm just too tired to go” and, “the teachers at this school like being here; I would describe us as a satisfied group.”

Lodahl and Kejnar (1965) designed a 20-item Job Involvement scale, which measures how a person connects to the job and the relationship the job has with an individual's total self-image (see Appendix C). The questions on the scale ask how strongly one agrees with certain statements. For example, “I would probably keep working even if I didn't need the money,” and “I'll stay overtime to finish a job.” The internal reliability of the scale is .79 (Ramsey, Laask & Marshall, 1995).

### **Job Satisfaction**

The job satisfaction variable was comprised of ten items which asked teachers to rate satisfaction using a scale from 0 to 10 regarding their perceived support from a variety of sources (parents, grade-level teachers, community, district administration, etc.) within the teaching environment (See Appendix D).

### **Job Control, School Climate, and School Problems**

The scales for control, climate, and school problems were all extracted from the 2007-2008 Schools and Staffing Survey (SASS) (U.S. Department of National Center for Education Statistics, 2010). The variable of control was assessed by six questions asking teachers to rate from 0 to 10 how much control they have over certain aspects within the classroom. “Selecting textbooks and other instructional material,” “Selecting content, topics, and skills to be taught” and “Selecting teaching techniques” are some of the questions asked for this variable (refer to Appendix E). The composite scores for support and control were used to determine the variable job satisfaction, and to predict absenteeism rates.

Climate is another factor that was assessed for this study. Examples of statements included: “the school administration's behavior toward the staff is supportive and encouraging,” “I am satisfied with my teaching salary,” and “the level of student misbehavior in this school (such as noise, horseplay or fighting in the halls, cafeteria, or student lounge) interferes with my teaching.” There were seventeen questions that comprised the scale for climate (see Appendix F). Problems teachers perceived to be in the workplace were also assessed. Ten questions were used to create a composite score

that asked teachers to rate the strength of problems within the school, such as student absenteeism, students dropping rates and lack of parent support or involvement (See Appendix G). Perception of the environment and perceived problems with the school were constituted to be part of the overall character of the climate.

### **Health Factors**

The health factors that were collected for this study included self-reported perceived stress, quality of life, psychological, and physical health factors. Stress was assessed using the Perceived Stress Scale (PSS), a well-established measure in the literature that addresses which life situations are appraised as stressful (Cohen & Williamson, 1988). The PSS-10 is comprised of 10 questions that require individuals to report how often one has felt stressed in the last month. Examples of these questions are “Felt confident about your ability to handle your personal problems,” “Felt that things were going your way”, “Found that you could not cope with all the things that you had to do.” (see Appendix H). Cronbach’s alpha for reliability of this established scale is between .84 and .86 (Cohen, Kamarck, & Mermelstein, 1983).

### **Mental and Physical Quality of Life**

The wellbeing of the individual was assessed by using health-related quality of life, both physical and mental, as measured by the Short-Form 36 Health Inventory (SF-36) (refer to Appendix J). Individuals were asked to “indicate if your current health limits you in the following activities that might occur during a typical day.” “Lifting or carrying

groceries,” “Climbing several flights of stairs,” and “Climbing one flight of stairs” are examples of activities in question that depict the physical quality of life of an individual. The mental quality of life examples are “Did you feel full of pep?” “Have you been a very nervous person?” “Have you felt so down in the dumps that nothing could cheer you up?” Composite scores were produced for mental and physical scales of quality of life; the reliability ranges between .77 and .94 (Ware, Gandek & the IQOLA Group; 1994).

### **Psychopathology and Physical Health**

The Patient Health Questionnaire (PHQ) is a well-established and validated instrument used to measurement the physical health and psychological health of an individual when under primary care settings. The PHQ addresses Axis I psychopathology by determining if an individual meets the minimum criteria for mental disorders according the DSM-IV, specifically anxiety, depression, panic disorders, somatization (See Appendixes K, L, M, & N). The internal consistency of these scales is between .86 and .89 (Spitzer, Kroenke, Williams & the Patient Health Questionnaire Primary Care Study Group, 1999). The current self-reported physical health of the teacher was assessed by The General Health History questionnaire (refer to Appendix P). This checklist consists of 60 items containing current health conditions created and used by hospitals (Spitzer et al.,1999).

### **Statistical Analysis**

Two sets of univariate statistics were conducted comparing those with no absenteeism to those had absenteeism (either 1 absence or 2 or more days absent), based

on personal illness and personal non-illness only. One -Way ANOVAs were used for comparisons of variables measured on a continuous scale and chi-square tests of independence were used to assess categorical variables. The appropriate post hoc tests were conducted. Because the dependent variable is a count, rather than a score, two multivariate negative binomial regression models were then used to identify the key variables most associated with absenteeism for personal illness and absenteeism for personal non-illness in the Texas public school system. Variables significant at the univariate level were included in the final regression models. The alpha level was set at  $p = .05$ . All analyses were conducted using SPSS v. 24.

## VI. RESULTS

### Univariate Analysis

All data were prescreened for outliers and missing data prior to analysis. For the absenteeism variables, responses were coded and grouped into the following three categories: no absenteeism, one absence, and two or more absences, for both personal illness; for example, missing days at work due to not feeling well physically (flu, headaches, etc.) and for personal non-illness; for example, to attend an non-urgent occasion, (birthdays, events, other personal activities). The univariate analyses were conducted to determine if there were differences between individuals with no absences, only one absence, or two or more absences in the past four weeks.

### Demographic Factors for Absenteeism: Personal-Illness

The univariate analyses results for the demographic factors are displayed in Table 1. A Chi-Square test of Independence compared the effect of gender on personal illness absenteeism. The percentage of participants that reported no absenteeism, one absence, or two or more absences did not differ by gender,  $\chi^2 (2, N = 2306) = .2312, p = .315$ .

A one-way between subjects ANOVA was conducted to compare the effect of age on personal illness absenteeism in the no absence, one absence absenteeism, or two or more absences conditions. There was a significant effect of age on absenteeism for the three conditions [ $F(2, 2288) = 4.778, p = .009$ ]. Older teachers reported more absenteeism for two more absences compared to the one absence condition and the no absenteeism condition.

A Chi-square test of Independence was conducted to compare the effect of ethnicity for hypothesis 2 on personal illness absenteeism in the no absence, one absence absenteeism, and two or more absences conditions. The percentage of participants that reported no absenteeism, one absence, or two or more absences differed significantly by ethnicity,  $\chi^2(4, N = 2305) = 18.28, p < .001$ . Whites/Caucasians were more likely to have 0 or 1 absence, African Americans were more likely to have two or more absences, and Hispanics were more likely to 1 or 2 or more absences.

A Chi-square test of Independence was conducted to compare the effect of marital status on personal illness absenteeism in the no absence, one absence, or two or more absences conditions. The percentage of participants that reported no absenteeism, one absence, or two or more absences differed significantly by marital status,  $\chi^2(8, N = 2270) = 34.51, p < .001$ . Those reporting one absence or two or more absences were more likely to be single, whereas those in the no absenteeism group were more likely to be married.

### **Teacher Factors for Absenteeism: Personal-Illness**

The univariate results for the teacher factors are displayed in Table 2. A one-way between subjects ANOVA was conducted to compare the effect of the total years' experience in the teaching profession on personal illness absenteeism in no absence, one absence absenteeism, and two or more absences conditions. There was not significant effect of years teaching on absenteeism for the three conditions [ $F(2, 2300) = 1.837, p = .160$ ].

A Chi-square test of Independence was conducted to compare the effect of teacher certification route on personal illness absenteeism in the no absence, one absence absenteeism, or two or more absences conditions. The percentage of absences differed significantly by certification mode,  $\chi^2 (6, N = 2306) = 15.04, p = .020$ . Those with the Alternative Certification were significantly more likely to have two or more absences, while those with a Traditional Certification were more likely to have none or only one absence.

