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Stressors on the detectives of the Prince William County Police Department

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Abstract

Law enforcement is a highly stressful occupation, with law enforcement officials facing critical incidents such as violent crime scenes and potential loss of life. These incidents, however, are not a daily occurrence. The most common daily stressors associated with law enforcement originate from the law enforcement organization itself, the daily interactions with coworkers, the usage or misusage of the assigned equipment, and the individual's perception of the work environment. This study collected survey data to analyze the prevalence and effects of the daily stressors perceived by the detectives of the Prince William County Police Department. This study identified three areas that required improvement in the work environment and provides the following recommendations; department should develop an ergonomics program, as well as, a procedure for the purchase of equipment, and a formal recognition program.

I certify that I have read this thesis and find that, in scope and quality, it satisfies the requirements for the degree of Master of Science.

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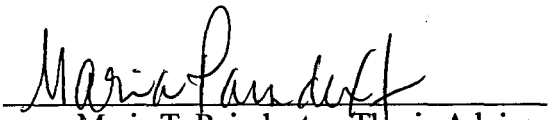

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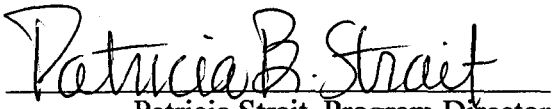

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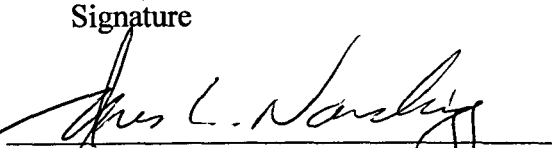

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STRESSORS ON THE DETECTIVES OF THE PRINCE WILLIAM COUNTY POLICE DEPARTMENT

By

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CHAPTER ONE

Introduction

Rationale for Selection

The topic of my research is the influences of stress on individual detectives' perceived job performance. Law enforcement is recognized as a highly stressful profession where individuals are often called upon to perform at a level that often exceeds their capabilities which a causes stress reaction (Sewell, 2006; Gove, 2005; Johnson et al., 2005; Toch, 2002; Graves, 1996; Boyd, 1994). This stress can negatively affect the law enforcement organization and the individual law enforcement officer, causing serious physical ailments such as hypertension and heart disease (Johnson et al.; Boyd).

Much of the stress experienced by an individual law enforcement officer is the result of the law enforcement organization itself (Toch; Ginsburg, 1990); these stressors are the result of the perceived interactions of workgroups, the policies and procedures of an organization, and a formalized chain of command (Oliveira, 2005; Cooper-Thomas & Anderson, 2002; Jex, 2002; Reiter, 1999; Bruening, 1996; Leavitt, 1993).

I have been assigned as a detective in the Criminal Investigations Division of the Prince William County Police Department for four years of my nine-year career in law enforcement. During that nine-year period, I have observed changes in departmental policies, the departmentally issued equipment, as well as changes to my individual work environment that were perceived as influential on my job performance and on some occasions as stressful. Therefore, I wanted to examine my colleagues' perceptions of their

job performance in relation to the stressors of working as a detective in the Criminal Investigations Division; the question began to arise as whether this was a mutually shared experience with my colleagues or merely my individual interpretation and perceptions.

Significance of the Topic

The Prince William County Police Department self evaluates annually and gauges the organization's successful performance by the number of criminal cases cleared in ratio to the number of criminal incidents reported to the police department (PWCPD, 2006). The majority of criminal incidents reported to the Prince William County Police Department are investigated by and the responsibility of the members of the Criminal Investigations Division (PWCPD General Orders). Therefore, the job performance of the individual members assigned to the Criminal Investigations Division is highly influential to the overall successful performance of the Prince William County Police Department.

The Department strives to obtain the highest levels of performance from individual members and therefore the department should realize the impact that stressors from the physical work environment, assigned equipment, social interactions, organizational policies and procedures have on the ability of individuals to improve their job performance.

Delimitations

It is the intent of my research on job performance and job satisfaction in relation to the perceived workplace stressors, ergonomic stressors, and social interactions stressors, to provide recommendations to the Prince William County Police Department

that will result in higher job performance and job satisfaction among the detectives assigned to the Criminal Investigations Division.

I plan to focus my investigation specifically on the personnel assigned to the Criminal Investigation Division, their perceptions of the effects of common workplace stressors, police specific stressors, the effects of ergonomic design, influences of work-related injuries, and organizational social interactions. In my research, I hope to discover ways to target areas of stress within the Criminal Investigations Division and develop programs and processes to reduce or eliminate the root causes of stress for detectives.

Client

The Prince William County Police Department was established on July 1, 1970. Currently the Department consists of an approximately four hundred and ninety sworn police force that services a Washington, D.C. suburban community. The county of Prince William has a population of approximately three hundred and fifty eight thousand citizens (PWCPD, 2006). The Department is comprised of three divisions; they are the Administrative Division, the Criminal Investigative Division, and the Operations Division. The Administrative Division is responsible for the Personnel Bureau, the training programs of the Criminal Justice Academy, and other administrative functions. Criminal Investigations is responsible for all long term or specialized investigations. The Operations Division is responsible for the traffic enforcement and standard patrol functions of the Department.

The target population of this study is the Criminal Investigations Division, which is comprised of several units that investigate specific crimes, the Violent Crimes Unit, the Crimes Against Children Unit, the Burglary Unit, the Major Crimes Unit, the Special Investigations Unit, the Special Problems Unit, the Street Crimes Unit, and the Gang Investigations Unit. These units have similar structures of command, inhabit government owned buildings, and are assigned similar equipment to perform their respective jobs.

It is the desire of the author that the Chief of Police, Commander of the Criminal Investigations Division and the Senior Command Staff review the results of this study of the perceptions of the detectives. It is desirable that through critical analysis of the data, issues related to the perception of stressors that are negatively affecting the job performance of the detectives will become evident to executive management of the Prince William County Police Department. With these issues to their attention, it desirable that the Police Department will strongly consider my recommendations that can improve the job performance of the detectives assigned to the Criminal Investigation Division.

CHAPTER TWO

Research of the Literature

Job Performance

Many practitioners of organizational psychology interpret the concept of job performance in a variety of ways and definitions. For the purposes of this work, job performance is all the productive behaviors that occur while an employee is engaged in the work environment, which contributes to the goals and objectives of an organization (Jex, 2002). One of the factors that have influence on the job performance of an individual is the ergonomic elements of the organization, such as the design and quality of the assigned equipment, as well as the layout of an individual's workplace (Anshel, 2006; Baron, Vander Spek, & Young, 2006; Kincaid, 2005, 2004; Sarkus, 2001; Rowh, 1999; Leavitt, 1993). Another factor that influences the performance of the individual is the organization itself; that is to say that job performance cannot be separated from the individual's involvement in the groups that comprise the organization, the interactions within groups, the interactions between the groups within the organization, the policies and procedures that control the actions of the individual, as well as the culture of an organization (Milbourn Jr., 2006; Sewell, 2006; Chen & Silverthorne, 2005; Kahn, 2003; Conner & Douglas, 2005; Poon, 2004; Raitano & Kleiner, 2004; Toch, 2002; Reiter, 1999; Boyd, 1994; Sargent & Terry, 1998; Ginsburg, 1990). In the field of organizational psychology each of these factors are stressors on the individual employee (Chen & Silverthorne, 2005; Poon, 2004; Toch, 2002; Miles, 2000; Sargent & Terry, 1998; Allie, 1994;Boyd, 1994; Leavitt, 1993; Ginsburg, 1990).

In organizational psychology, job performance is distinguished from other elemental categories that are often confused to be synonymous in the lay world; these include effectiveness, productivity, and utility (Jex, 2002, pp. 88-90). Jex (2002) defines effectiveness as the evaluation of the results of an employee's job performance. In the law enforcement profession, it is widely recognized that the performance evaluations conducted by the organization are a necessity to provide measurement of the individual law enforcement officer's competence in performing their job (Sewell, 2006). Employee competence is a critical concern for any organization, both in the private industry sector as well as law enforcement, and must be measured as well as evaluated; competence is a component of employee satisfaction, which is directly linked to the reduction of the huge costs associated with employee turnover and absenteeism (Kauffeld, 2006; Eby, Freeman, & Lance, 1999). In relation to the organizational efforts to improve the employee's job performance, there must be clear communication of organizational targets, to remove all uncertainties from the employee, and proper feedback concerning the employee's success or failure (Robertson & Maynard, 2005; Hong, Nahm, & Doll, 2004).

According to Jex (2002) productivity is the organization's measurement of the return on investment (ROI) for the actions or in actions of an employee in order to achieve job performance and effectiveness; while utility represents the value given by the organization to the level of performance, the effectiveness of the employee, or productivity of the employee. Many factors influence employee's level of productivity, as a result of my research it has been determined that the main influence on an employee's

productivity is the employee's perceived level of stress; these stressors consist of the physical work environment, the organizational culture, and the day-to-day employee interactions with other workers (Anshel, 2006; Edelman, 2006; Toch, 2002). Reductions in individual productivity are critical concerns for the management and leadership of any organization, be they public sector or private sector, because of the huge costs associated with low levels of productivity (Eby et al., 1999; Leavitt, 1993). As previously stated, stress related problems manifest themselves to the organization in several forms such as work sloppiness, job tardiness, work quality, and attendance (Oliveira, 2005; Toch, 2002).

In organizational psychology, there are three variables that stand out as predictors of performance regardless as to the nature and complexity of the job; these variables consist of the individual's general cognitive ability, their level of job experience, and their distinct personality traits (Jex, 2002, pp. 114). General cognitive ability is an individual's capacity to process and comprehend information; high levels of general cognitive ability are good indicators of an individual's ability to perform complex jobs, in team or group settings an employees with high levels of general cognitive ability can serve as conduits for effective team functioning (Chowdhury, 2005;Ellis, Bell, Ployhart, & Hollenbeck, 2005; Jex, pp. 97). Previous job experience is a static variable of the equation, employees possess the skills necessary to perform the current job task or they do not. A third variable, personality traits, require the organization to make certain informed assessments about individuals. Organizations will seek out people with specific perceived personality traits, that are deemed desirable to the organization, and then the

organization holds them accountable to utilize their perceived personality traits and apply them to their job performance (Hochwarter, Perrewe, Hall, & Ferris, 2005).

According to Boyd (1994), there are three distinct police personality traits are prevalent throughout the profession of law enforcement, those traits are work commitment, work mastery, and work opportunity. Boyd (1994) refers to the category of work commitment as the personality trait an individual displays when the officer feels an obligation to perform high quality work within the organization. Boyd (1994) further describes the category of work mastery as a personality trait and officer displays when they have achieved a certain a level of competence and their duties, they seek out and create new and unique solutions for the routine problems they encounter on a daily basis. Boyd's (1994) final category, work opportunities, is the personality trait of an officer who, when they have successfully dealt with a problem that they have encountered, these officers utilize the experience to develop new means and opportunities for their enhancement.

Job Satisfaction

Organizations examine and evaluate the individual's job performance, their effectiveness, their productivity, and their utility, as well as in individual's general cognitive ability, level of job experience and their personality traits to determine whether an employee is a proper fit to the overall goals of the organization. However, the individual is also examining and evaluating the organization throughout the entire process as well. The individual's evaluation of the organization, known in the study of organizational psychology, is job satisfaction.

Although there are varied definitions for job satisfaction throughout the field of organizational psychology; this study defines job satisfaction as the emotional state and perceptions held by an individual employee in context as to, how they perceive their workspace and equipment, their own job or how their job interacts with the rest of the organization (Rico & Cohen, 2005;Carless, 2004; Jex, 2002, pp.142; Eby et al., 1999; Wong, Hui, & Law, 1998).

As employees evaluate the organization and develop their level of job satisfaction, another component of organizational psychology begins to manifest in the individual and the organization; this component is known as organizational commitment, which is an individual's feelings of loyalty and belonging to an organization, as well as a feeling of motivation and satisfaction derived from the organization (Poon, 2004; Jex, 2002). When individuals develop high levels of organizational commitment, there is evidence to support that this is not the result of a one way transaction; rather it is a result of the individual also perceiving a high level of commitment from the organization (Bishop, Scott, Goldsby, & Cropanzano, 2005). An ideal organizational setting occurs when each individual member is seen by the organization as a means of monitoring the overall context of the organization, this feedback should be excepted without filter in order to ensure the best performance within the organization can be achieved (Obholzer, 2005).