A one-way between subjects ANOVA was conducted to compare the effect of work hours/day on personal illness absenteeism in the no absence, one absence absenteeism, or two or more absences conditions. There was a significant effect of the work hours in a day on absenteeism for the three conditions [ $F(2, 2208) = 5.125, p = .006$ ]. Teachers who reported two or more absences indicated a greater number of work hours per day compared to teachers in the one absence condition and the no absenteeism condition.

A Chi-square test of Independence was conducted to compare the effect of teaching core courses on personal illness absenteeism in the no absence, one absence absenteeism, or two or more absences conditions. The percentage of participants that reported no absenteeism, one absence, and two or more absences did not differ by core course load,  $\chi^2 (2, N = 2305) = 1.107, p = .575$ .

A Chi-square test of Independence was conducted to compare the effect of location (rural, suburban, or urban) on personal illness absenteeism in the no absence, one absence absenteeism, or two or more absences conditions. The percentage of

teachers that reported no absenteeism, one absence, and two or more absences differed significantly by area location,  $\chi^2(6, N = 2305) = 24.506, p < .001$ . Teachers in urban areas were more likely to report one absence or two or more absences. Teachers in suburban areas were more likely to report no absenteeism or two or more days, while teachers in rural areas were less likely to report two or more absences.

A Chi-square test of independence was conducted to compare the effect of school level on personal illness absenteeism in the no absence, one absence absenteeism, and two or more absences conditions. The percentage of participants that reported no absenteeism, one absence, and two or more absences differed significantly by school level,  $\chi^2(12, N = 2306) = 27.59, p = .006$ . Teachers in elementary school level were more likely to report no absenteeism and less likely to report one or 2+ absences. Teachers in the middle school level were more likely to report 2+ absences, and teachers in the high school level were more likely to report only one absence.

A Chi-square was conducted to compare the effect of current school rating on personal illness absenteeism in the no absence, one absence absenteeism, and two or more absences conditions. The percentage of participants that reported no absenteeism, one absence, and two or more absences differed significantly by school rating,  $\chi^2(6, N = 1874) = 37.36, p < .001$ . Teachers in exemplary school districts were more likely to report no absences. Teachers in recognized school districts were more likely to report one absence. Teachers in the acceptable school districts were more likely to report zero or one absence, while those teaching in a low performing school rating were more likely to report 2+ absence

### **Occupational Factors for Absenteeism: Personal-Illness**

The univariate results for the occupational factors are displayed in Table 3. A oneway between subjects ANOVA was conducted to compare the effect of job involvement on personal illness absenteeism in the no absence, one absence absenteeism, and two or more absences conditions. There was a significant effect of the level of job involvement on absenteeism for the three conditions [ $F(2, 2197) = 3.62, p = .027$ ]. Teachers with two or more absences had lower mean job involvement scores compared to the teachers in the one absence condition and the no absenteeism condition.

A one-way between subjects ANOVA was conducted to compare the effect of job control on personal illness absenteeism in the no absence, one absence absenteeism, and two or more absences conditions. There was a significant effect of the level of job control on absenteeism for the three conditions [ $F(2, 2129) = 25.36, <.001$ ]. Teachers in the two more absences reported lower job control compared to the teachers in the one absence condition and the no absenteeism condition.

A one-way between subjects ANOVA was conducted to compare the effect of school climate on personal illness absenteeism in the no absence, one absence absenteeism, and two or more absences conditions. There was a significant effect of job climate on absenteeism for the three conditions [ $F(2, 2053) = 36.20, p <.001$ ]. Teachers with two more absences indicated lower school climate scores compared to teachers in the one absence condition and the no absenteeism condition

A one-way between subjects ANOVA was conducted to compare the effect of school problems on personal illness absenteeism in the no absence, one absence absenteeism, and two or more absences conditions. There was a significant effect of school problems on absenteeism for the three conditions [ $F(2, 2058) = 20.48, p < .001$ ]. Teachers in the two more absence group reported significantly higher amounts of school problems compared to the teachers in the one absence condition and the no absenteeism condition.

### **Health Factors for Absenteeism : Personal-Illness**

The results from the univariate analyses for the health factors are displayed in Table 4. A one-way between subjects ANOVA was conducted to compare the effect of perceived stress on personal illness absenteeism in the no absence, one absence absenteeism, and two or more absences conditions. There was a significant effect of perceived stress on absenteeism for the three conditions [ $F(2, 1920) = 29.77, p < .001$ ]. Teachers in the two more absences reported significantly higher perceived stress scores as compared to those in the one absence condition and the no absenteeism condition.

A one-way between subjects ANOVA was conducted to compare the effect of mental quality of life on personal illness absenteeism in the no absence, one absence absenteeism, and two or more absences conditions. There was a significant effect of mental quality of life on absenteeism for the three conditions [ $F(2, 1819) = 24.77, p < .001$ ]. Teachers in the one absence or two more absences groups reported worse mental quality of life compared to the teachers in the no absenteeism condition.

A one-way between subjects ANOVA was conducted to compare the effect of physical quality of life on personal illness absenteeism in the no absence, one absence absenteeism, and two or more absences conditions. There was a significant effect of physical quality of life on absenteeism at the  $p < .05$  level for the three conditions [ $F(2, 1819) = 73.99, p < .001$ ]. Teachers in the one absence or two more absences groups reported worse physical quality of life compared to the teachers in the no absenteeism condition.

A Chi-square was conducted to compare the effect of depression on personal illness absenteeism in the no absence, one absence absenteeism, and two or more absences conditions. The percentage of participants with depression differed significantly between the no absenteeism, one absence, and two or more absences groups,  $\chi^2(2, N = 1987) = 27.24, p < .001$ . Teachers with depression were more likely to report one or 2+ absences, while teacher that reported no depression were more likely to have no absences.

A Chi-square was conducted to compare the effect of anxiety on personal illness absenteeism in no absence, one absence absenteeism, and two or more absences conditions. The percentage of teachers with an anxiety disorder differed significantly between the no absence, one absence, and two or more absences groups  $\chi^2(2, N = 1986) = 48.06, p < .001$ . Teachers with anxiety were more likely to report one or 2+ absences, while teachers with no anxiety were more likely to report no absences.

A Chi-square was conducted to compare the effect of panic disorder on personal illness absenteeism in the no absence, one absence absenteeism, and two or more

absences conditions. The percentage of teachers with a panic disorder differed significantly between the no absenteeism, one absence and two or more absences groups,  $\chi^2 (2, N = 1987) = 27.24, p < .001$ . Individuals with panic disorder were more likely to report one or 2+ absences. Teachers with no panic disorder were more likely to report no absences.

A Chi-square was conducted to compare the effect of somatization disorder on personal illness absenteeism in the no absence, one absence absenteeism, and two or more absences conditions. The percentage teachers with somatization disorder differed significantly between the no absenteeism, one absence and two or more absences groups,  $\chi^2 (2, N = 1906) = 195.7, p < .001$ . Individuals with somatization disorder were more likely to report one or 2+ absences while teachers with no somatization disorder more likely to report zero and one absence.

### **Demographic Factors for Absenteeism: Personal-Non-Illness**

All data were prescreened for outliers and missing data prior to analyses. Indicators most associated with absenteeism in the personal non-illness category were determined by the free response question: “how many days have you been absent from work due to personal non-illness in the past 4 weeks?” All responses were coded and grouped into the following categories: no absenteeism, absenteeism (one absence), and absenteeism (two absences or more). The univariate analyses were conducted to determine if the differences between individuals with no absences (no absenteeism), absenteeism (one absence) and absenteeism (two or more absences) in a period of 4 weeks.

The results of the univariate analyses for the demographic factors are displayed in Table 5. A Chi-square was conducted to compare the effect of gender on personal non-illness absenteeism in the no absence, one absence absenteeism, and two or more absences conditions. The percentage of participants that reported no absenteeism, one absence and two or more absences did not differ by gender,  $\chi^2 (2, N = 2302) = .392, p = .822$ .

A one-way between subjects ANOVA was conducted to compare the effect of age on personal non-illness absenteeism in the no absence, one absence absenteeism, and two or more absences conditions. There was a significant effect of age on absenteeism for the three conditions [ $F(2, 2286) = 5.13, p = .006$ ]. Teachers in the two or more absences group were significantly older compared to those in the one absence condition and the no absenteeism condition.

A Chi-square was conducted to compare the effect of ethnicity on personal non-illness absenteeism in the no absence, one absence absenteeism, and two or more absences conditions. The percentage of participants that reported no absenteeism, one absence, and two or more absences do not differ by ethnicity,  $\chi^2 (12, N = 2301) = 9.03, p = .700$ .

A Chi-square was conducted to compare the effect of marital status on personal non-illness absenteeism in the no absence, one absence absenteeism, and two or more absences conditions. The percentage of participants that reported no absenteeism, one absence and two or more absences differed significantly by marital status  $\chi^2 (8, N =$

2269) = 16.65,  $p = .034$ . Teachers who are single were less likely to report two or more absences.

### **Teacher Factors for Absenteeism: Personal-Non-Illness**

The results of the univariate analyses for the teacher factors are displayed in Table 6. A one-way between subjects ANOVA was conducted to compare the effect of years teaching on personal non-illness absenteeism in the no absence, one absence absenteeism, and two or more absences conditions. There was not a significant difference in years teaching on absenteeism for the three conditions [ $F(2, 2296) = 2.47, p = .080$ ].

A Chi-square was conducted to compare the effect of certificate route on personal non-illness absenteeism in the no absence, one absence absenteeism, and two or more absences conditions. The percentage of participants that reported no absenteeism, one absence, and two or more absences did not differ by certification mode,  $\chi^2(6, N = 2302) = 9.01, p = .173$ .

A one-way between subjects ANOVA was conducted to compare the effect of work hours in a day on personal non-illness absenteeism in the no absence, one absence absenteeism, and two or more absences conditions. There was not a significant difference in the work hours in a day between the three conditions [ $F(2, 2205) = 1.61, p = .199$ ].

A Chi-square was conducted to compare the effect of teaching core courses on personal non-illness absenteeism in the no absence, one absence absenteeism, and two or more absences conditions. The percentage of participants that reported no absenteeism, one absence, and two or more absences did not differ significantly by core course load,  $\chi^2(2, N = 2302) = 2.935, p = .230$ .

A Chi-square was conducted to compare the effect of area location (rural, suburban, and urban) on personal non-illness absenteeism in the no absence, one absence absenteeism, and two or more absences conditions. The percentage of participants that reported no absenteeism, one absence and two or more absences differed significantly by area location,  $\chi^2 (6, N = 2302) = 13.55, p = .035$ . Teachers in rural areas were more likely to have one or no absences. Those in sub-urban areas were more likely to have either no absences or 2+ absences, while those in the urban areas were more likely to have none to one absence.

A Chi-square was conducted to compare the effect of school level on personal non-illness absenteeism in the no absence, one absence absenteeism, and two or more absences conditions. The percentage of participants that reported no absenteeism, one absence and two or more absences did not differ significantly by school level,  $\chi^2 (12, N = 2302) = 16.56, p = .167$ .

A Chi-square was conducted to compare the effect of current school rating on personal non-illness absenteeism in no absence, one absence absenteeism, and two or more absences conditions. The percentage of participants that reported no absenteeism, one absence and two or more absences do not differ significantly by school rating.  $\chi^2 (6, N = 1868) = 5.81, p = .444$ .

### **Occupational Factors for Absenteeism: Personal-Non-Illness**

The results of the univariate analyses for the occupational factors are displayed in Table 7. A one-way between subjects ANOVA was conducted to compare the effect of job involvement on personal non-illness absenteeism in the no absence, one absence

absenteeism, and two or more absences conditions. There was a significant effect of the level of job involvement on absenteeism for the three conditions [ $F(2, 2205) = 13.46, p < .001$ ]. Teachers in the two more absences group had significantly lower job involvement scores compared to those in the one absence condition and the no absenteeism condition.

A one-way between subjects ANOVA was conducted to compare the effect of job control on personal non-illness absenteeism in the no absence, one absence absenteeism, and two or more absences conditions. There was no significant effect of the level of job control on absenteeism for the three conditions [ $F(2, 2122) = 2.22, p = .108$ ].

A one-way between subjects ANOVA was conducted to compare the effect of school climate on personal non-illness absenteeism in the no absence, one absence absenteeism, and two or more absences conditions. There was a significant effect of the level of school climate on absenteeism for the three conditions [ $F(2, 2039) = 5.39, p = .005$ ]. Teachers in the two or more absences group reported significantly lower scores for school climate as compared to teachers in the one absence condition and the no absenteeism condition.

A one-way between subjects ANOVA was conducted to compare the effect of school problems on personal non-illness absenteeism in the no absence, one absence absenteeism, and two or more absences conditions. There was not a significant effect of school problems on absenteeism for the three conditions [ $F(2, 2015) = 2.66, p = .070$ ].

### **Health Factors for Absenteeism: Personal-Non-Illness**

The results of the univariate analyses for the health factors are displayed in Table 8. A one-way between subjects ANOVA was conducted to compare the effect of perceived stress on personal non-illness absenteeism in the no absence, one absence absenteeism, and two or more absences conditions. There was not a significant difference in perceived stress levels between the three conditions [ $F(2, 1923) = .608, p = .545$ ].

A one-way between subjects ANOVA was conducted to compare the effect of mental quality of life on personal non-illness absenteeism in the no absence, one absence absenteeism, and two or more absences conditions. There was not a significant effect of mental quality of life on absenteeism at the  $p < .05$  level for the three conditions [ $F(2, 1811) = 1.28, p = .277$ ].

A one-way between subjects ANOVA was conducted to compare the effect of physical quality of life on personal non-illness absenteeism in the no absence, one absence absenteeism, and two or more absences conditions. There was a significant effect of physical quality of life on absenteeism for the three conditions [ $F(2, 1812) = 3.56, p = .028$ ]. Teachers reporting better physical quality of life scores were less likely to indicate absences for personal non-illness.

A Chi-square was conducted to compare the effects of Axis I psychopathology (depression, anxiety, panic, and somatization disorders) on personal non-illness absenteeism in the no absence, one absence absenteeism, and two or more absences conditions. The percentage of participants that reported no absenteeism, one absence and two or more absences did not differ significantly by the presence of depression,  $\chi^2(2, N$

= 1985) = 3.01,  $p=.221$ , anxiety,  $\chi^2 (2, N = 1985) = .434$ ,  $p =.805$ , panic disorder,  $\chi^2 (2, N = 2030) = .018$ ,  $p =.724$ , or somatization disorder,  $\chi^2 (2, N = 2056) = .032$ ,  $p =.984$ .

### **Multivariate Analysis for Overall Absenteeism**

Two negative binomial regressions were performed to ascertain the key variables related to absenteeism for personal-illness absenteeism and personal-non-illness absenteeism. Variables found significant at the univariate level were included in each of the models.

### **Multivariate Analysis for Overall Absenteeism: Demographics Factors**

For demographic comparisons, age was found to be a significant factor that affects personal illness absenteeism but not personal non-illness absenteeism, such that an increase of age increases the level of personal illness absenteeism. As the age of the teacher increases by one year, they are 1% more likely to increase their level of absenteeism.  $\chi^2 (2082)=5.51$ ,  $B=.010$ ,  $P=.019$ .

Ethnicity was found to be a significant factor that affects personal illness absenteeism, but not personal non-illness absenteeism. For personal illness absenteeism, the Caucasian group was used as the reference group. African American teachers have a 20% less likelihood of personal-illness absenteeism, as compared to Caucasians.  $\chi^2 (2082) =3.90$ ,  $B=-.226$ ,  $P=.048$ .

Marital status was found to be a significant factor that affects personal illness absenteeism but not personal non-illness absenteeism, such that an individual who reported being single had a decrease in the level of personal illness absenteeism. Single

individuals have a 45% less level of absenteeism compared to married individuals.  $\chi^2$  (2082) = -.614, B=2.67, P=.019.