Organizational psychology suggests that when organizations rely on an overly bureaucratic system as the foundation of the organizational culture development, the organization will prevent some individuals from providing their managers and leaders with keen assessments as to the state or future state of the organization. (Kahn, 2003) It

has been the professional experience of this author, that the model for law enforcement organizations is based in a paramilitary fashion; law enforcement organizations are bureaucratic by design, these organizations have a well-defined chain of command as well as an official channels of communication between the levels of the organization. Historically, this has been the organizational structure for most law enforcement organizations (Sewell, 2006; Reiter, 1999). There is a potential pending change to the organizational structure of law enforcement; American law enforcement entry-level personnel are becoming increasingly more educated when compared to their historical predecessors (Sewell, 2006; Reiter, 1999). Law enforcement organizations must prepare themselves for the exposure to the ideas of a more educated workforce, who expect to be more involved in decisions about their day-to-day work environment (Sewell, 2006).

Organizations should learn to trust their educated and often innovative police officers to make the best decisions and afford them the opportunity for the individual to take greater responsibilities, which can result in a greater sense of ownership in the organization as well as a greater commitment to the organization; as a result of the sense of ownership and greater commitment by the individual, the organization will be rewarded with higher levels of performance (Bishop et al., 2005; Poon, 2004; Reiter).

Stress

The second part of my research was the broad topic of stress. In the field of psychology, many practitioners refer to the works of Hans Selye as the first true investigation into the concept of stress (Jex, 2002, pp.180; Toch, 2002, pp.1; Miles, 2000, pp. 14). One of the basic concepts of Selye's work in the field of stress is the distinction

between positive and negative stress. Positive stress, also known as eustress, is a stress phenomena that is related to the fulfillment or achievement that occurs when individuals perceived abilities exceeds the demands presented to them; negative stress, also known as distress, is a stress phenomena that is related to the perception of an individual that precedes that the current task demand exceeds the level of their capabilities (Gove, 2005; Miles). Although psychology considers the work of Selye as the start point of stress research, many other psychologists and sociologists have added to the collective definition of the phenomenon known as stress. In Boyd's (1994) work on police stress, stress is the body's nonspecific response to any demand placed on it and furthermore stated, that it was immaterial as to whether the stress was the result of an individual action or the situation presented to an individual. Boyd (1994) theorized that it was irrelevant if the individual perceived the demands placed them as pleasant or unpleasant. Another study of stress in law enforcement, conducted by Toch (2002), defined stress as a transactional contract wherein individual perceives a link between the job process and the everyday features of the human environment.

Other definitions exist in the theoretical realms of psychology and sociology; however, for the purposes of this work, this study has developed a contextual definition of stress. Stress is an individual's emotional, psychological, physiological response to an exposure to a tangible or intangible event or series of events perceived to exceed the capabilities of the individual to cope (Sewell, 2006; Gove, 2005; Raitano & Kleiner, 2004; Sewell, 2002; Miles, 2000; Boyd, 1994; Fernberg, 1994).

In the study of stress, the stress phenomenon is much like a mathematical equation; stress is the sum of the individual and the independent variable known as a stressor. Stressors are commonly defined as an antecedent condition within the organization or within the moment, which lead to the individual's experience of adverse reaction and a necessity to adaptively respond (Conner & Douglas, 2005; Barsky, Thoresen, Warren, & Kaplan, 2004; Jex, 2002). In the work environment, a common reaction to stress is that the individual feels compelled to work harder and faster, the result for the organization can actually be detrimental; this reaction does not correlate the speed and intensity of the stress reaction into a higher quality of work performed (Wojcik, 2005).

Common Workplace Stressors

In the field of organizational psychology, the research reveals of the most commonly recognized workplace stressors include the concepts of role ambiguity, role conflict, workload, interpersonal conflict, organizational constraints, and individual's perceived control.

Role ambiguity, in its simplest form, is a state in which an employee is unsure of what they are supposed to do within the organization (Conner & Douglas, 2005;Jex, 2002). In order to combat role ambiguity organizations, should establish and communicate clear organizational expectations of the individual; which should remove any uncertainties that an individual may have about how they are to perform and interact within the organization (Chowdhury, 2005; Hong et al., 2004).

In order to deal with the problems of role ambiguity, organizations should use several combinations of socialization tactics to enable individuals to quickly master their new roles within the organization; socialization involves a exchange of knowledge between individuals, this exchange can occur within informal settings or in informal settings (Chowdhury, 2005). Intensive socialization facilitates an individual to learn the organizational expectations of them while developing a sense of shared values, perceptions, and mental models of the organization, which leads to positive attitudes displayed by the individual (Cooper-Thomas & Anderson, 2002).

Role conflict occurs when the organization places too high of a burden of demand on the employee then can accomplish at any given time (Conner & Douglas, 2005; Jex, 2002). Sargent & Terry (1998) theorized the effects of role conflict originate from the demands placed on individual by the organization could lead to an individual perceiving them self is underutilized; as a result the individual's perception would prove costly to both the organization and the individual, and that job productivity will surely decline.

Workload is defined by Jex (2002) as the amount of work that an employee must complete in the confines of a finite period; an individual's perception of workload can be perceived to be so strenuous that it has an adverse effect upon their occupational health as well as their individual health (Bruening, 1996).

In order to combat an individual's negative perception of workload an organization should have a system to monitor and coach individuals through the work process. When an organization lacks the means to convey and monitor the process of employees work, employees lose their awareness of the workload and their commitments;

which has the potential to cause individuals to over commit themselves and thereby forming levels of stress that are detrimental both to the employee and the organization (Lu, Watson-Manheim, Chudoba, & Wynn, 2006). As previously stated, this over commitment is detrimental to both the employee and the organization; an individual is under stress may perceive themselves to be working faster and harder, they are not necessarily performing better (Wojcik, 2005).

Jex (2002) defines interpersonal conflict as all negatively charged interactions with other individuals within the organization; these negative interactions can range from minor disagreements over non-work related issues and can escalate, in extreme cases, to excessive physical violence (pp.192).

Conflict within an organization, if managed properly and never escalating beyond professional differences, can be helpful within the organization; conflict is a common outcome when individuals interact with members of a different group (Mohammed & Angell, 2004). The traditional team model assumes that all individuals within a certain workgroup will operate under a system of equality (Barner, 2006).

Organizations, including law enforcement, rely on various kinds of work groups to perform a multitude of services both externally and internally to the needs of the organization; it is critical that organizations recognize that merely placing individuals together in declaring them in team does not mean that the group can positively function together or that they will be capable of producing viable products or services (Pyöriä, 2005; Cummings, 2004). Organizations should understand that although organizations utilize teams to perform certain tasks within the organization they need to make informed

and well thought out decisions about individual recruitment and post hiring placement (Cummings).

"Organizations do not hire teams, they hire individuals and place them in teams" (Morgeson, Reider, & Campion, 2005, pp.585). Organizations that ignore this concept , run the risk of having individuals or entire groups of individuals develop barriers, which are referred to in organizational psychology as "silos" which causes people within the organization who are intended to work together for the benefit of the organization to develop distrust, confusion, and even animosity towards each other (Lencioni, 2006; Schütz & Bloch, 2006).

Organizations should engage in preventative measures to reduce the risk that interpersonal conflict can rise to the level of "silos", these preventative measures include communication, trust and social competence. Those preventative measures are directly linked to the development of high-performance work groups in an organization; they impart the necessary skills for an individual to successfully manage conflicts, coordinate their work, and develop a collaborative interdependence with others (Lu et al., 2006; Morgeson et al., 2005).

Organizations should consider training programs for the development of communication and cooperation skills; through mastery of those basic social skills, individuals could then more readily accept training in the more complex skills of planning, task coordination and collaborative problem solving (Kauffeld, 2006; Lu et al., 2006; Ellis et al., 2005; Morgeson et al., 2005).

Jex (2002) describes organizational constraints as another common workplace stressor; he classified them into eleven separate categories: job-related information, organizational budgetary support, organizational required support, time and materials, the required services and help of others, task planning and preparation, time availability, the work environment, scheduling of activities, transportation, and job-related authority (pp. 194). Like most American organizations, law enforcement organizations use the classic models of bureaucratic design, with most of the organization's power and control concentrated at the top of the organizational pyramid (French & Stewart, 2001).

Typically, organizations utilize two forms of influence upon individuals, the centralization of authority and the formalization of operations; organizations should be wary of extreme levels of formality, although this may give the employee a direct set of rules for performing the task, it stifles an individual's creativity and discretion (Raitano & Kleiner, 2004). Although in a modern organizational theory may view it as dysfunctional, law enforcement is modeled in organizational structure that utilizes a rigid centralized command structure, with a top down one-way communication system, and an abundance of rules and regulations to control the actions of individual officers (Reiter, 1999).

In this particular type of organizational culture, individuals may be prevented from openly confronting the in-place structures, policies, intragroup conflicts of an organization; although this is not the intention of this style of organization, it can cause many levels of stress as well as feelings of tension and anxiety by the individual (Kahn, 2003;Ginsburg, 1990). The organization should understand that if there is any change in the job environment, job dynamic, or job equipment, or employee relations issues, it is

guaranteed that there are employees in the organization who are experiencing stress (Lau, 1988).

Organizations desire to create and maintain a reputation of excellence; however, many organizations have failed to make the nexus between the employee's perception of being valued by the organization and the level of service delivered to the organization's customers (Edelman, 2006). Organizations should develop institutionalized internal policies and procedures to foster goodwill from the organization to the individual employees (Drach-Zahavy, 2004).

The combined culture of law enforcement is beginning to recognize the need of law-enforcement organizations to protect and nurture the emotional wellness of the individual employee; police administrators are realizing that officer wellness, both mental and physical, should be considered a budgetary issue to ensure employee wellness and thereby reducing the potential additional tax burden on the citizens. (Johnson et al., 2005; Benner, 2000)

The final common workplace stressor is the individual's perception of control; there are two common ways in individual perceives control over themselves in an organization, through job autonomy and participation in organizational decision-making (Poon, 2004; Jex, 2002, pp. 195). When the organization empowers the employee with a greater control or autonomy over their work employees experience less strain in the work environment, and a lack of control as well as a lack of decision-making capability should be viewed by the organization as a highly disruptive organizationally induced stressor (Conner & Douglas, 2005; Raitano & Kleiner, 2004).

As employees have higher levels of perceived control and are included in more organizational decision-making processes, it imparts upon the employee a belief that allows them to cope with organizational stressors (Chen & Silverthorne, 2005;Poon, 2004). Organization should recognize that employees provide a vital input to the analysis of jobs, job tasks, and equipment problems as well as the solution and development of any interventions (Monroe, 2006).

It should be recognized by the modern law enforcement organizations that today's police officers are well educated and well trained, therefore these organizations should make every effort to include them in decisions that directly affect them as well as valuing and trusting their individual judgment and decision-making capabilities (Reiter, 1999).

Police Stress

The law enforcement profession has many police specific workplace stressors; this author recognizes that non-law enforcement organizational environments have comparable stressors that are just as serious and debilitating to the individual employee. New challenges and obstacles now face law enforcement organizations that were not present in previous generations of law enforcement officials. The very nature of law enforcement work has changed in the last two decades, new types of crimes such as Internet crimes and concerns of domestic terrorism have developed as potential threats to the safety and security of the citizens. This author has experienced changes in the Prince William County Police Department; these changes include increases in the use of computer technology, new radio systems, as well as a significant growth in the number of law enforcement officials employed by the Prince William County government.

This author has examined many studies and academic writings on law enforcement organizational stress as well as significant studies and academic writings on private sector office environment stresses. In this section of the study, the author will attempt to amalgamate private sector research and the law-enforcement research.