### **Multivariate Analysis for Overall Absenteeism: Occupational Factors**

Occupational factors, including certificate method, work hours/day, area location, current school climate and school problems were included in the negative binomial regression models for overall absenteeism, if they were significant at the univariate level for the personal illness or personal non-illness comparisons.

School area was found to be a significant factor that affects personal illness absenteeism and personal non-illness absenteeism. For personal illness, teachers in urban areas are 47% less likely than teachers in suburban areas to report absenteeism.  $\chi^2$  (2082) = 8.06 B = -.643, P = .005. For personal non-illness, teachers in rural areas are more likely to report absences as compared to teachers from suburban areas,  $\chi^2$  (2082) = 3.93 B = .115, P = .047.

School level was found to be a significant factor that affects personal-illness absenteeism, such that teachers in elementary schools lower likelihood of absenteeism as compared to teachers in high schools. Participants in elementary schools are 24% less likely to be absent,  $\chi^2$  (2082) = 4.62 B = -.278, P = .031.

Job involvement was found to be a significant factor that affects personal-non-illness absenteeism, such that teachers with high job involvement have decreased levels of absenteeism. Participants with an increase of 1 unit of job involvement are 2.1% more likely to decrease their level of absenteeism.  $\chi^2$  (2082) = 19.59 B = -.022, P < .001.

## **Multivariate Analysis for Absenteeism: Health Factors**

Health factors, including perceived stress, mental quality of life, and physical quality of life, major depression, panic disorder and somatization disorder, were assessed at the multivariate level for personal-illness absenteeism and personal-non-illness absenteeism, if identified as significant at the univariate level.

Physical quality of life was found to be a significant factor that affects personal illness absenteeism but not personal non-illness absenteeism such that those with a better physical quality of life have a decreased level of absenteeism. When participants increase their physical quality of life by one unit they are 4% more likely to decrease their level of personal illness absenteeism.  $\chi^2 (2082) = 54.52$   $B = -.042$ ,  $P < .001$ .

Mental quality of life was found to be a significant factor that affects personal illness absenteeism but not personal non-illness absenteeism, such that those with a better physical quality of life have a decreased level of absenteeism. When participants increase their mental quality of life by one unit they are 1.6% more likely to decrease their level of personal illness absenteeism.  $\chi^2 (2082) = 6.62$   $B = -.017$ ,  $P = .010$ .

## VI. DISCUSSION

The purpose of the current study was to carefully evaluate the demographic, occupational, and health factors most associated with teacher absenteeism within the Texas public school system. In the general workplace, absenteeism has been shown to decrease the morale of employees, disrupt the flow of the workplace, and damage the morale of those individuals covering for those absent (Hemp, 2004). The current study used a biopsychosocial approach to evaluate the factors that influence absenteeism in the teaching profession, including demographic factors (gender, age, race/ethnicity, marital status), occupational factors (years teaching, certificate method, work hours per day, core classes, area location, school level, current school rating, job involvement, job control, school climate, and school problems), and health factors (perceived stress, mental quality of life, physical quality of life, major depression, anxiety disorder, panic disorder and somatization disorder).

Contrary to Hypothesis 1, gender was not found to be a significant factor for absenteeism for personal-illness or personal-non-illness at the univariate level. Previously, gender has been observed as a factor in absenteeism, such that male teachers have been shown to have lower rates of absenteeism than females (Farrell & Stamm 1988; Scott & McClellan 1990; Steel & Rentsch 1995). The majority of participants in the study being female could explain this null result.

Rosenblatt and Shirom (2005) described that professionalism is positively related to years of experience, yielding higher commitment to work. Furthermore, elevated levels of job involvement and control have been observed in more experienced teachers (Chaudhury & Ng 1992). Hypothesis 3, stating that fewer years of experience will be

related to absenteeism was not supported for the personal-illness absenteeism or for the personal-non-illness absenteeism. It is possible that the teachers who report more years teaching are more committed to the profession but this does not determine how many days of work are going to be missed during their school year.

Hypothesis 4 predicted that teaching core courses would be factor that had an effect on absenteeism. A significant effect was not found in either the personal-illness or the personal-non-illness absenteeism conditions at the univariate level. This finding could be due to the fact that the number of courses that are electives are fewer than the number of required courses, and therefore more teachers will, at some point, be required to teach core courses. Area type (urban, rural and sub-urban) has been observed as a key factor for absenteeism (Scott & Wimbush, 1991). The types of areas where teachers work have an effect on the behavior of teachers at the work place. Hypothesis 5 predicted the area of a school to have an effect on teacher absenteeism. This hypothesis was supported for personal-illness and personal-non-illness. Teachers in rural settings were less likely to have two or more absences compared to teachers in urban and suburban settings for personal illnesses. For personal non-illnesses, teachers in suburban settings were more likely to report two or more absences. Further research is necessary to determine what factors within these areas contribute to absenteeism, such as income and accessibility to school resources. The area where a school is located may be related to many other factors that can affect not only the teachers, but the students as well; transportation, access to resources in order to teach/learn and distance traveled to attend work/school.

School level in Hypothesis 6 was predicted to have an effect on absenteeism levels. This hypothesis was supported only for personal-illness and not for the

personal-non-illness absenteeism. Teachers in the elementary school level were more likely to not miss work due to a personal illness. The teachers in the junior high school position missed two or more days for personal illness and non-personal, but at a lower rate compared to elementary and high school settings. The results of this study suggest that the majority of absenteeism is at the ends of the K-12 spectrum. Perhaps teaching younger children and young adults drive teachers to report higher levels of absenteeism, but this hypothesis needs to be explored in future studies.

In Hypothesis 7, lower school ratings were expected to have an effect on absenteeism. Only personal-illness absenteeism showed significance, suggesting that the better the school rating the less likely the individual would miss a day of work for personal-illness. This finding also shows that teachers in schools with acceptable school ratings and those in low performing schools were more likely to miss two or more days of work due to an illness and a personal non-illness. Teachers in exemplary schools were less likely to miss work at all.

School problems were predicted to influence absenteeism for teachers. Hypothesis 8 stated that school problems would have an effect on absenteeism and this was supported by the results. Conflict and stress within the workplace reduces commitment and lowers the likelihood for a teacher to remain in his/her job (Billingsley & Cross, 1992). Teachers that are exposed to constant problems at work are likely to be discouraged from going to work. A significant difference was found to have an effect on absenteeism for personal-illness, but not for personal-non-illness. Teachers that reported more school problems also reported higher levels of absenteeism, having the biggest differences when they reported to be absent due to a personal illness.

Job involvement and job satisfaction have become more common factors when approaching the problem of absenteeism. High levels of commitment have been shown to lead to a lower likelihood of a teacher missing days at work (Billingsley & Cross, 1992). Hypothesis 8 predicted that low job involvement would have an effect on absenteeism. This hypothesis was supported for personal-illness absenteeism and personal-non-illness absenteeism. Teachers show less absenteeism when they reported being involved in their job for the personal illness condition, and, when the absence was due to a non-personal illness the differences between zero absences, one absence and two or more absences were smaller but still significant.

How satisfied teachers are with their job can be linked to the support one has within the job environment and how much control they feel they have over their environment (Landy & Conte, 2013; Mondal et al., 2011). In Hypothesis 10 and 11, low job control and poor school climate were predicted to be associated with absenteeism. The results showed that the better control teachers have of their environment, the lower the amount of absenteeism was reported. This hypothesis was supported for personalillness absenteeism but not for personal-non-illness, suggesting that perhaps teachers' control of their environment is only an important factor when they have to miss school due to illness.

The presence of Axis I Psychopathology (Depression, Anxiety, Panic, and Somatization) was assessed in its relationship to absenteeism. Based on the results of the current study, depression, anxiety, panic, and somatization disorders were significantly associated with higher rates of absenteeism for personal illness, but not for personal nonillness. There are two recent publications that look specifically at depression and

somatization in teacher populations (Besse et al., 2015; Howard et al., 2017). Depression has been reported in teachers more often than in other occupations (Dworkin et al., 1990; Yang et al., 2009). Hypothesis 13 predicted that major depression would have an effect on absenteeism. Although a great portion of the teachers reported having a depression disorder, the rates of absenteeism were low regardless of the presence of the disorder. Depression in a teacher population has also been associated with several other variables, including job control, satisfaction, and mental and physical health (Besse et al., 2015). Besse et al. (2015) conducted a study on depression in teachers and also found depression to be a key factor in absenteeism, reinforcing the idea of how important is mental health in the work place. Somatization disorder was also analyzed as a factor that could affect absenteeism. Somatization disorder has been linked to higher levels of stress, poorer physical quality of life, major depression, panic and anxiety disorder in teacher populations (Howard et al., 2017). These factors also were found to have an effect in absenteeism in the current study. Somatization disorder was found to have an effect on personal illness absenteeism where teachers reported being more likely to have two or more absences, but not in the non-personal illness absenteeism where the differences were not found to be significant. In Hypothesis 13 it was predicted that higher amounts of perceived stress would have a negative effect on the level of absenteeism. This hypothesis was supported for personal-illness absenteeism but not for personal-non-illness absenteeism. The higher the amount of perceived stress teachers reported, the more likely that the individual would miss work for personal illness.

Perceived stress was predicted to be associated with higher rates of absenteeism for teachers. Prior studies on teacher populations associated stress with age (Mondal et

al., 2011; Trendal, 1989), tenure (Haverman, 2007; Shakrani, 2008; and Shen 1997), and school areas (Haverman, 2007). Additionally, stress has been linked with physical and mental health issues in teacher populations (Dworkin et al., 1990; Yang et al., 2009). The results from the current study found perceived stress to be significantly associated with absenteeism for personal illness.

Physical Quality of Life in Hypothesis 15 was predicted to have a negative relationship with absenteeism. The current study found that the better the quality of physical life, the less likely the individual will miss work. Mental Quality of Life was included in Hypothesis 16 in this study, in which it was predicted to have a negative relationship with absenteeism. The hypothesis was supported for personal-illness but not for personal-non-illness absenteeism so that, the better the quality of physical quality of life the less likely the individual will miss work. Teachers were more likely to have two or more absences if the mental health was poor.

### **Limitations**

There are some limitations to this study. First, only self-reported data was collected. A possible course for future studies is to use self-reported information from participants as well as the records of their employers and compare the two, offering a more accurate description of the causes of absenteeism by using two measurements to verify self-reports in the factors affecting absenteeism. The current study only evaluated teachers in the state of Texas. Future research should also seek to expand to different states in the United States in order to examine differences and similarities that may occur between distinct geographic regions of the country. Another limitation is the skewed ratio of female participants that responded to this study compared to male participants,

although this ratio is not a surprise due to the rate of males/females in the teaching profession in the state of Texas. It would be advisable to continue the collection of data that includes a higher number of male participants in order to properly compare absenteeism based on gender.

The current study evaluated absences for both personal illness and personal non-illness for teacher populations. It is important to note that teachers are provided with limited days off each year. The survey was conducted in February and assessed absenteeism in the past four weeks, following the winter break. It is possible that absences were lower at this time because it followed a two-week break or because the teachers had either already used their allotted days off or were saving their days off for later in the year. Future research should evaluate the rates of absenteeism at differing times during the school year.

In conclusion, the goal of this study was to use a biopsychosocial approach to understanding factors that influence absenteeism in the teaching profession. Although some of these factors identified to be significantly related to absenteeism are fixed, this study suggests that there are occupational and health factors which can be better controlled by improving work conditions. This, in turn, can lead to better mental and physical quality of life and is likely to decrease absenteeism among teachers. Also, exploring what make schools in different areas have different rates of absenteeism (income, access to resources, etc.) could open up more ways to address this problem.

TABLE 1

*Analysis of Demographic Factors*

<b>Evaluating Demographic Indicators Most Associated with Absenteeism in the Teaching Profession for Personal-Illness</b>				
<b>Variables</b>	<b>No Absenteeism (0 absences) N=1396</b>	<b>Absenteeism (1 Absence) N=552</b>	<b>Absenteeism (2 or more) N=354</b>	<b>Statistical Comparison <i>p</i> value Two Tails</b>
<b>Gender %</b>				
Female	22	20	18.3	P= .315
Male	78	79.7	81.5	
<b>Age( in years)</b>				
Mean (St. Dev)	42.4* (11.3)	42.8* (10.9)	44.5** (11.4)	P=.009
<b>Race/Ethnicity %</b>				
White/Caucasian	70.2 8.5	66.4 6.2	61.3 12.1	P=.001
African American	21.4	27.4	26.6	
Hispanic				
<b>Marital Status %</b>				
Single	21.0 65.4	24.5 62.7	26.4 55.4	P<.001
Married	13.2	12.7	18.3	
Other				

TABLE 2

*Analysis of Teacher Indicators*

<b>Evaluating Teacher Indicators Most Associated with Absenteeism in the Teaching Profession for Personal-Illness</b>				
<b>Variables</b>	<b>No Absenteeism (0 absences) N=1396</b>	<b>Absenteeism (1 absence) N=552</b>	<b>Absenteeism (2 or more Absences) N=354</b>	<b>Statistical Comparison <i>P</i> value Two Tails</b>
<b>Years Teaching (In years)</b> Mean (St. Dev)	12.4 (9.2)	13.2 (8.7)	13.2 (8.9)	P=.160
<b>Certificate %</b> Traditional Alternative Other	64 34.1 1.5	64.8 31.3 3.4	57 41.1 1.7	P=.020
<b>Work Hours/Day</b> Mean (St. Dev)	12.03* (3.9)	12.04* (3.9)	12.81** (4.9)	P=.006
<b>Core Classes%</b> Yes No	60 40	60.5 39.5	63 37	P=.575
<b>Area Location %</b> Rural Area Sub-Urban Area Urban Area	10.4 33.3 56.3	12.8 23.5 63.5	6.2 30.2 63.6	P<.001
<b>School Level %</b> Elementary Middle Jr H School High School	43.1 20.3 32.4	40.2 20.1 36.1	37.4 30.4 30.2	P=.006
<b>Current School Rating %</b> Exemplary Recognized Acceptable Low Performing	17 30.8 38.4 13.2	11 38.2 38.2 12.5	10 25.7 41.8 22.5	P<.001

TABLE 3

*Univariate Analysis of Occupational Indicators*

<b>Univariate Analysis Evaluating Occupational Indicators Most Associated with Absenteeism in the Teaching Profession for Personal-Illness</b>				
<b>Variables</b>	<b>No Absenteeism (0 absences) N=1396</b>	<b>Absenteeism (1 or more) N=552</b>	<b>Absenteeism (2 or more Absences) N=354</b>	<b>Statistical Comparison <i>p</i> value Two Tails</b>
<b>Job Involvement:</b> Mean (St. Dev)	53.64* (7.5)	53.6* (7.2)	52.4** (7.3)	P=.027
<b>Job Control:</b> Mean (St. Dev)	17.6* (3.7)	16.9** (3.7)	16.0*** (4.4)	P<.001
<b>School Climate:</b> Mean (St. Dev)	43.6* (8.1)	41.1** (8.1)	39.6*** (8.5)	P=.012
<b>School Problems:</b> Mean (St. Dev)	24.88* (6.3)	26.59** (6.2)	26.93*** (6.4)	P<.001