In Boyd's (1994) doctoral dissertation on police stress, he defined police job stress and occupational pressures as elements that adversely affect all law enforcement officials. Boyd identified two periods in a law enforcement official's career in which the perceived stress levels were at their highest; the first occurs during the sixth or seventh year of employment and then again during the 18th or 19th year of employment. Other research studies like the October 2001 Urban Institute Justice Policy Center Study of hiring and retention issues and police agencies, found similar data indicating higher levels of turnover during the fifth through seventh year of employment. This author speculates that the observed spike in stress, reported by Boyd, during the 18th and 19th year of service could be attributed to the stress associated with the finality of a career in law enforcement or as a result of burnout.

The police profession is widely recognized as an occupation that is considered to have one of the highest levels of employee experienced stress; the police officer is expected to deal with stressful situations that are often beyond their abilities to manage or control thereby the officer is placed in a state of distress (Gove, 2005;Johnson et al., 2005; Boyd, 1994).

Throughout an officer's career, they are exposed to these extremely stressful situations which begin to accumulate in the individual officer's psyche and begins to physically manifest in the individual officers general health condition; these physical manifestations of distress consists of such ailments as heart disease, high blood pressure, hypertension, back pain, anxiety and depression (Johnson et al., 2005; Boyd, 1994). Over time these stresses begin to accumulate and eventually leads the officer into a state that is commonly referred to as "burnout" (Boyd, 1994). Burnout is comprised of three elements; the individual's perception of emotional exhaustion, a depersonalization in the job atmosphere where the individual treats the clients in an object manner, and finally the individual perceives all accomplishments and evaluations in a negative manner (Johnson et al., 2005).

Employee burnout can be extremely costly to the health of the individual as well as the health of the organization; the department experiences monetary loss due to the increased use of sick leave, or in extreme cases on anticipated replacement costs of an individual as a result of the employee leaving the organization prematurely or unannounced (Boyd, 1994). Other sources of police stress include equipment deficiencies, lack of input into the departmental policies, and lack of recognition and rewards (Gove, 2005; Toch, 2002).

Ergonomics

As there are many academic definitions for stress, there are just as many academic definitions for ergonomics. The International Ergonomics Association defines the field of ergonomics as being concerned with the understanding of the interactions among humans

and other elements of the system, and the profession that applies theory, principles, data and method to design in or optimize human well-being and overall system performance (Young, 2006; Kincaid, 2004). The American Society of Safety Engineers defines ergonomics as the science of improving employee performance and well being in relation to the job task, equipment, and the environment (American Society of Safety Engineers, 2006). The Canadian Institute of Management defines ergonomics as the study of the workplace that explores the relationship between people, their workstations, and the tasks performed (Canadian Institute of Management, 2005). Other ergonomic practitioners refer to ergonomics as the scientific process of improving the fit between people and their work in order to improve safety, productivity, and employee morale (Gillespie, 2006; Pater, 2005; Leavitt, 1993).

The study of ergonomics is important to organizations; it is applicable to every job in every industry, because the physical environment can produce stresses on the individual employee that can influence the employee's job satisfaction and job performance (Miles, 2000). It is well documented that when a piece of equipment or job process is not suitable to an individual or exceeds the capabilities of an individual, the individual experiences physical and mental discomfort and that through the proper implementation of ergonomic practices reduces the perceived stress of an individuals (Miles, 2000).

It is important to realize that good ergonomics programs are not just simple add-ons to be considered after something has gone wrong to cause special attention to be brought an issue; when organizations use technological patches or fixes to address the

recognized ergonomic weaknesses, the system becomes unmanageable by the organization (Young, 2006).

It is important that organizations realize that ergonomics is not a new trend or fad, historically ergonomics, known previously as human factors engineering, was a critical strategic element during World War II. During that time, scientists and engineers used human factors engineering to develop more pilot friendly cockpit instrument designs of fighter aircraft to facilitate safer operation in the theater of war.

Immediately after the conclusion of World War II, American statistician Dr. W. Edwards Demming developed a ergonomic and process driven management system that became known as Total Quality Management (Noe, Hollenbeck, Gerhart, & Wright, 2006, pp.24, 27; George, Rowlands, & Kastle, 2004). Dr. Demming had a theory known as the 85/15 rule, which has ergonomic applications, he proposed that that 85% of quality issues with workers output was in the work process and not as a result of the individual worker.

As human factors engineering evolved into ergonomics, other scientists ushered in a principle of ergonomic design; such is the case presented by Bossen (2006) in his summary of the first ergonomics-training program incorporated in American industry. Bossen examined how in 1976, Herman Miller Inc. introduced to the corporate offices of Texas Instruments, the first fully integrated and ergonomically designed adjustable office chair. Bossen stated that after the initial deployment of the "Ergon chair" it was found that the workers' behaviors had not changed and that they continued to sit in positions that were not ergonomically sound; upon follow-up interviews conducted by Herman

Miller Inc., it was found that workers had no idea on how to make any adjustments to the adjustable chair. Herman Miller Inc. then developed what many consider to be the first office ergonomics-training program known to corporate America (Bossen, 2006).

Because of the efforts made by Herman Miller Inc., the science of ergonomics has advanced from merely studying the effects of equipment and the work environment into designing equipment and training programs to operate equipment and ergonomic manner. The science of ergonomic design has realized the need to optimize equipment to the needs of the worker as well as the needs of the organization and thereby achieving a healthy and productive workplace (Allie, 1994).

In the practical field of ergonomics, recognizes improper workstations can add unnecessary steps to an individual's work process or increases the necessary steps for successfully completion of a work task and therefore extending the amount of time necessary to accomplish a successful job task (Miles, 2000).

Good ergonomic design solutions are often the foundation upon which job performance and job productivity improvements are built; they reduce inefficiency, wasted effort, wasted time as well as other performance hindrances (Kincaid, 2004;Miles, 2000; Allie, 1994; Leavitt, 1993). An ergonomically designed workstation allows for job autonomy by allowing the individual to make environmental changes to reduce the stress and risk of injury in their work process.

The principal of good ergonomic design consists of the following three approaches: bringing work closer to people through design, evaluation, and redesign; bringing people closer to the work, by improving their skill sets, increasing their

judgment, and educating them as to risk assessments in the workplace; or the hybrid version which brings the work closer to the people as well as bringing people closer to work (Baron et al., 2006; Pater, 2005; Miles).

Organizations desire the highest level of performance and productivity from their workforce, therefore ergonomics and the principles behind ergonomic design have become increasingly more important to the fundamental success of an organization; organizations that engage in simple ergonomics solutions can improve their workers health while increasing employee productivity and improving the profitability of the organization (Baron et al., 2006; Kincaid, 2005).

Many in the field of ergonomics have documented the fiscal importance of a good ergonomics program for all industries regardless of job type; a strong organization will manage their ergonomics program just is intensely as they would any other structure of importance to their organization, this is based on of the principal that a healthy worker is a productive worker and therefore the company's most valuable asset to ensure future success (Canadian Institute of Management, 2005;Kincaid, 2005; Rostykus & Egbert, 2005; Miles, 2000; Leavitt, 1993).

In recent years, organizations that have committed themselves to good sound practices of ergonomics have utilized their programs to combat the rising medical costs associated with musculoskeletal disorders, cumulative trauma disorders, and escalating workers' compensation claims (Monroe, 2006; Miles, 2000). Organizations should realize that any investment in an ergonomically designed, user-friendly piece of equipment will

deliver a return on investment relatively quickly because of less worker fatigue which leads to higher productivity (Kincaid, 2005; Timm, 2005; Rowh, 1999; Leavitt, 1993).

In assessing the effects of an ergonomics intervention, many studies have shown through longitudinal analysis, that efforts made by an organization to manage the design of technology to the needs and characteristics of the employee, resulted in the workforce consistently experiencing reductions of injuries as well as cost savings as a result of higher performance and reduce medical costs (Chen & Silverthorne, 2005; McDermott, Lopez, & Weiss, 2004; O'Reilly-Brophy, Achimore, & Moore-Dawson, 2001).

Therefore, organizations should utilize well thought out and scientifically supported ergonomic interventions and training programs as a means to prevent on-the-job stressors. By using risk-based ergonomics programs, the organization can tailor intervention programs toward specific stressors being experienced by specific workers within the organization; it has been found that organizations that implement specialized ergonomics intervention programs to target areas that are causing specific worker injuries like carpal tunnels syndrome, the organization has a benefit of a cost-reduction in the total medical claims related to carpal tunnel syndrome as well as the associated medical costs (Brace, 2005; McDermott et al., 2004; Miles, 2000). Organizations should realize that even the most apparently benign environmental influence can have a negative affect on the employee's job performance; environmental issues such as lighting, ambient temperatures, and regular work breaks are some of the most overlooked factors that play an important role in the ability of an employee to perform their job (Anshel, 2006;Rowh, 2006; Rowh, 1999; Allie, 1994).

The lighting of an individual's workspace is one of the most underemphasized ergonomic components of the workplace, an individual's comfort level for lighting must be addressed on a case-by-case basis; an environment with too much light or too little light can reduce the worker's ability to effectively see the task their performing and thereby reducing their job performance and productivity, it is important that organizations recognize that there is no one level of illumination that will fit the needs of every worker (Anshel, 2006).

Work environment temperatures can also be a hindrance to the employee; a work environment that is hot all day brings on a more rapid rate of worker fatigue, an overly cold environment has an equally detrimental impact on individuals engage in typing as a work process, cold temperatures can make the muscles and joints in the hands tighten therefore causing the fingers cramp which reduces their work efficiency (Rowh, 1999).

Providing the worker time to take breaks during the work day has a positive influence on the employee's overall job performance; in the office environment simply allowing employees to stand will provide a helpful break from the long periods of sitting in an office cubicle (Rowh, 2006). During those breaks, employees should be encouraged to move around rather than remain stationary, it has been shown that movement increases blood circulation and decreases fatigue by engaging a variety of muscle groups; movement begins to loosen the joints and muscles, thereby allowing even more blood circulation to the extremities and allows the body returned to its natural alignment of the spine and arms (Rowh, 1999;Allie, 1994).

Organizations should understand that there are financial detriments, should they choose to ignore impact of ergonomics in the workplace. Every occupation has physical challenges that can be perceived by the individual as a stressor and even the office environment is not immune (Rowh, 2006). Organizations that demonstrate a lack of concern for the ergonomic health of their employees put themselves at a greater risk that this lack of concern will have a negative impact on the organizations bottom line, this is a result of increased claims for workers' compensation as well as the medical costs associated with the cumulative effects of stress manifesting itself in physical ailments (Timm, 2005; Miles, 2000; Allie, 1994). The Canadian Institute of Management stated, in the fall of 2005, that when employees are experiencing discomfort, the employee's performance suffers and subsequently so does the business viability and productivity; therefore The Canadian Institute of Management states that a good ergonomic program directly correlates into a good business outcome.

Poor ergonomics programs can potentially lead to incidents of workplace injuries that can result in early retirements and can remove critical employees, who possess a high level of skills or an organizational knowledge, from the organization causing a ripple effect financially as well as emotionally throughout the entire organization (Roth, 2004). Negative employee perceptions of the organization has is to mental tension and then leads to employee complaints of physical pain, discomfort, and as well as an increased level of job dissatisfaction (Sarkus, 2001).

Many ergonomics strategies employ simple solutions that involve little or no cost to the organization when you compare it be unforeseen costs of inferior workstation setup and lack of a proper equipment training program, that has been proven to have a direct correlation on the occurrence of MSDs in the workplace (Baron et al., 2006; Campeau, 2006; Chasen, 2003). It is documented that workers' compensation claims and associated medical expenses have skyrocketed since the 1980s; a single carpal tunnel injury can cost an organization approximately $50,000 in workers composition claims and this does not take into account the amount the organization would have to spend and lost man-hours (Rowh, 2006; Fernberg, 1994; Leavitt, 1993). Office workers face many potential ergonomic risks in the office environment, potential injuries include a variety of MSDs and vision issues; ergonomic studies of vision issues have shown on average that an individual suffering from poor vision will have a 4 to 8% deficiency in task performance as compared to a worker who has no vision problems (Anshel, 2006; Rowh).