TABLE 4

*Univariate Analysis of Health Indicators*

<b>Univariate Analysis Evaluating Health Indicators Most Associated with Absenteeism in the Teaching Profession for Personal-Illness Absenteeism</b>				
<b>Variables</b>	<b>No Absenteeism (0 absences)  N=1396</b>	<b>Absenteeism (1 or more)  N=552</b>	<b>Absenteeism (2 or more Absences)  N=354</b>	<b>Statistical Comparison <i>p</i> value Two Tails</b>
<b>Perceived Stress:</b> Mean (St. Dev)	17.54* (7.3)	20.0** (7.1)	20.4* (6.8)	P<.001
<b>SF-36 Mental Quality of Life:</b> Mean (St. Dev)	43.3* (12.6)	39.1** (13.4)	38.5*** (12.7)	P< .001
<b>SF-36 Physical Quality of Life</b> Mean (St. Dev)	52.2* (8.5)	48.9** (9.6)	45.3** (10.0)	P<.001
<b>Major Depression</b> Yes No	23.8 76.2	33.3 66.7	36.3 63.7	P<.001
<b>Anxiety Disorder</b> Yes No	26.6 73.4	40.9 59.1	43 57	P<.001
<b>Panic Disorder</b> Yes No	5.7 94.3	16.4 83.6	16 84	P<.001
<b>Somatization Disorder %</b> Yes No	26.8 73.2	43.3 56.6	51.7 48.3	P<.001

TABLE 5

*Univariate Analysis of Demographic Factors*

<b>Univariate Analysis Evaluating Demographic Indicators Most Associated with Teaching Profession for Non- Illness Absenteeism</b>				
<b>Variables</b>	<b>No Absenteeism (0 absences) N=1510</b>	<b>Absenteeism (1 Absence) N=438</b>	<b>Absenteeism (2 or more) N=357</b>	<b>Statistical Comparison <i>p</i> value Two Tails</b>
<b>Gender</b>				
Female	78.4	77.9	76.8	P=.822
Male	21.6	22.1	23.2	
<b>Age( in years)</b>				
Mean (St. Dev)	42.7 (11.3)	41.6* (11.4)	44.14* (11.97)	P=.006
<b>Race/Ethnicity %</b>				
African American	9.4	7.7	7.3	P=.207
White/Caucasian	69.1	67.0	67.2	
Hispanic	21.6	25.3	25.6	
<b>Marital Status %</b>				
Single	21.8	24.0	16.0	P=.034
Married	63.4	64.7	67.4	
Other	14.8	11.3	16.6	

TABLE 6

*Univariate Analysis of Teacher Indicators*

<b>Univariate Analysis Evaluating Teacher Indicators Most Associated with the Teaching Profession for Non-Illness Absenteeism</b>				
<b>Variables</b>	<b>No Absenteeism (0 absences)  N=1510</b>	<b>Absenteeism (1 absence)  N=438</b>	<b>Absenteeism (2 or more Absences) N=357</b>	<b>Statistical Comparison <i>p</i> value Two Tails</b>
<b>Years Teaching(In years)</b>  Mean (St. Dev)	12.65 (9.27)	12.14 (8.80)	13.54 (9.60)	P=.084
<b>Certificate %</b> Traditional Alternative Other	63.7 34.2 1.5	62.7 34.2 3.1	65.2 32.9 1.7	P=.173
<b>Work Hours/Day</b>  Mean (St. Dev)	7.94 (.82)	7.93 (.92)	7.99 (.82)	P=.596
<b>Core Classes%</b> Yes No	59.5 40.5	60 40	64.4 35.6	P=.230
<b>Area Location %</b> Rural Area Sub-Urban Area Urban Area	11 31.3 57.4	11.2 28.6 60	7.6 38.7 53.7	P=.035
<b>School Level %</b> Elementary Middle Jr H School High School Other	41.5 21.1 34.7 7.1	45.1 18.5 31.3 4.9	37 26.6 31.9 6.6	P=.167
<b>Current School Rating</b> Exemplary Recognized Acceptable Low Performing	15.5 31.9 37.9 14.7	19.2 28.8 37.6 14.4	15.5 30.3 41.9 12.3	P=.444

TABLE 7

*Univariate Analysis of Occupational Indicators*

<b>Univariate Analysis Evaluating Occupational Indicators Most Associated with Teaching Profession for Non-Illness Absenteeism</b>				
<b>Variables</b>	<b>No Absenteeism (0 absences)  N=1510</b>	<b>Absenteeism (1 or more)  N=438</b>	<b>Absenteeism (2 or more Absences) N=357</b>	<b>Statistical Comparison <i>p</i> value Two Tails</b>
<b>Job Involvement:</b> Mean (St. Dev)	54.0* (7.5)	52.0** (7.1)	52.1** (7.6)	P<.001
<b>Job Control:</b> Mean (St. Dev)	17.3 (3.9)	17.7 (3.52)	17.1 (3.6)	P=.108
<b>School Climate:</b> Mean (St. Dev)	43.1* (8.3)	42.4** (7.8)	41.5* (8.4)	P=.005
<b>School Problems:</b> Mean (St. Dev)	25.2 (6.4)	25.3 (6.6)	26.1 (6.5)	P=.070

TABLE 8

*Univariate Analysis of Health Indicators*

<b>Univariate Analysis Evaluating Health Indicators Most Associated with Absenteeism in the Teaching Profession for Non-Illness Absenteeism</b>				
<b>Variables</b>	<b>No Absenteeism (0 absences)  N = 1510</b>	<b>Absenteeism (1 or more)  N =438</b>	<b>Absenteeism (2 or more Absences)  N=354</b>	<b>Statistical Comparison <i>p</i> value Two Tails</b>
<b>Perceived Stress:</b> Mean	18.2 (7.5)	18.5 (6.9)	18.6 (6.9)	P=.545
<b>SF-36 Mental Quality of Life:</b> Mean (St. Dev)	42.1 (13.0)	41.1 (12.8)	41.29 (12.6)	P= .227
<b>SF-36 Physical Quality of Life</b> Mean (St. Dev)	51.6* (8.7)	50.2 ** (9.6)	51.5** (8.9)	P=.028
<b>Major Depression%</b> Yes No	26.9 73.1	22.9 77.1	27.1 72.9	P=.221
<b>Anxiety Disorder%</b> Yes No	30.4 69.6	31 68.1	32.2 67.8	P=.805
<b>Panic Disorder %</b> Yes No	8.3 91.7	7.2 92.8	8.4 91.6	P=.724
<b>Somatization Disorder %</b> Yes No	31.2 68.8	31.6 68.4	31.3 68.7	P=.984

TABLE 9

*Multivariate Analysis of Occupational, Health, and Demographic Indicators*

<b>Multivariate Analysis Evaluating Occupational, Health, and Demographic Indicators Most Associated with absenteeism in Teaching Profession for Personal Illness</b>				
N =2082	B	Wald X <sub>2</sub>	p-value	95% CI
<u>Demographic Factors</u>				
Age	.010	5.51	.019	[.002, .019 ]
<b>Race/Ethnicity</b> (Ref: White/Caucasian)				
African American	-.226	3.90	.048	[-.659, .134]
Hispanic	-.263	1.68	.194	[-.659, .134]
<b>Marital Status</b> (Ref: Single)				
Single		11.79	.019	
Married	-.614	2.67	.102	[-1.34, .121]
Separated	-.248	2.48	.115	[-.556, .060]
Divorced	-.197	.2.99	.585	[.510, .299]
Widowed	-.355	10.99	.001	[-.542, -.069]
<u>Health Factors</u>				
Perceived Stress	-.003	.050	.823	[-.025, .020]
Sf-36 Physical Quality of Life	-.042	54.52	.000	[-.053, -.031]
Sf-36 Mental Quality of Life	-.017	6.62 .00	.010	[-.030, -.004]
Major Depression	.001	2.74	.994	[-.249, .250]
Panic Disorder	.274	3.32	.097	[-.050, .598]
Somatization Disorder	.224		.068	[-.017, .464]