In the field of ergonomics, there are three categories of injury associated with events or occurrences that are commonplace in the work environment; these categories consist of musculoskeletal disorders (MSDs), cumulative trauma disorders (CTDs), and repetitive stress or strain injuries (RSIs).

Musculoskeletal disorders (MSDs) are physical injuries, that are not associated with automobile accidents or a single occurrence injury while working on the job, but the cumulative result of exposures or injuries that effect the muscles, nerves, tendons, joints, and lower back (Campeau, 2006; Monroe, 2006). MSDs develop over periods of time, therefore early recognition and intervention are critical elements to the overall ergonomic

strategy of the organization to minimize the impacts and severities of MSD injuries; nationwide, MSD injuries have a huge impact on corporate America, costing billions of dollars in medical costs, lost wages, and reduced worker productivity (Monroe, 2006).

Cumulative stress disorders are a classification of MSDs, a common trend in CTDs are the result of chronic exposure to a specific repeated biomechanical stress that can cause debilitating physical conditions (Monroe, 2006; Allie, 1994). Common areas of the body that are effected by CTDs include the neck, back, shoulders, elbows, wrists, nerves of the hands, as well as both the upper and lower extremities as they relate to blood flow (Monroe, 2006). CTDs can result from improper seating or body position which adversely effects blood flow and circulation to the lower extremities and can cause muscle fatigue of the lower body as well as the poor alignment of an individual's spine; the upper body can also experience muscle fatigue as well as nerve damage to the elbows, wrists, and hands, which could severely impede an office workers ability to perform their job (Monroe, 2006).

Repetitive strain injuries, also known as repetitive stress injuries, (RSIs) are injuries that are the result of the accumulation of very slight traumas to the individual's bones, muscle tissue, and connective tissues, and nerves (McDermott et al., 2004;Allie, 1994). These injuries are often the result of the working conditions of the individual's or their specific work tasks; RSIs are the cumulative results of the of awkward postures, repetitive motions, and vibrations from the performance of one's job and manifest themselves as pain and swelling of the afflicted extremities, numbness, general weakness of the extremity, as well as a loss and range of motion (McDermott et al., 2004).

With the broad concepts of MSDs, CTDs, and RSIs defined, we shall now address the specific types of associated injuries that are occurring in the workplace. In the United States, lower back MSDs are growing at an epidemic rate (Fitch & Fitch, 2004), these injuries include damage to the spinal disc, muscle tissues, and soft tissues that are associated with back strain (Campeau, 2006). Organizations should concern themselves with the occupational risk factors that are created by the workplace that have been shown to be associated with lower back injuries, which can be brought on by lifting, twisting, bending, awkward movements as well as stationary postures (Campeau; O'Reilly-Brophy et al., 2001).

Organizations should recognize the potential expense of cumulative back injuries is enormous and is not limited to the direct costs such as lost time and medical expenses, but also contain indirect costs associated with the temporary or permanent replacement of injured workers (Fitch & Fitch). This has a direct impact on the law enforcement profession, it has been shown by study that the amount of time police personnel spend in their vehicle has a direct influence on the amount of lower back issues reported to the Department as well as the total amount of days absent from work as the result of lower back trouble (Porter, 1999).

CTDs are becoming more common in the office workplace; the most common employee affected by CTDs are individuals who utilize computers, these employees frequently cite low back pain, eye fatigue, muscle soreness, carpal tunnel syndrome, and wrist tendonitis are a direct result from the job tasks they perform every day in the office

environment (Allie, 1994). In the common office environment, everyday tasks have the potential to lead to CTDs, which are caused when workers are required to perform keyboard intensive tasks with little or no work breaks; over time these tasks can cause injuries so debilitating that the employee may require surgery to repair the effects CTDs (Allie).

One of the most common MSD that occurs in both office professional and industrial work is Carpal Tunnel Syndrome that are caused by excessive pressures exerted on nerves and ligaments of the hand (Campeau, 2006). The symptoms of Carpal Tunnel Syndrome, include a tingling and weakness of the hands, associated with pain or numbness in the thumb and first three fingers of the hand; in the office environment a common cause of this injury is the cumulative result of stress from common computer usage (Campeau, 2006; McDermott et al., 2004;Allie, 1994).

Other common office MSDs include hand and wrist tendonitis, neck MSDs, bursitis, and Cubital Tunnel Syndrome (Campeau, 2006; McDermott et al., 2004). Tendonitis is characterized as the inflammation or irritation of a tendon, this can affect any extremity, but in the office workplace, it is more commonly found in the wrist and fingers.

Individuals who spend the majority of their day sitting at a desk, working on a computer (Campeau, 2006), characterize neck MSDs as frequent pain located in the area of the neck and shoulder areas. Bursitis is an injury that results in the inflammation of the bursa and tendon sheaths, which is an injury that commonly occurs in office workers

because of the repetitive keyboard strokes and mouse movements associated with office work (McDermott et al., 2004).

Cubital Tunnel Syndrome is similar to carpal tunnel syndrome and is described as a tingling, numbness, or pain radiating through the ring and little finger of the hand; this injury is due to the compression of the ulnar nerve from resting the forearm on a hard edge or stiff surface for extended periods of time (McDermott et al., 2004).

Another office environment ailment that is the result of using computers is visual RSIs. Visual RSIs have three distinct categories: myopia, commonly referred to as nearsightedness; hyperopia, which is commonly referred to as our sidedness; and astigmatisms, which is any distortion in the shape of the cornea or other optical structures (Anshel, 2006).

In an office environment, the common contributing factors of most MSDs, CTDs, and RSIs, is the individual's usage of computers. In almost all aspects of life computers are used to perform everyday tasks, computers are utilized at home and in the work environment; in the current work environment, younger workers are arriving at the organization with 16 years of computer usage, and often this computer usage was combined with poor posture and non-ergonomically designed components (Anshel; Martin, 2005; Lopez, 2005; Leavitt, 1993).

Many police departments are supplying their personnel with computers and have converted many of the day-to-day processes to a computerized form; the organizations have done this in order to increase worker productivity while reducing overall operational costs (Sewell, 2002; Sarkus, 2001;Allie, 1994).

As organizations and police agencies become more aware of the financial impacts of MSDs, CTDs, RSIs and the extent that ergonomics can have a positive impact on the reduction of the stressors that lead to the debilitating injuries, organizations and police agencies should develop ergonomic programs. Organizations can consult OSHA for guidance as to how to develop and implement a successful ergonomics program. OSHA explain that employees face many risks from poor task organization, which can intensify the impact of other risk factors on the individual; OSHA encourages the organizations to seek out employee participation in the development of an ergonomics program, they also suggest that the organization assign a specific ergonomics manager responsible for communicating the policies and procedures to all employees (Baron et al., 2006; Abbot, 2003).

There are many documented processes, outside the recommendations of OSHA, for developing an organizational ergonomics program. There are many of design models for the development of the ergonomics programs that are similar in nature, all include a series of steps to develop in a building block fashion, a successful program as well as a means to implement it within the organization (Bossen, 2006; Lopez, 2005; Robertson & Maynard, 2005; Rostykus & Egbert, 2005; McDermott et al., 2004; 232 O'Reilly-Brophy et al., 2001). The body of research suggests that an organization perform a needs analysis and current risk profile for every employee within the organization, careful attention to the collection of data is paramount to the success of the program. Second, organizations should analyze the data collected and conduct specific analysis as to areas of high risk as

well as overall ergonomic issues within the organization; from the analysis an organization should select a group of employees to assist in the development of ergonomic strategies and equipment as well as developing methods of implementation. Third, the organization should develop an ergonomics-training program and begin the process of training the entire organization as to the importance of the organization's ergonomic strategy and practices. Fourth, after conclusion of the training employees should be able to implement the recently acquired ergonomics knowledge to their specific job tasks within the organization. Fifth, the organization should communicate the goals of the ergonomic strategy and have a system in place for employees to evaluate the ergonomics training and the success of the ergonomics program in achieving the organizational goals of reducing exposure to risk factors. Sixth, the organization should conduct evaluations of the entire program on a regular basis; in the event the organization receives new equipment or develops new job tasks, the organization should begin a new organizational wide six-step evaluation as previously described. The American Society of Safety Engineers and contemporary ergonomic theorists have made the recommendation that an ergonomics program should be viewed as a continuous improvement effort to provide the design of the best workplace possible for the employee and to ensure that no element of the design engineers the performance of the employee (American Society of Safety Engineers, 2006; Chen, Hedge, & Owsen, 2005).

In order to increase the overall probability of success for the organizational ergonomics program, the senior levels of management must be educated as to the need for the program as well as the policies and procedures of implementing the program; the

senior management must be completely committed to the purpose of the program through proper funding and support (Robertson & Maynard, 2005; Rostykus & Egbert, 2005). Employees of the organization should be trained as to the importance of ergonomic tools, workstations, and practices while developing individual skills, abilities, and knowledge at assessing ergonomic risks within their work station (Rostykus & Egbert; on Miles, 2000).

Group Behaviors and organizational structure and climate

The last component of review of literature is the study of groups and group behavior. This study defines a group with the academically agreed upon characteristics of a group. The first key characteristic of a group is that there is a perceived independence among the group members, each member must clearly see themselves as a part of a collective which depends on the actions and performance of the other members of the collective in order to achieve success (Lencioni, 2006; Jex, 2002).

A second key characteristic of groups is the level and degree of social interaction amongst the members; work groups are a modern form of collaboration between individuals that creates a positive atmosphere and a culture of cooperative support (Bierhoff & Müller, 2005; Jex, 2002). There is evidence to support that a complex system of socialization develops when people take risks by trusting one another and confronting difficult issues (Kahn, 2003). As a result of this interaction, the members of the group develop a series of us shared values as well as mutual perceptions about the organization's cultural environment and interactions with other groups within the organization (Chowdhury, 2005).

The third key characteristic of groups is the individual members develop a sense of identity from the group personality; an individual's participation in the group socialization process promotes an overall competency throughout the group (Kauffeld, 2006; Cooper-Thomas & Anderson, 2002; Jex, 2002). Organizations should utilize socialization tactics to enable newcomers to adapt into the social roles of the group and develop the necessary skills to manage conflicts, coordinate their work, and otherwise work in a more integrated cooperative fashion with other members of the group (Morgeson et al., 2005).

The final key characteristic of a group, is the group's commonality of purpose, in order for group to be formed the individuals comprise the group must either have common goals or another mutual reason for existence (Jex, 2002). Organizations that have clearly defined goals and a solid leadership provide the individuals within means to understand how they are contributing to the overall success of the organization (Maccoby, 2006; Lencioni, 2006). In Kotter's, study of groups, he explained the necessity of properly educated and trained leadership,

> Unless the many individuals line up and moved together in the same direction, people will tend to fall over one another. To executives who are over educated in management and under educated in leadership, the idea of getting people moving in the same direction appears to be an organizational problem. What executives need to do, however, is not organized people but align them (Kotter, 2001, p. 7).

An organizational culture is based on the individuals perceptions of the organization's features, events and processes (Carless, 2004) and was further defined by Edelman (2006) as a sum total of the customs, actions, attitudes, and the idea is that permeate a given in workplace. Within an organization's culture there is a mix of collectivistic and individualistic values, that determine the extent of collaboration among the members of the groups as well as he interaction among separate groups that comprise the organization (Tjosvold, Law, & Sun, 2003).

Drach-Zahavy (2004) defined the concept of individualism and collectivism as the degree to which individual team members expect each other to orient their actions as to their own benefits, which is the concept individualism, rather than to the group's benefit, which is the concept of collectivism.

Deficiencies in Organizational Management of Groups

With the core characteristics of a group explained, this study has researched the academic writings that focused on how organizations fail their internal groups as well as their internal members. One of the primary failures an organization has in relation to their established groups, is that they merely lump individuals a together and expect that group of individuals to function efficiently together and form into a high performance team; organizations must recognize that in order to create and sustain effective teamwork, the process must be viewed as a continuous exercise, that may take several years for a group to begin functioning as a cohesive high performance team (Pyöriä, 2005). In most

organizations, groups must work together for the organization to be successful; in order for these intergroup interactions to be successful, they require many of the same key characteristics as the individual's relationships to group (Jex, 2002).