<b>Multivariate Analysis Evaluating Occupational, Health, and Demographic Indicators Most Associated with absenteeism in Teaching Profession for Personal Illness</b>				
<b>N =2082</b>	<b>B</b>	<b>Wald <math>\chi^2</math></b>	<b>p-value</b>	<b>95% CI</b>
<u>Occupational Teacher Factors</u>				
<b>Certificate</b>				
<b>Work Hours/Day</b>	-0.008	.501	.478	[-.031, .015]
<b>Area Location</b>				
(Ref: Sub-Urban Area)		8.94	.030	
Urban Area	-.643	8.06	.005	[-1.08, -1.99]
Rural Area	.013	.012	.911	[-.209, .234]
<b>School Level</b>				
(Ref: High School)		5.04	.080	
Elementary	-.278	4.62	.031	[-.531, -.025]
Middle Jr High School	-.073	.295	.587	[-.337, .191]
<b>Current School Rating</b>				
(Ref: Low Performing)		1.75	.624	
Exemplary	.005	.001	.981	[-.433, .444]
Recognized	.157	.874	.350	[-.172, .486]
Acceptable	.151	.948	.330	[.153, .456]
<b>Job Involvement</b>				
<b>Job Control</b>	-.010	1.97	.160	[-.024, .004]
<b>School Climate</b>	-.025	3.02	.082	[-.054, .003]
<b>School Problems</b>	-.007	.646	.421	[-.024, -.010]
	-.001	.015	.904	[-.023, .020]
Constant	3.74	10.53	.001	[1.48, 6.01]

TABLE 10

*Multivariate Analysis of Occupational, Health, and Demographic Indicators*

<b>Multivariate Analysis Evaluating Occupational, Health, and Demographic Indicators Most Associated with absenteeism in the Teaching Profession for NonPersonal Illness</b>				
N =2082	B	Wald X <sub>2</sub>	p-value	95% CI
<u>Demographic Factors</u>				
<b>Age Marital Status</b>	.012	11.64	.493	[.005, .018]
<u>Health Factors</u>				
<b>Sf-36 Physical Quality of Life</b>	.003	3.29	.070	[-.005, .011]
<u>Occupational Teacher Factors</u>				
<b>Job Involvement</b>	-.022	19.59	.000	[-.017, .001]
<b>School Climate</b>	-.008	.471	.070	[-.005, .011]
<b>Area Location</b> (Ref: Sub-Urban Area)				
Urban Area	-.064	.209	.647	[-.339, .211]
Rural Area	.155	3.93	.047	[.002, .308]
Constant	-.288	.280	.597	[-3.398, .907]

TABLE 11

*Frequency Distribution of Demographics*

Variables	Frequency	Percentage
<b>Gender</b>	Female	2543
	Male	716
<b>Race/Ethnicity</b>	White/Caucasian	2148
	African American	287
	Hispanic	703
	Other	121

## APPENDIX SECTION

### APPENDIX A

#### *Organizational Commitment*

Directions: Answer on a continuum to what extent do you agree with each of the following statements.

Agree is defined as: Strongly Disagree, Somewhat Disagree, Somewhat Agree, Strongly Agree

1. The stress and disappointments involved in teaching at this school aren't really worth it.
2. The teachers at this school like being here; I would describe us as a satisfied group.
3. I like the way things are run at this school.
4. If I could get a higher paying job I'd leave teaching as soon as possible.
5. I think about transferring to another school.
6. I don't seem to have as much enthusiasm now as I did when I began teaching.
7. I think about staying home from school because I'm just too tired to go.

## APPENDIX B

### *Job Involvement Survey*

Directions: Indicate on a continuum to what extent do you agree with each of the following statements.

Agreement defined as: Strongly Disagree, Disagree, Agree, Strongly Agree

1. I'll stay overtime to finish a job, even if I'm not paid for it.
2. You can measure a person pretty well by how good a job he does.
3. The major satisfaction in my life comes from my job.
4. For me, mornings at work really fly by.
5. I usually show up for work a little early, to get things ready.
6. The most important things that happen to me involve my work.
7. Sometimes I lie awake at night thinking ahead to the next day's work.
8. I'm really a perfectionist about my work.
9. I feel depressed when I fail at something connected with my job.
10. I have other activities more important than my work.
11. I live, eat, and breathe my job.
12. I would probably keep working even if I didn't need the money.
13. Quite often I feel like staying home from work instead of coming in.
14. To me, my work is only a small part of who I am.
15. I am very much involved personally in my work.
16. I avoid taking on extra duties and responsibilities in my work.

17. I used to be more ambitious about my work than I am now.
18. Most things in life are more important than work.
19. I used to care more about my work, but now other things are more important to me.
20. Sometimes I'd like to kick myself for the mistakes I make in my work.

## APPENDIX C

### *Satisfaction of Support*

Directions: Indicate Rate your level of satisfaction of support you receive 10 point sliding scale.

Satisfaction defined as: Dissatisfied (0-2), Somewhat Dissatisfied (2-4), Neutral (4-6)

Somewhat Satisfied (6-8); Satisfied (8-10)

1. Support from District Administrative
2. Support from Community
3. Support from Legislators, Support from Principle
4. Support from Assistant Principle/Dean
5. Support from Counselors
6. Support from Special Education Services
7. Support from Grade-level teachers
8. Support from Subject-level teachers
9. Support from Parents
10. Support from Students

## APPENDIX D

### *Control in the Classroom*

Directions: On a 4-point scale, indicate how much actual control you have in planning and teaching in your current classroom?

Control defined as: No Control, Minor Control, Moderate Control, and Great Deal of Control

1. Selecting textbooks and other instructional material
2. Selecting content, topics, and skills to be taught.
3. Selecting teaching techniques
4. Evaluating and grading students
5. Disciplining students
6. Determining the amount of homework to be assigned

## APPENDIX E

### School Climate

Directions: Indicate on a continuum of agreement to what extent do you agree with the following statements.

Agreement defined as: Strongly Disagree, Somewhat Disagree, Somewhat Agree, Strongly Agree

1. The school administration's behavior toward the staff is supportive and encouraging.
2. I am satisfied with my teaching salary.
3. The level of student misbehavior in this school (such as noise, horseplay or fighting in the halls, cafeteria, or student lounge) interferes with my teaching.
4. I receive a great deal of support from parents for the work I do.
5. Necessary materials such as textbooks, supplies, and copy machines are available as needed by the staff.
6. Routine duties and paperwork interfere with my job of teaching.
7. My principal enforces school rules for student conduct and backs me up when I need it.
8. Teachers in this school consistently enforce rules for student behavior, even for students who are not in their classes.
9. Most of my colleagues share my beliefs and values about what the central mission of the school should be.
10. The principal knows what kind of school he or she wants and has communicated to the staff.

11. There is a great deal of cooperative effort among the staff members.
12. In this school, staff members are recognized for a job well done.
13. I worry about the security of my job because of the performance of my students on state and/or local tests.
14. State or district content standards have had a positive influence on my satisfaction with teaching.
15. I am given the support I need to teach students with special needs.
16. The amount of student tardiness and class cutting in this school interferes with my teaching.
17. I am generally satisfied with being a teacher at this school.

## APPENDIX F

### *School Climate Problems*

Directions: Indicate to what extent each of the following is a problem in your current school?

Strength of problem defined as: Serious Problem, Moderate Problem, Minor Problem, Not a Problem

1. Student tardiness
2. Student absenteeism
3. Student class cutting
4. Teacher absenteeism
5. Students dropping out
6. Student apathy
7. Lack of parent involvement
8. Poverty
9. Students come to school unprepared to learn
10. Poor student health

## APPENDIX G

### *Perceived Stress Scale*

Directions: Indicate how often you have experienced these events in the last month.

Often is defined as: Never, Almost Never, Sometimes, Fairly Often, Very Often

1. Been upset because of something that happened unexpectedly.
2. Felt that you were unable to control the important things in your life.
3. Felt nervous and "stressed".
4. Felt confident about your ability to handle your personal problems.
5. Felt that things were going your way.
6. Found that you could not cope with all the things that you had to do.
7. Been able to control irritations in your life.
8. Felt that you were on top of things.
9. Been angered because of things that were outside of your control.
10. Felt difficulties were piling up so high that you could not overcome them.

## APPENDIX H

### *Mental and Physical Quality of Life Scale*

#### Short Form (36) Health Inventory

Directions: Circle the response to the following questions.

1. In general, would you say your health is
  - a. Excellent
  - b. Very Good
  - c. Good
  - d. Fair
  - e. Poor
  
2. Compared to one year ago, how would you rate your health in general now?
  - a. Much better now than one year ago.
  - b. Somewhat better now than one year ago.
  - c. About the same as one year ago.
  - d. Somewhat worse than one year ago
  - e. Much worse than one year ago.

Directions: Indicated if your current health limits you in the following activities that might occur during a typical day.

Limited indicated as: Yes, Limited a lot, Yes, Limited a Little, No, Not Limited at All

3. Vigorous activities, such as running, lifting heavy objects, participating in strenuous sports

4. Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf
5. Lifting or carrying groceries
6. Climbing several flights of stairs
7. Climbing one flight of stairs
8. Bending, kneeling or stooping
9. Walking more than a mile
10. Walking several blocks
11. Walking one block
12. Bathing or dressing yourself

Directions: Answer YES or NO to the following questions addressing your activity.

13. During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of your PHYSICAL HEALTH?
  - a. Cut down on the amount of time you spent on work or other activities
  - b. Accomplished less than you would like
  - c. Were limited in the kind of work or other activities
  - d. Had difficulty performing the work or other activities (for example, it took extra effort)
14. During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any EMOTIONAL PROBLEMS (such as feeling depressed or anxious)?
  - a. Cut down on the amount of time you spent on work or other activities

- b. Accomplished less than you would like
  - c. Were limited in the kind of work or other activities
- Directions:

Circle your response to the following questions:

15. During the past 4 weeks, to what extent has your physical health or emotional problems interfered with your normal social activities with family, friends, neighbors, or groups? a. Not at All

- b. Slightly
- c. Moderately
- d. Quite a Bit
- e. Extremely

16. How much bodily pain have you had during the past 4 weeks?

- a. None
- b. Very Mild
- c. Mild
- d. Moderate
- e. Severe
- f. Very Severe

17. During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)?

- a. Not at All
- b. A Little Bit
- c. Moderately
- d. Quite a Bit

e. Extremely

18. During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting with friends, relatives, etc.)? a. All of the Time
- b. Most of the Time
- c. Some of the Time
- d. A Little of the Time
- e. None of the Time

Directions: Indicate how often during the past 4 weeks have you experience or felt these items. Often defined in terms of time: All of the Time, Most of the Time, A Good Bit of the Time, Some of the Time, A Little of the Time, None of the Time

19. Did you feel full of pep?
20. Have you been a very nervous person?
21. Have you felt so down in the dumps that nothing could cheer you up?
22. Have you felt calm and peaceful?
23. Did you have a lot of energy?
24. Have you felt downhearted and blue?
25. Did you feel worn out?
26. Have you been a happy person?
27. Did you feel tired?

Directions indicate how true or false the following statements are in relation to you.

Truth defined as: Definitely True, Mostly True, Don't Know, Mostly False, and  
Definitely False

28. I seem to get sick a little easier than other people

29. I am as healthy as anybody I know

30. I expect my health to get worse

31. My health is excellent

## APPENDIX J

### *Patient Health Questionnaire: Major Depression Disorder*

Directions: Indicate how often you have experienced the following problems in the last two weeks.

Often is described in terms of days: Not at all, Several days, More than half the days,

Nearly every day

1. Little interest or pleasure in doing things
2. Feeling down, depressed, or hopeless
3. Trouble falling or staying asleep, or sleeping too much
4. Feeling tired or having little energy
5. Poor appetite or overeating
6. Feeling bad about yourself, or that you are a failure, or have let yourself or your family down
7. Trouble concentrating on things, such as reading the newspaper or watching television
8. Moving or speaking so slowly that other people could have noticed? Or the opposite - being so fidgety or restless that you have been moving around a lot more than usual
9. Thoughts that you would be better off dead or of hurting yourself in some way

## APPENDIX K

### *Patient Health Questionnaire: Anxiety Disorder*

Directions: Indicate how often you have experience the following problems over the last

4 weeks.

Often defined in terms of days: Not at all, Several days, More than Half the Days

1. Feeling nervous, anxious, on edge, or worrying a lot about different things
2. Feeling restless so that it is hard to sit still
3. Getting tired very easily
4. Muscle tension, aches, or soreness
5. Trouble falling asleep or staying asleep
6. Trouble concentrating on things, such as reading a book or watching TV
7. Becoming easily annoyed or irritable

## APPENDIX L

### *Patient Health Questionnaire: Somatization Disorder*

Directions: Indicate how bothersome the following problems have been in the last 4 weeks.

Bothered defined as: Not bothered, Bothered a little, Bothered a lot

1. Stomach pain
2. Back pain
3. Pain in your arms, legs, or joints (knees, hips, etc.)
4. Menstrual cramps or other problems with your periods
5. Pain or problems during sexual intercourse
6. Headaches
7. Chest pain
8. Dizziness
9. Fainting spells
10. Feeling your heart pound or race
11. Shortness of breath
12. Constipation, loose bowels, or diarrhea
13. Nausea, gas, or indigestion

## APPENDIX M

### *Patient Health Questionnaire: Panic Disorder Scale*

Directions: Answer Yes or No to the following questions.

1. In the last 4 weeks, have you had an anxiety attack; suddenly feeling fear or panic? Yes/No
  - a. If yes, has this ever happened before?
  - b. If yes, do some of these attacks come suddenly out of the blue, that is, in situations where you don't expect to be nervous or uncomfortable?
  - c. If yes, do these attacks bother you a lot or are you worried about having another attack?
  - d. If no, please move to next survey.

Directions: Answer Yes or No to the following questions about your last bad anxiety attack:

2. Were you short of breath?
3. Did your heart race, pound, or skip?
4. Did you have chest pain or pressure?
5. Did you sweat?
6. Did you feel as if you were choking?
7. Did you have hot flashes or chills?
8. Did you feel dizzy, unsteady, or faint?
9. Did you have tingling or numbness in parts of your body?
10. Did you tremble or shake?

11. Were you afraid you were dying?

## APPENDIX N

### *Health History Questionnaire*

Directions: Circle the problems or conditions you are currently experiencing.

#### 2. General Health

- a. Epilepsy
- b. Diabetes
- c. Stroke Liver disease
- d. Thyroid problems
- e. Multiple Sclerosis
- f. Kidney/bladder problems
- g. Cancer, please specify:

#### 3. Mental Health

- a. Fatigue Anxiety
- b. Changes in appetite
- c. Eating disorder
- d. Depression

#### 4. Allergy

- a. Drug allergies
- b. Hay fever
- c. Food allergies
- d. Skin rashes

#### 5. Ears, Nose, Mouth, Throat

- a. Earaches Ringing in ears

- b. Of hearing/deafness
- c. Grind teeth while asleep Sinus infection
- d. Clench jaw while asleep

6. Eyes

- a. Blurred vision
- b. Loss of vision
- c. Double vision

7. Gastrointestinal

- a. Heartburn
- b. Ulcer
- c. Stomach or abdominal pain
- d. Nausea/Vomiting
- e. Persistent diarrhea
- f. Gall bladder condition
- g. Persistent constipation

8. Heart and Lungs

- a. Pain in chest
- b. High cholesterol
- c. High blood pressure
- d. Irregular heart beat
- e. Low blood pressure

8. Muscles, Joints, Bones

- a. Arthritis

- b. Osteoarthritis
- c. Back pain

9. Muscle pain or tenderness

- a. Joint pain
- b. Tingling extremities
- c. Joint stiffness or swelling
- d. Fibromyalgia
- e. Neck pain
  
- f. Difficulty walking

10. Neurological

- a. Balance trouble
- b. Light-headed or dizziness
- c. Headaches (non-migraine)
- d. Memory loss
- e. Migraines

11. Pulmonary

- a. Asthma
- b. Shortness of breath
- c. Chronic or frequent cough

Tightness in chest

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