It is extremely important that organizations monitor the interaction between groups as they would monitor the individual interactions of their separate internal groups. Some of the common impediments to successful intergroup and group interactions including the development organizational status rankings, organizational politics, the organizational structure itself, lack managements ability to recognize employee tress, and the lack of meaningful forms of employee recognition.

Status rankings within an organization are the intangible and tangible benefits that given to an individual that provides them distinction from others in the organization (Bacharach, Bamberger, & Mundell, 1993). An unintended consequence of status rankings is that many organizations fail to recognize is that when the leadership shows favoritism to certain subordinates, organizational stress begins to form (Sewell, 2006). An organization's competitive nature to be successful may be the reason organizations abandon the traditional team model, which assumes that all workgroups will operate within a concept of equality amongst a group (Barner, 2006).

Status rankings of both groups and/or individuals may create the barriers that Lencioni, Schütz, and Bloch examined in their works. Lencioni (2006) stated in his work,

"the people in the different divisions see their colleagues as moving in different directions, which causes confusion, and over time this confusion turns into disappointment, resentment, and even hostility towards their coworkers"(Lencioni, 2006, p.3). Although it is common to have a conflict when individuals interact with one another, this level of conflict can result in group or individual elitisms that can lead them into isolation from the other groups or individuals of an organization (Schütz & Bloch; Mohammed & Angell, 2004). Another result of this conflict is that individuals perceive a breach of a psychological contract that leads to a decline in trust between those individuals of other status ranking; this can result in a decrease in the individuals ability to focus on their job because it can cause them to focus their energies on their prior personal conflicts and personal antagonisms towards members of the other status rankings (Passos & Caetano, 2005; Piccoli & Ives, 2003).

Conflict between members of separate status rankings of an organizational system can cause a system of organizational politics to develop, this can lead to uncontrolled levels of stress for individual employees; when organizations cannot control the internal politics the workplace develops into an extremely stressful environment that decreases individuals capabilities to perform their jobs properly and is likely to lead to high turnover of employees (Poon, 2004; Kahn, 2003).

Organizations, more specifically law enforcement organizations, cannot afford to ignore the stress that these conflicts or the very nature of the organization itself have on

any individual employee (Sewell, 2006). Sources of job stress include the organizational climates that the leadership style of the organization developed (Chen & Silverthorne, 2005). Law enforcement organizations have a tendency to implement changes to the organization without including the employees in the decision-making process or with little consideration for the impact that will have on their employees and how it will affect the performance level of the employees (Sewell, 2002; Boyd, 1994).

Law enforcement organizations are designed in a paramilitary structure and an unintended result of a paramilitary structure is a general lack of organizational concern for the individual's well being. In paramilitary organizations, such as police departments, there are a series of strict rules and regulations as well as an exact adherence to a formal chain of command; by relying on the style of organization it in inadvertently displays to the employee at the organization lacks confidence in their personal abilities and their competency (French & Stewart, 2001; Reiter, 1999). As this begins to accumulate in the individual's psyche, it erodes at the individual's organizational commitment and decreases the morale of the organization (Bishop et al., 2005; Poon, 2004).

One element of the paramilitary structure style that has a direct link to employee stress and perceived job control is a strict set of rules that guide organizations such as law enforcement; in law enforcement there is a trend to adhere to a set of nationally established accreditation standards, also known as CALEA (Reiter, 1999). The Prince William County police department actively engaged in the CALEA accreditation

program (PWCPD, 2005). In the field of organizational psychology, policies like the CALEA national police accreditation standards can cause stress at all levels of the organization; these policies can reduce the perception of job control by the individual officer and in some situations, such as counter manning orders, forces an officer to make a decision between conflicting policies (Miles, 2000; Reiter, 1999; Ginsburg, 1990).

Organizations, including law enforcement organizations, often fail to train the organization's management staff to recognize the early warning signs of stress in their employees (Sewell, 2006). Organizations must recognize that employee stress management is a continuous process of monitoring, diagnosing, and preventing of the excessive stressors that adversely affect all members of the organization and their overall productivity (Obholzer, 2005; Raitano & Kleiner, 2004). Properly trained managerial staff are more readily equipped to detect the indicators of stressors, which includes fatigue, irritability, low morale, difficulty in concentration of the employee, as well as an overall lack of job satisfaction (Urwin, 2006; Babcock, 2003).

Organizations should realize that a failure to recognize employees, their most vital resource, for their performance establishes a lack of organizational commitment and can cause high levels of stress that is damaging both mentally and physically to an employee (Gove, 2005; Leavitt, 1993). Employees want to recognition for their work performance, Nelson (2004) found that most employees rank the simple act of thanking them as one of the most meaningful forms of recognition an organization can provide employees.

Organizational success requires feedback from the organization to the individual, and the rewarding accomplishments of the employee's job will have a positive impact on their job performance (Teratanavat, Raitano, & Kleiner, 2006).

Research indicates that organizations can do many things to improve their culture and the structure in which they operate. One critical area that an organization should consider improving is how the organization motivates an employee into the organizational culture, the foundation of the culture is communication which has been found to lead to strong job performance and higher levels of coordination between groups (Edelman, 2006; Lu et al., 2006; Rico & Cohen, 2005; Piccoli, Powell, & Ives, 2004).

The leadership of the organization should be adaptable to any and all changes, they should keep in mind that there is no singular way to organize workers, and the leadership should be mission driven rather than ego driven (Edelman, 2006; Akrivou, Boyatzis, & McLeod, 2006); Maccoby, 2006).

Organizations should value the people that work for them as much as they value the product that their workforce produces; the more perceived stress an individual employee experiences, the more general stress permeates through the entire organization, praise is a critical element but it is not a cure-all for organizational stress (Edelman, 2006; Glazer & Beehr, 2005; Gove, 2005).

Organizations should empower their workforce by giving the people the chance to utilize their knowledge, skills, and abilities to provide the organization with the highest level of individual employee job performance (Edelman, 2006; Chowdhury, 2005; Reiter, 1999).

CHAPTER THREE

Actual Research

The Prince William Police Department strives to obtain the highest levels of performance from individual members of its police force. The purpose of this study was to assist the department in determining the impact that stressors from the physical work environment, assigned equipment, social interactions, organizational policies and procedures have on the ability of individuals to improve their job performance. This study was designed to answer the following research question: What is the impact of work related stressors on detectives' job performance?

Two dependent variables were used: 1) job performance and 2) job satisfaction. The following independent variables were used to answer the research question. The independent variables include: physical work environment, assigned equipment, social interactions, organizational policies and procedures.

Design of the Study

The target population for this study is investigators in a large metropolitan police force. The sample consisted of detectives in the Criminal Investigations Division of the Prince William County Police Department. A survey was administered on two separate occasions, in the Spring of 2006 and Winter of 2006, of a random sample of detectives assigned to the Criminal Investigations Division. Data was collected from twenty detectives, accounting for 40% of the available sample group. The total number of respondents for both surveys was forty detectives.

During the period between the initial survey in spring 2006 and the follow-up survey in winter 2006, several detectives had left the Criminal Investigations Division and were relocated to other positions within the Prince William County Police Department; however, at the time of the winter 2006 survey, these vacancies had been filled by other members from within the department. This survey was conducted in order to obtain information from the sample of the detectives in the Criminal Investigation Division of the Prince William County Police Department (Scheuren, 2004, p. 9). The survey items were used to engage the respondents to self-report detailed information about the perceptions and attitudes of the members of the Criminal Investigations Division (Rosenfeld, Edwards, &Thomas, 1995, p.548) and provided a scientific means to collect the information (Rossi, Wright, & Anderson, 1983, p.1).

Validity

The PWCPD has been involved in a large survey effort twice in the past four years. During the administration of the previous surveys members of the police force had concerns about anonymity and statements were made that indicated that responses may not have been honest. This created a threat to internal validity. The previous studies were designed and administered by a large university in the state of Virginia. Results were delivered to high ranking members of the department and only shared with unit members at the discretion of unit leaders. The previous experience may have had a negative influence on the current attempt to collect data using a survey. To overcome this threat communication was clear and open before and during the administration of the

survey. Measures have also been taken to ensure that results from this study will be shared with all detectives on the force.

Unfavorable experiences could have lead to item responses that were less than honest. As mentioned earlier some detectives were transferred to other units during the time that the study was conducted. This created a threat to internal validity by maturation between the first and second administrations of the survey. Although the researcher was new at survey research the pilot conducted in the spring and then again in the winter of 2006 strengthens the reliability of the survey and the validity of the instrument.

The sample used for the study all worked for the same unit in the Prince William Police Department. By collecting data at two different times an attempt was made to reduce threats to external validity, however, external validity issues still remain. It must be made clear that the results of this study focus primarily on the detectives surveyed. Work conditions change from unit to unit within not only the PWCPD, but from police department to police department. A change in context can dramatically change the findings of the study.

Designing the Survey

The formulation of survey items and subsequent analysis of the results were based on the review of the work by Church & Waclawski, Designing and Using Organizational Surveys: A Seven-Step Process. The survey, a "paper and pen response" (Church & Waclawski, 1998, p. 130), was segmented into four sections that focused on; individual's length of service both within the Prince William County Police Department and their length of service in Criminal Investigations Division, individual's perception of the

physical factors of the work environment in relation to their job performance, individual's perception of the organizational factors in relation to their job performance, and the individual's equipment in relation to their job performance.

The seven steps outlined in Church & Waclawski were followed in order to create the survey utilized for the research component of this study. In performing step one, pooling of resources (Church & Waclawski, 1998, p. 49), the author communicated with the Chief of Police and the Commander of the Criminal Investigations Division to communicate the purpose of the study and gain official permission to perform the survey research. In performing step two, developing a world-class survey (Church & Waclawski, 1998, pp. 87-88), the author spoke to members of the Criminal Investigations Division and developed areas of interest, then formulated items based on the types of questions outlined in the text (Church & Waclawski, 1998, pp. 51-88).

In performing step three, communicating objectives (Church & Waclawski, 1998, pp. 111-112), the members of the Criminal Investigations Division were advised that a sample of detectives would be administered a survey, which included a overview of the method of delivery and retrieval for the survey, and the author's intention of the survey research. In performing step four, administering the survey (Church & Waclawski, 1998, pp.113-148), a plan was created to administer and receive all responses in a span of a work week; the surveys were hand delivered to the participants who instructed to read and sign the study's confidentiality agreement, they were then instructed to read the survey directions. The respondents were directed to complete the survey and return the result in a provided envelope via the Departmental interoffice mail system. At the

conclusion of the work week the completed surveys were tabulated and entered in to a spreadsheet.

In performing step five, interpreting results (Church & Waclawski, 1998, pp. 149-200), was completed after both surveys were submitted by the respondents, the author utilized Microsoft Excel to perform item-level data analysis (Church & Waclawski, 1998, pp. 172-178). Using the item-level data, this study performed some conceptual-level analysis (Church & Waclawski, 1998, pp. 178-186).

The final steps outlined in the text included step six, delivering the findings, and step seven, learning in action, (Church & Waclawski, 1998, pp.201-277), these will be performed after the completion of the study as stated in the application chapter of this study. The sixth step recommendations from the text instruct the survey to be presented to the organization in a form that is similar to this thesis. The seventh step recommendation advises the organization to develop specific programs or systems to address any findings of the study. The recommendations made in this study provide the Criminal Investigations Division of the Prince William County Police Department with three systematic approaches to make improvements to current system. This author will offer his assistance to Chief of Police to help implement these programs.

After administrating this survey to a sample of detectives in the Spring of 2006, which was considered the pilot study (Church & Waclawski, 1998, p. 84) there were no changes made to the number or type of items contained within the survey, which was then re-administered to another sampling of detectives in the Winter of 2006. The results of both the Spring 2006 and Winter 2006 surveys were tabulated separately and analyzed

separately; the results of the analysis of each survey were then compiled for a longitudinal analysis.

Tenure within the Criminal Investigations Division and the Prince William County Police Department

The purpose of these survey items was to establish an understanding as to the relative amount of individual tenure within the Prince William County Police Department and establish the experiential makeup of the Criminal Investigations Division of the Prince William County Police Department. Job experience is gained over time and collectively affects the ability of the Police Department to resolve complex issues presented to the organization (Kauffeld, 2006; Chowdhury, 2005; Morgeson et al., 2005; Kahn, 2003).

In response to the survey item examining the tenure of the respondents in relation to their entire career with the Prince William County Police Department, it was found that 50% of the respondents had less than 10 years service with the Prince William County police department; the greatest concentration of total respondents, 37.5%, had served between five and nine years with the Prince William County Police Department. Slightly more than eighty-two percent of the sample had been assigned to the Criminal Investigations Division for less than 10 years; the greatest concentration of the sample, 45%, had been assigned to the Criminal Investigations Division between one in four years. 15% of the sample of had been assigned to the Criminal Investigations Division for less than one year.

In analyzing the tenure data, the study took into account the influence that an individual's tenure in the police department had in relation to the effects of cumulative stress and that burnout can have an effect on an individual's perceptions of stress and organizational commitment (Bishop et al., 2005; Abbot, 2003; Toch, 2002; Boyd, 1994). Tenure does not necessarily equate to a negative attitude towards the organization or low organizational commitment; however, it has a strong influence on the individual. The Department has an organizationally young workforce and will have many opportunities to establish a positive work environment and culture that is beneficial to the individual detective and the police department.

Physical factors and their perceived influence on individual job performance

The purpose of this section of the survey was to gain an understanding of the individual's perceptions of their physical environment or their workstation in relation to their job performance. The physical environment includes the physical layout of the office, the physical layout of the office cubicles, and the overall physical condition of the office environment.

A majority, 77.5% of the respondents, indicated that their designated workspace had influenced their job performance; this survey did not take into account whether the individual perceived a positive or negative influence, rather it was designed to ask the individual to evaluate whether their workspace influenced them at all. The detective's perception of the influence their workspace has in relation to their job performance is a measurement of the potential stressors (Barsky et al., 2004; Jex, 2002).

The respondents were asked to rate the quality of their workspace, 42.5% of the sample rated the quality of their workspace as above average, 42.5% of the sample rated the quality of their workspace is average, 15% of the sample rated the quality of their workspace as below average. The majority of respondents also indicated that they were satisfied with their workspace and that the Prince William County Police Department had provided them with adequate workspace.

The detectives of the Prince William County Police Department perceive their work environment as a quality workspace that influences their capability to perform their job and therefore this is not an area that is currently perceived as a stressor by a majority of the sample of detectives.

It is the opinion of this author that the employee's attitudes were influenced by the opening of the Western District Station; however, those who indicated that they were dissatisfied with their workspace may be the result of the significant differences in the physical layout of the office cubicle workspace and available workspace of the Eastern District station as compared to the cubicle space and available workspace of the Western District Station. The Police Department should recognize that this disparity, in office cubicle space, could be perceived as an informal status ranking (Bacharach et al., 1993) and has potential to lead to conflict between members within the Criminal Investigations Division (Passos & Caetano, 2005; Schütz & Bloch, 2006; Sewell, 2006).

Organizational factors and their relation to the individual's job performance

The purpose of this section of the survey was to gain an understanding of the individual respondent's perception of organizational factors as they related to their job

performance. Organizational factors include the social and professional transactions between detectives and other bureaus or units of the Prince William County Police Department, as well as the interactions within other detective units, and the amount of recognition for assisting other units.

Detectives utilize the services of the Identification Bureau to process forensic evidence, develop potential leads for their investigations, and identify potential suspects. Detectives utilize the services of the Operations Division to conduct preliminary investigations of offenses and provide detailed incident reports documenting all victims, witnesses, and potential suspects. Detectives conduct investigations into potential suspects, who often may be potential suspects in other criminal investigations. Therefore, the ability of the detective to network with other investigators is critical to ensure successful conclusions to their mutual investigations. In large-scale investigations, detectives from multiple units are required to provide mutual assistance to ensure a quick successful resolution (Ellis et al., 2005; Boyd, 1994).

The Prince William County Police Department is designed as a paramilitary organization, this is a common style throughout the profession of law enforcement. (Reiter, 1999) The Criminal Investigations Division of the Prince William County Police Department is divided into several units: the Violent Crimes Unit, the Crimes Against Children Unit, the Burglary Unit, the Major Crimes Unit, the Special Investigations Unit, the Special Problems Unit, the Street Crimes Unit, and the Gang Investigations Unit.

The Prince William County Police Department has a two-volume manual of policies and directives, which govern the individual employee as to the performance of their job. These policies and procedures are readily available to every member of the department via the county Intranet system as well as hardcopy editions.

Theorists such as Ginsberg (1990) and Toch (2002) have demonstrated the importance of organizational review of the policies and procedures of the department; it is important to recognize that poor, outdated, or nonexistent policies can lead to stress throughout the entire organization. Organizations should understand that without proper communication, policies and procedures might reduce the employee's perception of job control and weaken organizational commitment (Lu et al., 2006; Bishop et al., 2005; Rico & Cohen, 2005; Poon, 2004; Piccoli & Ives, 2003; Sewell, 2002; Miles, 2000; Boyd, 1994). It is also important that organizations realize their culture may impede individuals from offering open criticism, an indicator of job stress, and leads to the frustration of employees as well as the internalization of stress, that can have serious physiological consequences (Gove, 2005; Kahn, 2003).

Organizations should also realize the importance of the relationship between formal and informal recognition and performance. Organizations that do not engage in recognition programs establish a culture of a low level of social support for their employees and results in lower job performance (Edelman, 2006; Teratanavat et al., 2006; Gove, 2005; Nelson, 2004).

Evaluation of the Identification Bureau

The majority, 90% of the respondents, indicated that they frequently utilize the services of the Identification Bureau of the Prince William County Police Department to assist them in the performance of their job; more than 65% of respondents rated the services provided by the Identification Bureau as above average and were providing services that were on par or exceeding the services provided by other bureaus or units of the Prince William County Police Department. 80% of respondents indicated that the services of the Identification Bureau had influence on their individual job performance capacity. Therefore, the interaction between detectives and the personnel of the Identification Bureau is a positive exchange, providing detectives with positive influences on their job performance and is not perceived as a stressor by the detectives.

Evaluation of the Operations Division

The majority, 85% of the respondents, indicated that they frequently utilize the services of the Operations Division of the Prince William County Police Department to assist them in the performance of their job. More than 70% of the respondents rated the quality of the services of the Operations Division as above average and were providing services that were effective in assisting the individual respondent's job performance. More than 65% of respondents rated the services provided by the Operations Division were on par or exceeding the level of services provided by other bureaus or units of the Prince William County Police Department. Therefore, the interaction between detectives and the personnel of the Operations Division is a positive exchange, providing detectives with positive influences on their job performance and is not perceived as a stressor by the detectives.

Interactions and Perceived Interactions between detectives in CID

Respondents were asked to rate how frequently they were called upon to assist other detectives within their assigned unit; 50% of the sample indicated that they are sometimes called upon to assist other detectives assigned to their unit, 50% of the sample indicated that they are very often or always called upon to assist other detectives assigned to their unit. Therefore, the respondents perceive that they are often utilized to assist other detectives in their assigned unit; the assigned unit is an organizational group as defined in the review of literature (Kauffeld, 2006; Lencioni, 2006, Maccoby, 2006; Bierhoff. & Müller, 2005; Chowdury, 2005; Moreson et al., 2005; Kahn, 2003; Cooper-Thomas et al. 2002; Jex, 2002).

The majority, 90% of the respondents, indicated that level of cooperation provided by the members of their assigned unit was above average; in contrast, 47.5% of the respondents rated the cooperation of detectives not assigned to their unit as average or below average. Every respondent indicated that they had been called upon to help other detectives not assigned to other units; the majority of the respondents also indicated that they very rarely received recognition for this assistance.

When the respondents were asked to rate the frequency that other units were called upon to assist their unit, 72.5% of the respondents indicated that other units were rarely called upon to assist them; 65% of the respondents indicated that when other units or detective did provide assistance, there was little recognition given to those who had assisted.

This disparity in perception in relation to individual begin called to assist others and then perceiving that rarely receiving assistance from others is a cause for concern that "silos" are developing within the Criminal Investigation Division. It is important that this fact should be focused on, the detectives are perceiving that the Department is not recognizing the cooperation of the detective units, this can weaken the organizational commitments of the individual detectives, and it can also lead to divisiveness between the units of the Criminal Investigations Division (Lencioni, 2006; Schütz & Bloch, 2006; Obholzer, 2005; Bishop et al., 2005).

The effects of Departmental policies

The majority of respondents indicated that their job performance had been influenced by departmental policies. According to the survey data, 70% of the respondents perceived that departmental policies had a greater tendency to positively influence their job performance rather than negatively influence their job performance. Therefore, the detectives do not perceive the Departmental policies as stressors.

Equipment and job performance

The Prince William County Police Department provides the individual with a mobile phone, pager, and computer to aid them in the performance of their job. The Department currently provides detectives with laptop computers and had previously provided desktop computers; detectives utilize these computers to write reports, organize case files, and communicate with other detectives and members of the Department. At the beginning of this research, the Department provided two different types of mobile phones

to detectives based on the detective's assignment to specific units; the two types were Nextel phones and Cingular mobile phones. However, during the process of the research, the Department switched to a single plan that assigned a Nextel phone to each detective.

A majority of the respondents indicated that they have the proper equipment to perform their job, they also indicated that that they frequently utilize their assigned equipment to perform their job and that the assigned equipment has assisted them in the performance of their job. The most frequently used piece of equipment is the departmentally assigned computer, which was rated as above average by the majority of respondents. 95% of the respondents reported they utilized the computer with high frequency to perform their job. This level of usage has the potential to cause MSDs, CTDs, and Visual RSIs; the Department should monitor and evaluate the design and style of computer equipment in relation to any injury causing risk factors because of the potential development of MSDs, CTDs, and Visual RSIs (Anshel, 2006; Lopez, 2005; Leavitt, 1993).

The next most frequently used piece of equipment is the detective's Nextel/mobile phone, 55% of the respondents rated the quality of their departmentally assigned mobile phone or Nextel phone as above average. This author believes that this survey item was influenced as a result of the departmental decision to purchase Nextel's for all members of criminal investigations division rather than having certain units provided Nextel mobile phones while other units were provided Cingular mobile phones. Previously there was status distinction unintentionally created between the units that were provided with a Nextel phones, the Violent Crimes Unit and the Crimes Against Children

Unit, and the other units within the Criminal Investigations Division and those who were provided with a Cingular wireless phones. Therefore, the potential problems associated with status distinctions have been mitigated by the Prince William County Police Department.

The respondents were then asked to indicate how frequently they have personally purchased items to improve their own job performance. 75% of the respondents had personally purchase items to improve their job performance; then the respondents were asked to list any items that they had personally purchased to improve their job performance. The author's intent was to cause the individual respondent to think about the previous question as to whether they had ever personally purchased an item to improve their job performance. Although not every respondent answered this survey item, the most common responses were office supplies, cameras (digital and film), audio recording devices, memory devices (thumb drives), and holsters. Lack of equipment or inadequate equipment is a stressor and has potential to cause the organization problems, a process to address this is presented in the application section of this study.

Summary of Actual Research

In summary of the actual research it was found that half of the sample had less than 10 years of service in the Prince William County Police Department and the majority of them had less than 10 years experience in the Criminal Investigations Division. In analyzing the perceived effects of the physical environment factors in relation to individual's job performance, it was found that a majority of the sample

believes that the department provides them with adequate satisfactory workspace and that the workspace influences their job performance.

In analyzing the interaction between the detectives and the Identification Bureau, it was found that a majority of the respondents utilize the services of the Identification Bureau to improve the performance of their job. It was also found that a majority of detectives rated the services of the Identification Bureau as above average and equal to or greater than the services provided by other bureaus or units of the Prince William County Police Department.

In analyzing the interaction between the detectives and the Operations Division, it was found that a majority of the respondents utilize the services of the Operations Division to improve the performance of their job. Furthermore, a majority of the detectives believe that the services provided by the Operations Division were above average in comparison to the services provided by other bureaus or units of the Prince William County Police Department.

In analyzing the detective's perceptions of departmental policies in relation to their job performance, it was found that a majority of the respondents believe that their job performance is influenced by departmental policies and based on the data it was shown that respondents had both positive and negative experiences with departmental policies.

In analyzing the detective's interaction with other personnel assigned to the Criminal Investigation Division, it was found that detectives rated other detectives assigned to their unit as above average while rating those not within their unit as lower

than their evaluation of their own unit. A majority of the detectives stated that they were called upon to assist their own unit on a regular basis and that they were often called upon to assist other units; however, the majority of the detectives felt that other units were rarely called upon to assist them.

In analyzing the detective's perception of organizational recognition for assisting other detectives, it was found that a majority of the respondents felt that they were never recognized and it was also perceived that other detectives were rarely or never recognized for assisting them.

In analyzing the detective's perception of their assigned equipment, it was found that a majority of the detectives believe that they are provided with adequate equipment that assists them in the performance of their job; many detectives purchase their own equipment in order to improve their job performance as well.

In analyzing the detective's perception of their assigned computer, it was found that the majority of detectives rate their computer as above average and that they frequently utilize the computer to improve their job performance. In analyzing the detective's perception of their assigned mobile phone, it was found that a majority perceives their phones quality as above average and that they utilize the phone to perform their job and improve their job performance.

With this information, this author hopes to provide the Prince William County Police Department with sound recommendations to address the need of detectives for additional equipment to improve their job performance, the need for an ergonomics

strategy for the Criminal Investigation Division, and the need for a formal recognition program.

CHAPTER FOUR

Application

Implementation

This author is not in a position of management within the Prince William County Police Department and therefore cannot directly apply any of the principles, practices, or recommendations contained within this work to any unit of the Criminal Investigations Division. Based on the findings of this study of the Prince William County Police Department Criminal Investigation Division there are three suggestions made to improve on issues that arose from the research and survey data.

The initial step of all three recommendations requires a baseline measurement of the current job performance of those personnel assigned to the Criminal Investigations Division of the Prince William County Police Department. In order to obtain this baseline measurement, the department must communicate with the individual detective that this will be done to provide a measurement tool to gauge the success or failure of any program or policy created by the Department to improve the job performance of the detectives.

This measurement will collect data for the daily activities that a detectivs engages in and will be collected via self-reporting work logs, where detectives will complete and submit to their supervisors. The management will then collect the completed work logs and submit them to higher levels of management that will analyze the data to determine the average performance levels; the department will then engage in feedback sessions with the detectives to determine the validity of the management's data analysis. The management will provide direct communication of the results of the Departmental study.

Ergonomic Program

It is recommended that the Prince William County Police Department develop an ergonomics program to reduce the risk factors associated with MSDs, CTDs, RSIs, and improve the job performance of the individuals assigned to the Criminal Investigations Division. The data collected from the survey research indicates that detectives, with high frequency, utilize their computers to perform work tasks and improve their job performance; this level of computer usage is documented as a key contributor to the development of MSDs, CTDs, and RSIs (Anshel, 2006; Lopez, 2005; Martin, 2005; Sarkus, 2001; Allie, 1994; Leavitt, 1993). The research indicated that a lack of a good ergonomics program can cost the department in an increased usage of sick leave and increased workers' compensation claims (Brace, 2005; Kincaid, 2005; McDermott et al.,, 2004; Miles, 2000; Allie, 1994).

To implement the ergonomics program to Prince William County Police Department in conjunction with the Prince William County Office of Risk Management must establish a baseline measurement of the current job performance of the individuals assigned to the Criminal Investigations Division and establish a baseline measurement for the number of reported incidents of MSDs, CTDs, and RSIs.

The Office of Risk Management will review their organization's files to determine the amount of time lost and medical costs associated with the incidence of MSDs, CTDs, RSIs or detectives assigned to the Criminal Investigations Division. The Office of Risk Management will conduct interviews with detectives who have been

identified or historically identified as suffering from MSDs, CTDs, or RSIs; these interviews will be conducted to gain an understanding of the individual work-related causes versus external causes and investigate any medical recommendations that were provided to the afflicted individual to reduce or prevent current and future injuries.

Then the Office of Risk Management will conduct a risk analysis and create the current risk profile for the Criminal Investigations Division of the Prince William County Police Department. Properly trained professionals will conduct detailed examinations of the work environments of the Criminal Investigations Division to include all equipment, furniture, and lighting.

The detailed examination of all equipment utilized by detectives to perform their job will include phones, computer keyboards, computer peripherals, and computer monitors. In investigating the phones, the department issued mobile phones and landline phones will be examined. The Office of Risk Management should conduct research on the current data of RSIs associated with the use of text messaging features of mobile phones and research any and all data associated with other mobile phone functions. The ergonomic research data for the current models of mobile phones provided to the detectives and the Office of Risk Management should analyze the current models of landline phones provided to the detectives. A preliminary report should be compiled for all phones currently used by the Criminal Investigations Division; this report must include the total cost of replacing all current equipment models.

The Office of Risk Management is responsible for conducting additional research to determine if alternative, more ergonomically suitable, models exist. The final stage of the examination of the current models of phones utilized by the individuals of the Criminal Investigations Division is to determine the associated costs of all current phones with more ergonomically designed phones.

In the examination of the computer keyboards, the Office of Risk Management will conduct research of the current data available for all MSDs, CTDs, RSIs associated with the use of computer keyboards for any extended periods. It is necessary to determine the average amount of time that a detective works with a computer on a daily basis, it is suggested that a self-reporting log should be utilized rather than direct observation. The Office of Risk Management should research the ergonomic data for the current models of computer keyboards that are provided to the detectives at this time, this research should be compiled with the research of alternative ergonomically designed models. A preliminary report should outline the current models of computer keyboards and compare them to the potential ergonomic alternatives; this report must include the total cost of replacing all current equipment models.

In examining the computer peripherals, including the computer mouse, the Office of Risk Management will conduct research of the current available data on all MSDs, CTDs, RSIs associated with the use of computer peripherals over extended periods. It is necessary to determine the average amount of time that a detective works with a computer peripheral on a daily basis, it is suggested that a self-reporting log should be utilized rather than direct observation. The Office of Risk Management should research

the ergonomic data for the current models of computer peripherals that are provided to the detectives at this time, this research should be compiled with the research of alternative ergonomically designed models. A preliminary report should outline the current models of computer peripherals and compare them to the potential ergonomic alternatives; this report must include the total cost of replacing all current equipment models.

In examining the computer monitors, the Office of Risk Management will conduct research of the current available data on all visual RSIs associated with the use of computer monitors over extended periods; this research should specifically address the impact of screen size and resolution in comparison with long-term vision problems. It is necessary to determine the average amount of time that a detective works with a computer monitor on a daily basis, it is suggested that a self-reporting log should be utilized rather than direct observation. The Office of Risk Management should research the ergonomic data for the current models of computer monitors that are currently provided to the detectives, the monitor size and resolution should be documented; this research should be compiled with the research of alternative ergonomically designed models. A preliminary report should outline the current models of computer monitors and compare them to the potential ergonomic alternatives; this report must include the total cost of replacing all current equipment models.

In examining the computer peripherals, including the computer mouse, the Office of Risk Management will conduct research of the current available data on all MSDs associated with office furniture including chairs and desks. A series of direct observations

will be required to determine whether the detectives are utilizing the current ergonomic features of their workspace. The Office of Risk Management should research the ergonomic data for the current models of office furniture that are currently provided to the detectives, this research should be compiled with the research of alternative ergonomically designed models. A preliminary report should outline the current models of office furniture and compare them to the potential ergonomic alternatives; this report must include the total cost of replacing all current equipment models.

In examining the lighting factor, the Office of Risk Management will research the current data on visual RSIs as they relate to varying levels of light within the office environment. A series of direct tests of the ambient light is required; each detective's office space will be measured with a light meter to determine the average amount of illumination as well as the maximum amount of illumination. The Office of Risk Management will conduct interviews with detectives to determine if they are experiencing any visual RSIs, determine if these visual RSIs existed prior to coming to the Criminal Investigations Division, and determine if the detective utilizes any secondary light sources. In the event that the office environment is found to be deficient in lighting, the Office of Risk Management will research additional adjustable light sources that could be purchased for the individual detectives that require them. The Office of Risk Management shall complete a preliminary report detailing the potential costs associated with the purchase of additional lighting.

The next step in the recommendation is the formation of a ergonomic strategy team consisting of personnel assigned to the Criminal Investigations Division and individuals from the Office of Risk Management. This team will review the preliminary reports, the risk analysis, and the current risk profile of the Criminal Investigations Division. The team will analyze the data and research, evaluate a potential changes to the equipment or office environment, and will make informed recommendations as to the proposed changes. This team will prepare the final report and submit it to the department heads of the Prince William County Police Department, the Prince William County Office of Risk Management, and to the County Executive's Office for approval.

In the event that the new ergonomic plan is adopted, the ergonomic strategy team will then develop an ergonomics-training program; this program will be created with the assistance of the Prince William County Criminal Justice Academy to ensure the most efficient method for the delivery of the training. The ergonomic strategy team will then administer the ergonomics-training program to every department member that is assigned to the Criminal Investigations Division. Upon completion of the training detectives will receive their new office equipment, he detective will be provided the opportunity to provide feedback as to the success of the ergonomics program and the ergonomics-training program.

In order to validate the success or failure of the ergonomics program the team will administer a post-implementation survey of the individual detective's perception of their job performance post-implementation of the ergonomics program; the team will also conduct interviews to verify any survey finding and compare these results to the baseline

performance analysis of job performance. The team will also make inquiries to the Office of Risk Management to determine if there has been a reduction in the number of reported MSDs, CTDs, or RSIs, and will inquire if there has been a post-implementation reduction in the amount of time loss or related medical costs. The team will then conclude with a final report of the program and it will be submitted to the department heads of the Prince William County Police Department, the Office of Risk Management, and to the County Executive's Office.

The ergonomic strategy team would then be placed on inactive status; the Office of Risk Management would become the primary evaluator and facilitator of the ergonomics program. In the event that new personnel are assigned to the Criminal Investigations Division, the Office of Risk Management will have the responsibility for administering the ergonomics-training program to the new personnel. In the event that new equipment will be assigned to the members of the Criminal Investigations Division, the strategic team would be reactivated and the above-mentioned process would begin again. It is the responsibility of the Office of Risk Management to monitor the amount of lost time, usage of sick leave, and medical costs associated with MSDs, CTDs, and RSIs; the Office of Risk Management are responsible for conducting interviews with those afflicted or reporting MSDs, CTDs, or RSIs.

The Office of Risk Management is responsible for conducting follow-up surveys and analysis on a regular basis. The survey should include the original participants to provide a more valid measurement of the amount of change; however, newly assigned detectives can be involved to broaden the survey. Upon completion of the follow-up

surveys, a supplemental report will be submitted to the department heads of the Prince William County Police Department, Office of Risk Management, and the County Executive's Office for review.

Purchasing Non-ergonomic Equipment for Detectives

The survey data indicated that several detectives purchase additional equipment to improve their job performance. The process outlined in the recommendation for the ergonomic program, should serve as a foundation for the process of purchasing non-ergonomic equipment to improve the individual job performance of the detective.

Prior to purchasing any additional non-ergonomic equipment, the department must have an accurate and current baseline measurement for the job performance of individual detectives. The department should conduct a survey of the detectives to determine which items are purchased by detectives to improve their job performance. The department should then compile the survey data and determine the most commonly purchased items. The department should form a group of detectives to review the survey findings and provide feedback as how these items would improve overall job performance; this team would then conduct a cost analysis to determine the total costs associated with purchasing the most commonly listed items.

In the event that these items are approved for purchase, the team would then determine if there is a need for training prior to the dissemination. The department will then conduct follow-up evaluations and surveys to determine the success of the purchased items in relation to the job performance of the detectives; to show validity me follow up surveys will be compared to the baseline survey data.

Formal Recognition Program

The survey data indicates that individuals perceive that they are often called upon to assist other members of the Criminal Investigations Division and are rarely recognized for their contributions to the success of other detectives or units. This study has already documented the importance of formal recognition on an employee's job performance, job satisfaction, and organizational commitment; it is recommended that the Prince William County Police Department develop a new program for formal recognition.

In order to obtain the most accurate data the surveys and analysis should be conducted in by an outside organization, possibly a consulting firm or a local university; it has been documented that the culture of an organization can cause individuals to withhold critical analysis of an organization's policies or procedures when directly confronted by the organization (Chen & Silverthorne, 2005; Kahn, 2003; Miles, 2000).

The research must be completed with a high level of anonymity for the participants, this can be achieved through offsite surveys and interviews, the participants documented only by numbers, and that the knowledge that participation is strictly voluntary. The new study will examine the current state of social interactions between individual detectives and groups, other detectives, supervisory staff, and the senior management of the department. This examination should determine the levels of both positive and negative interactions, the perceived effects of those interactions on individual job performance, and an evaluation of the current system of recognition and rewards.

Upon completion of the initial findings and analysis, the results will be presented to the participants for review and there would be an opportunity for participants to engage in a feedback forum. The feedback forum would be held offsite, at the conclusion of the forum the participants would be asked to assist in the process of developing an alternative to the current recognition system. The new system may require a training program to be developed and administered to the supervisory staff of the Criminal Investigations Division.

The outside source would consult with the Prince William County Criminal Justice Academy; the members of the outside source would initially administer the training program, but after adequate training of the staff of the Prince William County Criminal Justice Academy, the Academy would be responsible for any and all subsequent training. This program would be mandatory for the supervisory staff assigned to the Criminal Investigations Division; in the event a supervisor is assigned after the initial implementation, they will have 30 days upon transfer to complete this required course.

The recognition program would be evaluated by the outside source every quarter for the first year of implementation. This will ensure that the supervisory staff have complied with the training requirements and will give the supervisory staff the opportunity to provide feedback on the program. A series of follow-up surveys and interviews will be conducted by the outside source to determine if the organizational climate has changed, this will be compared to the outside source's original survey data to determine the extent and validity of any change. After the first year of implementation,

the outside source will reduce the frequency of evaluations to occur semiannually and the outside source will compile supplemental reports to track the changes in job performance and employees perceptions of the new departmental recognition program. The results of the outside source's study, recommendations, and supplemental reports will be submitted to the Prince William County Chief of Police and County Executive for review and approval.

Dissemination

To disseminate my findings, I will submit this paper to the Chief of Police, the Commander of the Criminal Investigations Division, and the Senior Staff of the Prince William County Police Department. I will request to meet with the Chief of Police and the Commander of the Criminal Investigations Division for meetings to discuss the findings of my research and request that a copy of this work be held in the library of the Prince William County Criminal Justice Academy. I will designate to the University of Richmond that I desire that this work be permitted for worldwide distribution.

CHAPTER FIVE

Conclusion

Summary

In the beginning of this work it was proposed that stress influences the job performance individual detective. The purpose of this work was to investigate the potential causes of stress of a detective assigned to the Prince William County Police Department and those stressors influenced their job performance. This study outlined the different psychological and sociological concepts of job performance, effectiveness, productivity, utility, predictors of job performance, job satisfaction, and organizational commitment.

The concept of stress was investigated and defined; explanations were provided of the common workplace stressors and their effects on individual were documented. These included the concepts of role ambiguity, role conflict, workload, interpersonal conflict, organizational constraints, and perceive control by the individual. This study reviewed of the current research in reference to police stress included the tenure of officers, the nature of the work in law enforcement, and the organizational culture as an influence on individual.

Significant research was conducted of the science of ergonomics, the history of the science, the practical applications of ergonomics, designs and cost benefits ergonomic programs, and the injuries that result from poor ergonomic designs. These injuries included musculoskeletal disorders (MSDs), cumulative trauma disorders (CTDs), and

repetitive strain injuries (RSIs); specific injuries were documented; these included carpal tunnel syndrome, cubital tunnel syndrome, bursitis, visual RSIs, and tendonitis.

The study examined the psychological and sociological influences of group behaviors and an organizational structure or culture. The key characteristics of groups or reviewed and explained; these included interdependence among members, social interactions between individuals, the perception of membership to the group, and a commonality of purpose. Further examination into the research was conducted as to why organizations fail the individual in relation to the group or organization's structure and common practices to correct organizational deficiencies.

Survey research was conducted the sampling of the detectives assigned to the Criminal Investigations Division of the Prince William County Police Department. The survey gathered information as to the total length of service the individual had with the Prince William County Police Department and the amount of years assigned to the Criminal Investigations Division. The survey then examined the individual's perception of the physical factors of their work environment in relation to their job performance. Respondents were asked to rate the quality of their workspace, the influence that their workspace had on their ability to perform their job, and respondents rated their satisfaction with their workspace.

The survey then examined the respondent's perceptions of the organizational factors of the Prince William County Police Department in relation to their job performance. Respondents were asked to provide information as to the frequency of use, quality of service provided, effectiveness, and service comparisons of the Identification

Bureau and Operations Division in comparison to other units and bureaus of the Prince William County Police Department.

Inquiries were made of the respondents to rate the frequency that individuals were called upon to assist one another in the Criminal Investigations Division, the respondents were then asked to rate the frequency that employees were recognized for assisting others in the performance of duties and job tasks.

The survey concluded with an examination of the individual's perception of their assigned equipment in relation to job performance. The respondents were asked to rate the quality, frequency of use, and impact of their departmentally assigned computer and mobile phone/Nextel in relation to their job performance. Respondents were also asked to provide a response of what type of equipment they had personally purchased to improve their job performance; respondents were requested to provide in detail the items that they had purchased.

Three recommendations were made by this study to the Prince William County Police Department; these recommendations were made as a result of the statistical data collected and the review of current literature in the field of organizational psychology and sociology. These recommendations included the formulation of an ergonomics program, a process for purchasing non-ergonomic equipment for detectives, and a formal recognition program for the members of the Criminal Investigations Division of the Prince William County Police Department.

Personal Learning

In conducting the literary research, I found that this study of ergonomics was the area that provided me the greatest level of new knowledge. Although I had heard of the term ergonomics, I had no concept as to the depth of the scientific research or the financial significance of the ergonomic process. In my own work environment, I began to notice deficiencies in my workstation, which could lead to seriously debilitating musculoskeletal disorders and cumulative trauma disorders, that could potentially lead to work disability and in my career in law enforcement. Therefore, it is my intent to make changes to my work environment and my home environment to reduce the risk factors associated with frequent computer use.

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Appendix

Copy of the Survey Items

Statistical Information

Q_{SI1} – How long have you been assigned to the Criminal Investigation Bureau?

Less than 1 year	1 – 4 years	5 – 9 years	10 – 15 years	More than 15 years

Q_{SI2} – How long have you been employed by the Prince William County Police Department?

1 – 4 years	5 – 9 years	10 – 15 years	15 – 20 years	More than 20 years

Physical Factors and the relation to job performance

Q_{PF1} – How would you rate the influence of your designated workspace in relation to your ability to perform your job?

No influence	Very little	Some influence	Moderate influence	Direct Influence

Q_{PF2} – How would you rate the quality of your workspace?

Very poor	Poor	Average	Good	Very good

Q_{PF3} – What is the extent that your designated work space has to your ability to perform your job?

To no extent	To a small extent	To a moderate extent	To a great extent	To a very great extent

Q_{PF4} – How satisfied are you with your workspace?

Very dissatisfied	Dissatisfied	Neutral	Satisfied	Very satisfied

Q_{PF5} – Has the Department provided you with adequate workspace?

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

Organization Factors and the relation to job performance

Q_{OF1} – How frequently do you use the services of the Identification Bureau to assist you in your job performance?

Never	Almost never	Sometimes	Very often	Always

Q_{OF2} – How would you rate the quality of the services provided by the Identification Bureau?

Very Poor	Poor	Average	Good	Very Good

Q_{OF3} – How would you rate the effectiveness of the Identification Bureau to assist you in the performance of your job?

Very ineffective	Ineffective	Neutral	Effective	Very effective

Q_{OF4} – How would you rate the assistance provided by the Identification Bureau as compared to the other Bureaus/Units?

Much less than others	Somewhat less than others	About the same as others	Somewhat more than others	Much more than others

Q_{OF5} – How frequently do you use the services of the Operations Division to assist you in your job performance?

Never	Almost never	Sometimes	Very often	Always

Q_{OF6} – How would you rate the quality of the services provided by the Operations Division?

Very Poor	Poor	Average	Good	Very Good

Q_{OF7} – How would you rate the effectiveness of the Operations Division to assist you in the performance of your job?

Very ineffective	Ineffective	Neutral	Effective	Very effective

Q_{OF8} – How would you rate the assistance provided by the Operations Division as compared to the other Bureaus/Units?

Much less than others	Somewhat less than others	About the same as others	Somewhat more than others	Much more than others

Q_{OF9} – How would you rate the cooperation of other detectives of your assigned unit as it relates to the performance of your job?

Very Poor	Poor	Average	Good	Very Good

Q_{OF10} – How would you rate the cooperation of other detectives, not of your assigned unit, as it relates to the performance of your job?

Very Poor	Poor	Average	Good	Very Good

Q_{OF11} – Has you job performance ever been negatively influenced by Departmental policies?

Never	Almost never	Sometimes	Very often	Always

Q_{OF12} – Has you job performance ever been positively influenced by Departmental policies?

Never	Almost never	Sometimes	Very often	Always

Q_{OF13} – How frequently are you called upon to assist other detectives in you unit?

Never	Almost never	Sometimes	Very often	Always

Q_{OF14} – How frequently are you called upon to assist other detectives assigned to another unit?

Never	Almost never	Sometimes	Very often	Always

Q_{OF15} – How frequently are you recognized for assisting other units?

Never	Almost never	Sometimes	Very often	Always

Q_{OF16} – How frequently are other units called upon to assist your unit?

Never	Almost never	Sometimes	Very often	Always

Q_{OF17} – How frequently are other units called upon to assist you?

Never	Almost never	Sometimes	Very often	Always

Q_{OF18} – How frequently are other units recognized for assisting you?

Never	Almost never	Sometimes	Very often	Always

Equipment and Job Performance

Q_{E1} – What is the extent your assigned equipment assisted you to perform your job?

To no extent	To a small extent	To a moderate extent	To a great extent	To a very great extent

Q_{E2} – How do you rate the quality of your assigned computer?

Very poor	Poor	Average	Good	Very good

Q_{E3} – How frequently do you utilize your computer to perform you job?

Never	Almost never	Sometimes	Very often	Always

Q_{E4} – To what extent does your use of the computer improve you job performance?

To no extent	To a small extent	To a moderate extent	To a great extent	To a very great extent

Q_{E5} – How do you rate the quality of your assigned mobile phone/Nextel?

Very poor	Poor	Average	Good	Very good

Q_{E6} – How frequently do you utilize your assigned mobile phone/Nextel to perform you job?

Never	Almost never	Sometimes	Very often	Always

Q_{E7} – To what extent does your use of the assigned mobile phone/Nextel improve you job performance?

To no extent	To a small extent	To a moderate extent	To a great extent	To a very great extent

Q_{E8} – Do you have the proper equipment to perform your job?

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

Q_{E9} – What is the extent your assigned equipment hindered you to perform your job?

To no extent	To a small extent	To a moderate extent	To a great extent	To a very great extent

Q_{E10} – How frequently have you personally purchased items to improve your job performance?

Never	Almost never	Sometimes	Very often	Always

Q_{E11} – Please list the items you have personally purchased to improve your job performance?

Biography of the Author

The author, William MacKAY, has been employed with the Prince William County Police Department for nine years and has been assigned to the Criminal Investigations Division for over four years. The author is a Virginia Department of Criminal Justice certified instructor and actively teaches at the Prince William County Criminal Justice Academy. William MacKAY has served his fellow officers as the Vice President of the Police Association of Prince William County. Prior to employment with the police department, the author received his Bachelors of Science in Administration of Justice from George Mason University, Fairfax, Virginia.

Pledge

On my honor I hereby affirm that this work was created by me, the writings and conclusions are entirely my own, I actually completed the research (surveys, interviews, etc.) noted in this thesis and all ideas from others are properly cited and referenced.

Signed: