A study of first responders and burnout as governed by the Occupational Safety and Health Act of 1970 (OSHA) in metropolitan Atlanta, Georgia

Joseph L. Smith Jr.
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ABSTRACT

SOCIAL WORK

SMITH, JR., JOSEPH L.  B.A. UNIVERSITY OF NEW ORLEANS, 2003
M.S.W. CLARK ATLANTA UNIVERSITY, 2007

A STUDY OF FIRST RESPONDERS AND BURNOUT AS GOVERNED BY THE
OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 (OSHA)
IN METROPOLITAN ATLANTA GEORGIA

Committee Chair: Richard Lyle, Ph.D.

Dissertation dated May 2014

This study examined whether first responders in Metropolitan Atlanta experience burnout, taking in consideration factors such as primary role at work, gender, age, marital status, length of employment as a First Responder, and perceived awareness of OSHA regulations in regards to burnout. Participants of the study were comprised of 108 first responders in Metropolitan Atlanta, which included police officers, emergency medical services personnel (EMS), crisis line workers, fire fighters, that were selected utilizing non-probability purposeful sampling among the target population. In sum, first responders in Metropolitan Atlanta experience moderate (64.2%) to high (35.8 %) levels of job burnout. When demographic characteristics were taken in consideration, such as primary role at work, gender, age, marital status, and length of employment as a First Responder, there was no statistically significant relationship established.
A STUDY OF FIRST RESPONDERS AND BURNOUT AS GOVERNED BY THE
OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 (OSHA)
IN METROPOLITAN ATLANTA GEORGIA

A DISSERTATION
SUBMITTED TO THE FACULTY OF CLARK ATLANTA UNIVERSITY
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF DOCTOR OF PHILOSOPHY

BY
JOSEPH L. SMITH, JR.

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ATLANTA, GEORGIA
MAY 2014
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CHAPTER I
INTRODUCTION

During the past twenty-five years, the United States has seen its share of natural and man-made disasters. Events such as Hurricane Katrina, Hurricane Sandy, Yarnell Hill blaze, the terrorist attacks of 9/11, and the Boston Marathon have changed the way that our nation responds to disasters. These disasters have brought an increased focus and appreciation for police, fire, social workers, and emergency medical personnel. These individuals put their lives in harm’s way to ensure that citizens are safe (Department of Homeland Security, 2013).

First Responders are vital in helping to navigate citizens through crisis. First responders “answer the call” in many different types of crisis situations, whether it be a health, mental health, natural disaster, or an act of terror. They are on the scene when citizens need them the most. As the name indicates, “first responders” are first on the scene to assist citizens through their crisis situations (Department of Homeland Security, 2013). First responders are responsible for pre-hospital care, which means those services rendered to emergency patients for analytic, resuscitative, stabilizing or preventive purposes, precedent to reaching the hospital (Loyola Emergency Medical Services System, 2013).

According to the Trauma Center (2013), first responders are exposed to highly stressful events in the course of their routine duties. The Trauma Center noted that there
are specific situations that increase one’s vulnerability to traumatic stress, such as not having control over the volume of calls that they have to respond to, having to respond to additional calls after an especially disturbing call. Other factors that increase one’s vulnerability to traumatic stress include; being in the service for a long time, being in a situation where one feels helpless in the face of overwhelming demands, the suicide of a peer, being at serious risk oneself, witnessing horrifying things, experiencing the death of a child in the line of duty, responding to a call for a victim who is known to the responder. There are some organizational factors that can increase one’s vulnerability to traumatic stress such as, working without the support of administration, or having administration question one’s actions in an investigation. The aforementioned can lead to compassion fatigue, vicarious trauma, and job burnout.

On the job trauma and stress can have a debilitating effect on first responders. Pop culture recognized the plight of first responders walking the line between internalization and externalization of client issues in the 2013 movie, “The Call.” In the movie, a veteran operator experiences a debilitating bout of self-doubt after making a thoughtless mistake that results in the brutal murder of a young girl at the hands of a sadistic prowler. Six months later, Jordan (Hale Berry) is taking a group of young trainees on a tour of the Hive when an inexperienced operator receives a frantic call from Casey, a terrified teen who is locked in the trunk of a speeding car after being abducted in a parking lot. Jordan is debilitated and overcome by anxiety, because of her past traumatic experience in which a young girl was killed on the line with her (Fandango, 2013).

First Responders deal with traumatic events daily. That constant exposure to traumatic events lead to the first responders loosing compassion, this loss of compassion
is called compassion fatigue. Compassion Fatigue is also known as secondary traumatic stress (STS), a condition characterized by a gradual lessening of compassion over time. It is common among individuals who work directly with trauma victims such as nurses, psychologists, and first responders. It was first diagnosed in nurses in the 1950s. Sufferers can exhibit several symptoms including hopelessness, a decrease in experiences of pleasure, constant stress and anxiety, sleeplessness or nightmares, and a pervasive negative attitude. This can have detrimental effects on individuals, both professionally and personally, including a decrease in productivity, the inability to focus, and the development of new feelings of incompetency and self-doubt (Compassion Fatigue Awareness Project, 2013).

According to the Compassion Fatigue Awareness Project (2013), day in and day out, workers struggle to function in care giving environments that constantly present heart wrenching, emotional challenges. Affecting positive change in society, a mission so vital to those passionate about caring for others, is perceived as elusive, if not impossible. This painful reality, coupled with first-hand knowledge of society's flagrant disregard for the safety and well-being of the feeble and frail, takes its toll on everyone from fulltime employees to part-time volunteers. Eventually, negative attitudes prevail.

The term Compassion Fatigue (CF) was popularized by Figley as a less stigmatizing way to describe secondary traumatic stress (STS) and is used interchangeably in the literature. Burnout is typically described as the result of non-traumatic but stressful work conditions such as long hours and overwhelming workload, and typified by symptoms of emotional exhaustion, depersonalization, and reduced feelings of personal accomplishment (Figley, 2005).
Constant exposure to trauma can have neurological implications for First Responders. Vicarious Trauma is defined as a transformation in the helper’s inner sense of identity and existence that results from utilizing controlled empathy when listening to clients’ trauma-content narratives. In other words, Vicarious Trauma is what happens to your neurological (or cognitive), physical, psychological, emotional and spiritual health when you listen to traumatic stories day after day or respond to traumatic situations while having to control your reaction (Vicarious Trauma Institute, 2012).

According to Maslach et al., (2001), job burnout is a prolonged response to chronic emotional and interpersonal stressors on the job, and is defined by the three dimensions of exhaustion, cynicism, and inefficacy. Research has established the complexity of the construct, and places the individual stress experience within a larger organizational context of people’s relation to their work. The relationship that people have with their work, and the difficulties that can arise when that relationship goes aslant, has been long recognized as a significant phenomenon of the modern age. The use of the term burnout for this phenomenon began to appear with some regularity in the 1970s in the United States, especially among people working in the human services. Burnout can occur across all disciplines, in this study the researcher examined burnout among first responders as governed under The Occupational Safety and Health Act (OSHA) of 1970.

According to Sanders (2012), burnout is the "exhaustion of physical or emotional strength or motivation usually as a result of prolonged stress or frustration" that interferes with every aspect of a first responder’s life." When first responders reach the burnout point, safety decisions can be neglected and lead to harmful results. The general public should be concerned with the increased stress that first responders endure because it can
impact their capacity to help in crisis situations. It is not a surprise that first responders work in stress-filled environments that can lead to job burnout. It is important to examine the phenomenon of burnout, because if first responders can be educated on the signs and symptoms of burnout, they can get help.

The question must be proposed, what impact does increased exposure to crisis situations have on first responders, and does that aforementioned impact increase the likelihood of a first responder to experience burnout. Stellman et al. (2008) found that 11.1% of rescue workers met criteria for probable post-traumatic stress disorder (PTSD), 8.8% met criteria for probable depression, 5.0% met criteria for probable panic disorder, and 62% met criteria for substantial stress reaction. These individuals, though heroic, are still human and are affected by the increased exposure to crisis situations.

What safeguards are there to protect first responders from and help them to cope with their stressful environment? More specifically what safeguards are there in place to prevent the phenomenon of job burnout? OSHA requires employers to comply with hazard-specific safety and health standards. In addition, pursuant to Section 5(a) (1) of OSHA, employers must provide their employees with a workplace free from recognized hazards likely to cause death or serious physical harm (OSHA.gov, 2013).

Statement of the Problem

First responders are vital in helping to keep citizens safe. According to Kahn and Byosiere (1992) job stress has been recognized as a significant occupational hazard that can impair physical health, psychological wellbeing, and work performance. First
responders are human, if they are going through a "personal crisis" or have had increase stress or demands, it can impact their job performance.

First responders work in stressful environments, and the job stress can impact the service delivery to the citizen in crisis. The quality of job performance is seriously threatened when professionals become burned-out. One of the characteristic for being a first responder is being alert to "answer the call" of citizens in need. If the helper is not able to focus or are not at their best due to job burnout, it can be the difference between life and death for a citizen in crisis (Kahn & Byosiere, 1992).

The primary focus of this study was to ascertain the level of job burnout that first responders in Metropolitan Atlanta experience. The study measured the level of emotional exhaustion, depersonalization, and personal accomplishment in regards to burnout. Lastly, this study measured first responders’ perceived awareness of OSHA regulations impacts their level of job burnout.

First responders are routinely exposed to traumatic events in the course of their duties. As such, they are at increased risk for long-term problems from traumatic stress (Trauma Center, 2013). Psychological trauma in the form of acute stress (short periods of high levels of stress) and chronic stress (prolonged periods of stress) is an occupational hazard routinely faced by First Responders (First Responders Foundation, 2013).

A stressed or burned out worker has many consequences. Stressed and burned out workers are also more likely to be unhealthy, poorly motivated, less productive and less safe at work, and their organizations are less likely to succeed in a competitive market. By some estimates work-related stress costs the national economy a staggering amount in sick pay, lost productivity, health care and litigation costs (Palmer et al., 2004).
According to Maslach et al. (2001) burnout has been associated with various forms of job withdrawal absenteeism, intention to leave the job, and actual turnover. However, for people who stay on the job, job burnout leads to lower productivity and effectiveness at work. Consequently, it is associated with decreased job satisfaction and a reduced commitment to the job or the organization. The aforementioned could be devastating for citizen.

Job burnout impacts many systems in a first responder’s life. Burke and Greenglass (2001) postulated that there is also some evidence that job burnout has a negative “spillover” effect on people’s home life. People who are experiencing job burnout can have a negative impact on their colleagues, both by causing greater personal conflict and by disrupting job tasks. Thus, burnout can be “contagious” and perpetuate itself through informal interactions on the job. The impact of job burnout is not singular or isolated with an individual, its effects are global.

There are three categories or types of job burnout that will be discussed; emotional exhaustion, depersonalization, and personal accomplishment. The three categories of job burnout were theorized originally by Maslach & Leiter (2008). The aforementioned indicators combined or alone interfere with one’s job performance and attitude (Maslach & Leiter, 2008).

The first type of job burnout is emotional exhaustion, how draining your job is. It pertains to how used up you feel after work. This can feel like apathy, lethargy, low energy, depression, and more. It is a lessening of your motivation and a lack of desire to do things. There is a nagging sense of working too hard. It may feel like you can never get ahead or catch up. This strain results from supporting too many projects, tasks or
people. Emotional exhaustion may fluctuate up and down, but once you are there, it is
difficult to just let it go (Maslach & Leiter, 2008; Maslach, Jackson, & Leiter, 1996;
Maslach, & Schaufeli, 2001; Albany Capital Region Chapter, 2013).

The second is depersonalization. Depersonalization is turning people into objects,
because it’s easier to think of them as a number or faceless being. This is a method of
getting space from others. A mild version of this is like getting crowded in an elevator,
and instead of realizing how packed you are next to someone; you avoid having an
interaction with them. You just keep them as a nameless, faceless being. This withdrawal
could be the result of pressure from bosses, peers, employees or customers that you feel
very intensely (Maslach & Leiter, 2008; Maslach, Jackson, & Leiter, 1996; Maslach, &
Schaufeli, 2001; Albany Capital Region Chapter, 2013).

Lastly is personal accomplishment. This is your sense of achievement, the feeling
that you are accomplishing things that are worthwhile. This often results from how good
you feel about what you do. When your values and the organizations values and goals are
aligned, there is a sense of success about what you are doing. When burning out in this
area, one feels like they are not doing something that makes a difference. It feels like you
aren’t contributing. You don’t feel like a problem solver, and motivation diminishes
(Maslach & Leiter, 2008; Maslach, Jackson, & Leiter, 1996; Maslach, & Schaufeli, 2001;
Albany Capital Region Chapter, 2013).

OSHA does not directly recognize the phenomenon of burnout, but does
recognize the impact of stress on job performance. In the interest of the health and safety
of the emergency responders and workers, the agency provides information on reducing
the risks associated with critical incident stress. Critical incidence stress shares some of the components of burnout (OSHA, 2013).

According to OSHA (2013), workers responding to emergency events and or disasters will see and experience events that will strain their ability to function. These events, which include having to witness or experience tragedy, death, serious injuries and threatening situations, are called “critical incidents.” The physical and psychological well-being of those experiencing this stress, as well as their future ability to function through a prolonged response, will depend upon how they manage this stress. Though OSHA recognizes critical incident stress, it has no standards that apply to the hazards associated with the aforementioned.

Purpose of the Study

The purpose of the study was to explain whether first responders in Metropolitan Atlanta experience burnout, taking in consideration demographic factors such as primary role at work, gender, age, marital status, and length of employment as a First Responder. The study also measured the level of emotional exhaustion, depersonalization, and personal accomplishment in regards to burnout. Lastly, this study measured if their perceived awareness of OSHA regulations impacts their level of job burnout. The participants of the study were composed of first responders in Metropolitan Atlanta, which included police officers, emergency medical services personnel (EMS), crisis line workers, fire fighters, and social workers that are protected under the Occupational Safety and Health Act of 1970.
Research Questions

The research questions of the study were as follows:

1. Is there job burnout among first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970?

2. Is there a relationship between first responder perceived awareness of OSHA regulations and job burnout among first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970?

3. Is there a relationship between the years of employment and job burnout among first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970?

4. Is there a relationship between the gender of first responder and job burnout among first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970?

5. Is there a relationship between age and job burnout among first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970?

6. Is there a relationship between marital status and job burnout among first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970?

Hypothesis

1. There is no job burnout among first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970.
2. There is no statistically significant relationship between first responder perceived awareness of OSHA regulations and job burnout among first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970.

3. There is no statistically significant relationship between the years of employment and job burnout among first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970.

4. There is no statistically significant relationship between the gender of first responder and job burnout among first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970.

5. There is no statistically significant relationship between age and job burnout among first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970.

6. There is no statistically significant relationship between marital status and job burnout among first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970.

Significance of the Study

Rabjohn (2013) postulated in his article, The Human Cost of Being a ‘First Responder,’ that being a first responder comes with a cost. He discussed the impact on those individuals tasked with dealing with the human cost of disasters is rarely considered. Emergency service personnel are certainly considered a vital component of any response; heroes when outcomes are successful, valiant when they do their best but
fail, and occasionally incompetent when the media think it makes a good story. Human suffering carries a cost for both responders and society, and one of the “costs” is Post Traumatic Stress Disorder which can lead to individual not being able to function at their full capabilities, which can lead to job burnout.

Zellmer (2005) stated that occupational stress and burnout are of great concern in many helping professions. Examining the phenomenon of burnout and various contributing factors can lead to the discernment of educational strategies to minimize the potential for worker burnout. The implications of this study should enable first responders to gain insight on the phenomenon of job burnout and to take action to prevent it.

This study will add to the research on the issue of job burnout and its relationship to Occupational Safety and Health Act of 1970, thus contributing to a prominent vacuum in the literature. Data gathered during this study will also contribute to learning more about first responder job burnout, particularly the demographic differences between among them. This study is also significant, because it takes into account factors such as emotional exhaustion, depersonalization, and personal accomplishment individually and collectively in regards to the examination of the phenomenon burnout.
CHAPTER II
REVIEW OF LITERATURE

The purpose of this review of the literature was to lay a scholarly foundation in order to establish a need for the study. This chapter is a review of the current literature on first responders and burnout as governed by the Occupational Safety Act of 1970 (OSH Act). This review covers the Occupational Safety Act of 1970, first responders, and the phenomenon called burnout. Burnout measurement instruments were also reviewed in order to establish an understanding for the data analysis from the response of first responders who respond to crisis situations in Metropolitan Atlanta, GA.

Brief History of Work Safety in the United States

According to Aldrich (2010), the dangers of work are usually measured by the number of injuries or fatalities occurring to a group of workers, usually over a period of one year. Over the past century such measures reveal a striking improvement in the safety of work in advanced countries. In part this has been the result of the gradual shift of jobs from relatively dangerous goods production such as farming, fishing, logging, mining, and manufacturing into such comparatively safe work as retail trade and services. But even the dangerous trades are now far safer than they were in 1900. Mining remains a comparatively risky activity.

Public efforts to improve safety date from the very beginnings of industrialization.
States established railroad regulatory commissions as early as the 1840s. But while most of the commissions were intended to improve safety, they had few powers and were rarely able to exert much influence on working conditions. Similarly, the first state mining commission began in Pennsylvania in 1869, and other states soon followed. Yet most of the early commissions were ineffectual and as noted safety actually deteriorated after the Civil War. Factory commissions also dated from but most were understaffed and they too had little power (Aldrich, 2010).

The most successful effort to improve work safety during the nineteenth century began on the railroads in the 1880s as a small band of railroad regulators, workers, and managers began to campaign for the development of better brakes and couplers for freight cars. In response George Westinghouse modified his passenger train air brake in about 1887 so it would work on long freights, while at roughly the same time Ely Janney developed an automatic car coupler. For the railroads such equipment meant not only better safety, but also higher productivity and after 1888 they began to deploy it. The process was given a boost in 1889-1890 when the newly formed Interstate Commerce Commission (ICC) published its first accident statistics. They demonstrated conclusively the extraordinary risks to trainmen from coupling and riding freight. During 1893 Congress responded, passing the Safety Appliance Act, which mandated use of such equipment. It was the first federal law intended primarily to improve work safety, and by 1900 when the new equipment was widely diffused, risks to trainmen had fallen dramatically (Aldrich, 2010).

During the years between 1900 and World War I, a rather strange band of Progressive reformers, muckraking journalists, businessmen, and labor unions pressed for
changes in many areas of American life. These years saw the founding of the Federal Food and Drug Administration, the Federal Reserve System and much else. Work safety also became of increased public concern and the first important developments came once again on the railroads. Unions representing trainmen had been impressed by the safety appliance act of 1893 and after 1900 they campaigned for more of the same. In response Congress passed a host of regulations governing the safety of locomotives and freight cars. While most of these specific regulations were probably modestly beneficial, collectively their impact was small because unlike the rules governing automatic couplers and air brakes they addressed rather minor risks (Aldrich, 2010).

During 1910, Congress also established the Bureau of Mines in response to a series of disastrous and increasingly frequent explosions. The Bureau was to be a scientific, not a regulatory body and it was intended to discover and disseminate new knowledge on ways to improve mine safety. Far more important were new laws that raised the cost of accidents to employers. During 1908 Congress passed a federal employers’ liability law that applied to railroad workers in interstate commerce and sharply limited defenses an employee could claim. Worker fatalities that had once cost the railroads perhaps $200 now cost $2,000. Two years later in 1910, New York became the first state to pass a workmen’s compensation law. This was a European idea. Instead of requiring injured workers to sue for damages in court and prove the employer was negligent, the new law automatically compensated all injuries at a fixed rate. Compensation appealed to businesses because it made costs more predictable and reduced labor strife. To reformers and unions it promised greater and more certain benefits. Samuel Gompers, leader of the American Federation of Labor had studied the
effects of compensation in Germany. He was impressed with how it stimulated business interest in safety, he said. Between 1911 and 1921 forty-four states passed compensation laws (Aldrich, 2010).

The sharp rise in accident costs that resulted from compensation laws and tighter employers’ liability initiated the modern concern with work safety and initiated the long-term decline in work accidents and injuries. Large firms in railroading, mining, manufacturing and elsewhere suddenly became interested in safety. Companies began to guard machines and power sources while machinery makers developed safer designs. Managers began to look for hidden dangers at work, and to require that workers wear hard hats and safety glasses. They also set up safety departments run by engineers and safety committees that included both workers and managers. During 1913 companies founded the National Safety Council to pool information. Government agencies such as the Bureau of Mines and National Bureau of Standards provided scientific support while universities also researched safety problems for firms and industries (Aldrich, 2010).

The economic boon and associated labor turnover during World War II worsened work safety in nearly all areas of the economy, but after 1945 accidents again declined as long-term forces reasserted themselves. In addition, after World War II newly powerful labor unions played an increasingly important role in work safety. During the 1960s however economic expansion again led to rising injury rates and the resulting political pressures led Congress to establish the Occupational Safety and Health Administration (OSHA) and the Mine Safety and Health Administration in 1970. The continuing problem of mine explosions also led to the foundation of the Mine Safety and Health Administration (MSHA) that same year. The work of these agencies had been
controversial but on balance they have contributed to the continuing reductions in work injuries after 1970 (Ferris, Rosen, & Barnum, 1995).

**Occupational Safety Health Act (OSH Act) of 1970**

The Occupational Safety and Health Act of 1970 (OSH Act) is administered by the Occupational Safety and Health Administration (OSHA). In general, the OSH Act covers all employers and their employees in the 50 states, the District of Columbia, Puerto Rico, and other U.S. territories. Coverage is provided either directly by the federal Occupational Safety and Health Administration or by an OSHA-approved state job safety and health plan. Employees of the U.S. Postal Service also are covered (U.S. Department of Labor, 2013).

The Act defines an employer as any “person engaged in a business affecting commerce that has employees, but does not include the United States or any state or political subdivision of a State.” Therefore, the Act applies to employers and employees in such varied fields as manufacturing, construction, long shoring, agriculture, law and medicine, charity and disaster relief, organized labor, and private education. The Act establishes a separate program for federal government employees and extends coverage to state and local government employees only through the states with OSHA-approved plans (U.S. Department of Labor, 2013).

The Act assigns OSHA two regulatory functions: setting standards and conducting inspections to ensure that employers are providing safe and healthful workplaces. OSHA standards may require that employers adopt certain practices, means, methods, or processes reasonably necessary and appropriate to protect workers on the
job. Employers must become familiar with the standards applicable to their establishments and eliminate hazards (U.S. Department of Labor, 2013).

Compliance with standards may include implementing engineering controls to limit exposures to physical hazards and toxic substances, implementing administrative controls, as well as ensuring that employees have been provided with, have been effectively trained on, and use personal protective equipment when required for safety and health, where the former controls cannot be feasibly implemented. Employees must comply with all rules and regulations that apply to their own actions and conduct. Even in areas where OSHA has not set forth a standard addressing a specific hazard, employers are responsible for complying with the OSH Act’s “general duty” clause. The general duty clause [Section 5(a)(1)] states that each employer “shall furnish a place of employment which is free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees” (U.S. Department of Labor, 2013).

The Act encourages states to develop and operate their own job safety and health programs. OSHA approves and monitors these “state plans,” which operate under the authority of state law. There are currently 27 OSHA State Plan States, of which 22 states and jurisdictions operate complete state plans (covering both the private sector and state and local government employees) and four (Connecticut, New Jersey, New York, and the Virgin Islands) that cover state and local government employees only. States with OSHA-approved job safety and health plans must set standards that are at least as effective as the equivalent federal standard. Most, but not all of the state plan states, adopt standards identical to the federal ones (U.S. Department of Labor, 2013).

OSHA also has federal standards. Federal standards are grouped into four major
categories: general industry (29 CFR 1910); construction (29 CFR 1926); maritime
(shipyards, marine terminals, long shoring (29 CFR 1915-19); and agriculture (29 CFR
1928). While some standards are specific to just one category, others apply across
industries. Among the standards with similar requirements for all sectors of industry are
those that address access to medical and exposure records, personal protective equipment,
and hazard communication (U.S. Department of Labor, 2013).

Under the act the regulatory agency has access to medical and exposure records. This regulation provides a right of access to employees, their designated representatives, and OSHA to relevant medical records, including records related to that employee’s exposure to toxic substances. OSHA also regulates the use of personal protective equipment. This standard, which is defined separately for each segment of industry except agriculture, requires employers to provide employees with personal equipment designed to protect them against certain hazards and to ensure that employees have been effectively trained on the use of the equipment. This equipment can range from protective helmets to prevent head injuries in construction and cargo handling work, to eye protection, hearing protection, hard-toed shoes, special goggles for welders, and gauntlets for iron workers (U.S. Department of Labor, 2013).

The administration also has a regulatory function called hazard communication. This standard requires manufacturers and importers of hazardous materials to conduct hazard evaluations of the products they manufacture or import. If a product is found to be hazardous under the terms of the standard, the manufacturer or importer must so indicate on containers of the material, and the first shipment of the material to a new customer must include a material safety data sheet (MSDS). Employers must use these MSDSs to
train their employees to recognize and avoid the hazards presented by the materials (U.S. Department of Labor, 2013).

The Act grants employees several important rights. Among them are the right to file a complaint with OSHA about safety and health conditions in their workplaces and, to the extent permitted by law, have their identities kept confidential from employers; contest the amount of time OSHA allows for correcting violations of standards; and participate in OSHA workplace inspections. Private sector employees who exercise their rights under OSHA can be protected against employer reprisal, as described in Section 11I of the OSH Act. Employees must notify OSHA within 30 days of the time they learned of the alleged discriminatory action. OSHA will then investigate, and if it agrees that discrimination has occurred, OSHA will ask the employer to restore any lost benefits to the affected employee. If necessary, OSHA can initiate legal action against the employer. In such cases, the worker pays no legal fees. The OSHA-approved state plans have parallel employee rights provisions, including protections against employer reprisal (U.S. Department of Labor, 2013).

All covered employers are required to display and keep displayed the OSHA “Job Safety and Health: It’s the Law” poster unless the employer’s workplace is located in a state that operates an OSHA-approved state plan. There is a separate poster for Federal agencies. The OSHA poster must be displayed in a conspicuous place where employees can see it. Reproductions or facsimiles of the poster shall be at least 8 ½ by 14 inches with 10 point type. This poster is also available in Spanish. Posting of the notice in languages other than English is not required. Each state or territory with a state plan has a poster that employers covered by the plan must display. State plan OSHA offices can be
contacted to obtain a copy. Contact your Federal OSHA office or your state plan office
to determine coverage (U.S. Department of Labor, 2013).

Employees, former employees and their representatives have the right to review
the OSHA Form 300, Log of Work-related Illnesses and Injuries, in its entirety.

Employers are required to post the Summary of Work-related Injuries and Illnesses
(Form300A) in a visible location so that employees are aware of the injuries and illnesses
that occur in their workplace. Employers are required to post the Summary Form (300A)
by February 1 of the year following the year covered by the form and keep it posted until
April 30 of that year (U.S. Department of Labor, 2013).

OSHA-approved state plan states must adopt occupational injury and illness
recording requirements that are substantially identical to the Federal OSHA requirements.
Since each state plan’s requirements may differ slightly, the Federal OSHA requirements
are described below. Employers with 10 or fewer employees at all times during the last
calendar year do not need to keep OSHA injury and illness records unless OSHA or the
Bureau of Labor Statistics (BLS) informs them in writing that records must be kept.
However, all employers covered by the OSH Act must report to OSHA any workplace
incident that results in a fatality or the hospitalization of three or more employees (U.S.
Department of Labor, 2013).

There are some exceptions for employers in certain industries. If an employer’s
business is in an industry that is classified as low hazard, the employer does not need to
keep records unless OSHA or the BLS asks them to do so in writing. The partial industry
classification exemption applies to individual establishments. If a company has several
establishments engaged in different classes of business activities, some of the company’s
establishments may be required to keep records, while others may be exempt. Industries currently designated as low-hazard include: auto dealers, apparel and accessory stores, eating and drinking places, finance, insurance, and real estate industries. Certain service industries, such as personal and business services, medical and dental offices, and legal, educational, and membership organizations (U.S. Department of Labor, 2013).

An early study by Dudley (1983) investigated the impact of the Occupational Safety and Health Administration upon the national death rate, injury rate and days lost due to work related injuries rate. The study also examined OSHA’s enforcement history to determine if this agency has grown sensitive to business to the extent that it has become less vigilant over the years.

To assess OSHA’s impact on the death rate, the injury rate and the days lost from work related injuries rate, an Interrupted Time Series Analysis was performed for a period of twenty-eight years, 1954 through 1981. In this analysis two kinds of impacts were explored: (1) the immediate effect of OSHA, and (2) the cumulative effect of OSHA (Dudley, 1983).

Dudley (1983) accessed OSHA’s vigilance over the years, the agency’s enforcement activities inspections, citations, violations and penalties over the period of a decade, 1972 through 1981, were examined and compared. The behavior of these enforcement activities was then analyzed taking into consideration those factors in the agency’s operating environment, which could have influenced them.

The author concluded that OSHA’s impact on the death rate is that OSHA contributed to an immediate reduction of about one death per 100,000 workers, but there is no evidence of a cumulative effect. Finally, the days lost due to work related injuries
rate shows a reduction of .945 or almost one day lost per 100,000 workers per year attributable to OSHA as well as an immediate effect of an increase of 5.464 days lost per 100,000 workers. The findings also showed that OSHA has not grown less enthusiastic or less vigilant over the years. The agency has taken a softer approach towards its enforcement activities but it has become more thorough in its inspections and more exacting in cases of serious violations (Dudley, 1983).

Honghong (2010) evaluated the inspection effectiveness of the U.S. OSHA process safety management (PSM) standard using statistical correlation test. A total of 6578 citations of past 1277 OSHA PSM inspections from 1992 to 2006 were quantitatively compared with the findings of the U.S. Chemical Safety and Hazard Investigation Board (CSB) investigations on root and contributing causes of 19 major chemical accidents. The researcher used Nonparametric Spearman’s coefficient of rank correlation tests showed a moderately strong agreement between OSHA PSM inspection citations and CSB findings at p < .01 significant level, and the degree of agreement increased with time.

The results of the study suggested that past OSHA PSM inspections had cited the problems that were the accident root causes, and the effectiveness of PSM citations has been improved as more inspections were conducted since the standard promulgation. However, factors such as standard coverage, inspection frequency, inspection resources allocation, and inspection strategy, were critical for effective PSM standard enforcement and implementation. The researcher indicated that future studies should include more aspects of PSM citations and CSB accident investigation data for better evaluation of
inspection effectiveness. The results of this study may be valuable to the PSM enforcement policy makers (Honghong, 2010).

Problem, Crisis, and Emergency

First responders respond to different types of situations. It is important to define or differentiate between a problem, crisis, and emergency. According to Washington State Department of Social and Health Services (2012) a crisis is a disruption or breakdown in a person's or normal or usual pattern of functioning. A crisis cannot be resolved by a person's customary problem-solving resources/skills. It is important to distinguish a crisis from a problem or emergency.

A problem may create stress and be difficult to solve, the family or individual is capable of finding a solution. Consequently, a problem that can be resolved by an individual or a family without outside intervention is not a crisis. Oftentimes, a problem may seem like a crisis to a family or individual under stress and not thinking clearly. Interventions that establish trust and provide reassurance, advice or a referral by the caseworker may resolve such a problem (Washington State Department of social and Health Services, 2012).

According to Greenwald (2011), any event can be a crisis if it wipes out our ability to make sense out of what is happening. We become bereft of means for exercising some form of control on our lives. We feel helpless; the victim of events beyond reason and certainly beyond our control. It is only after we regain some sense of understanding and some sense of control that the crisis is reduced to something
manageable. The basic elements of a crisis are: A stressful situation, difficulty in coping, and the timing of intervention.

First Responders

Since the beginning of time, people have been responding to different crisis, and there are people who have lent a helping hand. Merriam-Webster Dictionary (2013) defines a first responder as a person who is among those responsible for going immediately to the scene of an accident or emergency to provide assistance. In this millennium generation “on the scene” can be applied to workers who have pre-hospital contact with an individual to help an individual when they are experiencing a crisis.

According to the Foundation for First Responders and Fire Fighters (2013), first Responders are those brave men and women who respond to emergencies in our communities and protect the public. They include firefighters, police officers, EMTs and paramedics, search & rescue teams, emergency management personnel, and others. Many of these first responders are paid professionals, while others are volunteers. Every community, from the largest metropolitan area to the smallest rural town, depends on their first responders to save lives and keep the peace during emergencies ranging from a medical call involving one victim, to large-scale disasters that affect entire states for months.

Most first responders are certified first responders.” According to Department of Health (2012) certified first responder is a person who has completed a course and received certification in providing pre-hospital care for medical emergencies. They have more skill than someone who is trained in basic first aid but they are not a substitute for
advanced medical care rendered by emergency medical technicians (EMTs), emergency physicians, nurses, or paramedics. First responder courses cover cardiopulmonary resuscitation (CPR), automated external defibrillator usage, spinal and bone fracture immobilization, oxygen and, in some cases, emergency childbirth as well as advanced first aid.

The following section will highlight the job roles of the targeted population of the research study; social workers, fire fighters, police officers, crisis line workers, and EMS.

Social Workers

There are two primary types of social workers: direct-service social workers, who help people, solve and cope with problems in their everyday lives, and clinical social workers, who diagnose and treat mental, behavioral, and emotional issues. Social workers work in a variety of settings, including mental health clinics, schools, hospitals, and private practices. They generally work full time and may need to work evenings and weekends. A bachelor's degree is required for most direct-service social work positions, but some positions and settings require a master's degree. Clinical social workers must have a master's degree. Licensure for social workers varies by state. Clinical social workers must be licensed. The median annual wage of social workers was $42,480 in May 2010 (U.S. Bureau of Labor Statistics, 2012).

When one thinks of a first responder, most often one thinks about fire fighter, ems, and police officers, but there are other types of first responders. Social workers and counselors are important groups of first responders. Social workers are vital in the process of removing children that are neglected from toxic homes. Social workers and
counselors also serve as clinicians alongside other first responders around the country providing mental health services (Cacciatore, 2011).

Every day in the United States, over half a million social workers provide services to people with health, mental health, and substance abuse problems in a fragmented system that emphasizes disease treatment over prevention. Powerful issues including health inequities, population, aging, globalization, natural disaster, war, and economic downturn—make the need for preventive approaches more critical than ever (Marshall, 2012).

Social workers play a vital role in the intervention of removing children from dangerous and inhumane living situations. The aforementioned intervention not only saves children’s lives, but they also improve the quality of life of the child. Davidson-Arad (2005), conducted a longitudinal study of the psychological, physical, social, and cultural quality of life of 93 children at risk who were removed from home or kept at home. Assessments were made by social workers who made the decisions, at three points of time.

The findings showed that the quality of life of the children who were removed from home improved incrementally over the 15 months, while that of the children who stayed at home remained at the same low level as at the first measure. The findings suggest that removing children at risk from abusive or neglectful home can improve their quality of life, while leaving them in such homes generally does not. Pending further research on larger samples and using multiple sources of information, they also suggest that it may be worth reexamining current policy on removal (Davidson-Arad, 2005).
Disaster mental health work requires additional skills and an enlarged vision of the human condition that values the resiliency and strengths that people have. Using models most social workers are trained to apply in clinical work is a potentially dangerous trap. People are likely to be perceived by professionals as victims or broken people, and lacking needed strength and resilience if that clinical lens is automatically or universally applied to people who experience traumatic incidents such as terrorism, natural disasters, or the unexpected or violent death of a family member, peer, or significant other (Carp, 2010).

**Police Officers**

Police officers protect lives and property. Law enforcement officers' duties depend on the size and type of their organizations. Police and detective work can be physically demanding, stressful, and dangerous. Police officers have one of the highest rates of on-the-job injuries and fatalities. Education requirements range from a high school diploma to a college degree or higher. Most police and detectives must graduate from their agency's training academy before getting on-the-job training. Candidates must be U.S. citizens, usually at least 21 years old, and meet rigorous physical and personal qualifications. The median annual wage of police and detectives was $55,010 in May 2010 (U.S. Bureau of Labor Statistics, 2012).

According to Winship (2009), police officers are vital in crisis situations. Disaster situations draw crowds. There will be some people hoping for a glimpse of the unfolding drama. Family members and friends of the victims will show up, hoping to glean information about their loved ones. The people involved in the situation will also be
milling around, sometimes while injured or in shock. The police will cordon off areas and work to keep crowds under control. Officers might go from house to house searching for the injured or needy. They can offer transportation, emergency medical care, and be a bridge between citizens and rescue personnel. They can check the credentials to see if someone really needs to be in the area. They can warn people when electric wires are on the ground, when dangerous pests are lurking around or when unstable people are nearby.

Many disasters wipe out infrastructures such as electricity, making an unsafe situation for both traffic and pedestrians. The police can close unsafe roads where downed wires, trees or flood situations might make travel unsafe. They can direct citizens through non-working traffic lights. They can re-route random traffic to safer roads and try to keep out all unnecessary traffic away. They can put roadblocks in the areas where the crisis is still underway (Winship, 2009).

Disaster situations often lead to family members being separated from each other. Elderly and single people are at risk if they have no one to check on them. If these citizens randomly wander around, chaos can result. The police can set up search teams and put together systems where loved ones can check on each other. They can set up command centers where the victims and family can be reunited. They can also work with emergency personnel to list the various medical facilities used for treating sick or injured people (Winship, 2009).

Unfortunately, there are always those who will take advantage of a chaotic situation. When people are evacuated from their homes or neighborhoods, houses are left unsupervised and opportunities to commit crime can be rampant. Police presence can
help to ensure that looting doesn’t happen. When looting does occur, the police will be ready to apprehend and arrest the suspects (Winship, 2009).

Most police officers are also trained to help people who are in psychiatric distress. Crisis Intervention Teams (CIT) were developed to enable law enforcement officers to effectively and compassionately respond to calls involving people experiencing psychiatric distress. Mental health professionals responsible for training CIT officers are in a unique position to promote the compassionate treatment of those experiencing psychiatric distress as well as the well-being of the police officers themselves. Fostering spiritual connections and a compassionate-warrior mindset may enhance the training of CIT officers (Chopko, 2011).

**Fire Fighters**

Firefighters protect the public by responding to fires and other emergencies. They are frequently the first emergency personnel on the scene of an accident. When not on the scene of an emergency, firefighters work at fire stations, where they sleep, eat, and remain on call during shifts that often last 24 hours. Firefighters typically enter the occupation with a postsecondary non-degree award in fire science or a related discipline. In many jurisdictions, however, the entry-level education needed to become a firefighter is a high school diploma or equivalent. Most firefighters also must pass written and physical tests, complete a series of interviews, and hold an emergency medical technician (EMT) certification. All firefighters receive extensive training after being hired. The median annual wage of firefighters was $45,250 in May 2010 (U.S. Bureau of Labor Statistics, 2012).
**Emergency Medical Specialist**

Emergency medical technicians (EMTs) and paramedics care for the sick or injured in emergency medical settings. People's lives often depend on their quick reaction and competent care. EMTs and paramedics respond to emergency calls, performing medical services and transporting patients to medical facilities. Emergency medical technicians (EMTs) and paramedics work both indoors and outdoors, in all types of weather. Their work is physically strenuous and can be stressful, sometimes involving life-or-death situations and patients who are suffering. All EMTs and paramedics must complete a formal training program. All states require EMTs and paramedics to be licensed; requirements vary by state. The median annual wage of EMTs and paramedics was $30,360 in May 2010 (U.S. Bureau of Labor Statistics, 2012).

**Crisis Line Workers**

According to the World Health Organization (WHO), a very effective way to assess suicidal thoughts is to talk with a person directly, to ask about depression, and assess suicide plans as to how and when it might be attempted. Contrary to popular misconceptions, talking with people about suicide does not plant the idea in their heads. However, such discussions and questions should be asked with care, concern and compassion. The tactic is to reduce sadness and provide assurance that other people care. The WHO advises to not say everything will be all right nor make the problem seem trivial, nor give false assurances about serious issues. However, some people who have talked about suicide have later attempted it, so the discussions should be gradual and specifically when the person is comfortable about discussing his or her feelings. A crisis
hotline is a phone number people can call to get immediate emergency telephone
counseling, usually licensed clinicians or trained volunteers (World Health Organization, 2012).

Burnout

Herbert J. Freudenberger (1974), a New York psychologist, coined the term
"burnout syndrome" in the early 1970s. The term burnout was first used in his 1974
book, Burnout: The High Cost of High Achievement, and is defined as "the extinction of
motivation or incentive, especially where one’s devotion to a cause or relationship fails to
produce the desired results."

Freudenberger had noticed that his own job, which was once so rewarding, had
come to leave him feeling only fatigued and frustrated. Then he noticed that many of the
physicians around him had, over time, turned into depressive cynics. As a result, those
doctors increasingly treated their patients coldly and dismissively (Urich, 2006).

Freudenberger soon began looking at examples outside of health care and found
similar cases in many professions. Afflicted people suffered from mood fluctuations,
disturbed sleep and difficulty concentrating. Accompanying the mental distress were
physical ailments such as backaches or digestive disorders. Freudenberger defined
burnout syndrome as a state of mental and physical exhaustion caused by one’s
professional life (Urich, 2006).

According to Freudenberger, burnout does not happen overnight it develops over
time. Psychologist Herbert Freudenberger and his colleague Gail North have divided the
process into 12 phases. The steps do not necessarily follow one another in order. Many
victims skip certain stages; others find themselves in several at the same time. The length of each phase varies from person to person (Freudenberger, 1974; Urich, 2006).

One of the components of stage one is a compulsion to prove oneself, which can lead to burnout. The beginning is often excessive ambition: their desire to prove themselves at work turns into grim determination and compulsion. They must show their colleagues and above all themselves that they are doing an excellent job in every way. This is an exhausting feet (Freudenberger, 1974; Urich, 2006).

Phase two entails the individual working harder to meet their high personal expectations; they take on more work and buckle down. They become obsessed with handling everything themselves, which in turn demonstrates their notions of “irreplaceability.” In the aforementioned example, the individual takes on more than they can handle (Freudenberger, 1974; Urich, 2006).

Phase three involves individuals neglecting their personal needs, all work and no play. Their schedules leave no time except for work, and they dismiss as unimportant other necessities such as sleeping, eating, and seeing friends and family. They tell themselves that these sacrifices are proof of heroic performance (Freudenberger, 1974; Urich, 2006).

Phase four involves displacement of conflicts. They are aware that something is not right but cannot see the sources of their problems. To deal with the root causes of their distress might set off a crisis and is thus seen as threatening. Often the first physical symptoms emerge at this stage (Freudenberger, 1974; Urich, 2006).

Phase five involves revision of values. Isolation, conflict avoidance and denial of basic physical needs change their perceptions. They revise their value systems, and once
dead time (Freudenberger, 1974; Urich, 2006).

Phase eleven involves the physiological response of depression. In this phase, burnout syndrome corresponds to depression. The overwhelmed people become indifferent, hopeless, exhausted and believe the future holds nothing for them. Any of the symptoms of depression may be manifest, from agitation to apathy. Life loses meaning (Freudenberger, 1974; Urich, 2006).

The last phase, phase twelve is burnout syndrome. Almost all burnout victims now have suicidal thoughts to escape their situation. A few actually carry them out. Ultimately, they suffer total mental and physical collapse. Patients in this phase need immediate medical attention. Many victims skip certain stages; others find themselves in several at the same time. And the length of each phase varies from patient to patient (Freudenberger, 1974; Urich, 2006).

Since Freudenberger there have been different definitions of the phenomenon burnout. Not having a universally agreed upon definition has hindered the growth of the area of study. Edelwich and Brodsky (1980) characterize burnout as a progressive loss of idealism, energy, and purpose. Pines and Aronson (1988) define burnout as a state of physical, emotional, and mental exhaustion. Sarros and Densten (1989) define burnout as a maladaptive coping mechanism to working conditions that are stressful, demanding, or lacking sufficient challenge and recognition.

Of all the definitions, the most widely accepted definition comes from Maslach (1982) who defines burnout as “emotional exhaustion, depersonalization and reduced personal accomplishment that can occur among individuals who do “people work’ of some kind.
During 1976, Maslach a social psychologist interviewed a wide range of human services workers about the emotional stress of their jobs and discovered that the coping strategies had important implications for people’s professional identity and job behavior. Thus, burnout research had its roots in care-giving and service occupations, in which the core of the job was the relationship between provider and recipient. This interpersonal context of the job meant that, from the beginning, burnout was studied not so much as an individual stress response, but in terms of an individual’s relational transactions in the workplace. Moreover, this interpersonal context focused attention on the individual’s emotions, and on the motives and values underlying his or her work with recipients (Maslach & Schaufeli, 2001).

According to Maslach, Schaufeli, and Leiter (2002), there are three types of burnout that one can experience; emotional exhaustion, depersonalization, and personal accomplishment. Exhaustion is the central quality of burnout and the most obvious manifestation of this complex syndrome. When people describe themselves or others as experiencing burnout, they are most often referring to the experience of exhaustion.

Emotional exhaustion is how draining your job is. It pertains to how used up you feel after work. This can feel like apathy, lethargy, low energy, depression, and more. It is a lessening of your motivation and a lack of desire to do things. There is a nagging sense of working too hard. It may feel like you can never get ahead or catch up. This strain results from supporting too many projects, tasks or people. Emotional exhaustion may fluctuate up and down, but once you are there, it is difficult to just let it go. The strong identification of exhaustion with burnout has led some to argue that the other two aspects of the syndrome are incidental or unnecessary. However, the fact that exhaustion...
is a necessary criterion for burnout does not mean it is sufficient (Maslach, Schaufeli, & Leiter, 2002).

The second type of burnout impacts how you deal with people. This is about how you get distance from those around you. Depersonalization is turning people into objects, because it's easier to think of them as a number or faceless being. This is a method of getting space from others. A mild version of this is like getting crowded in an elevator, and instead of realizing how packed you are next to, you avoid having an interaction with them. You just keep them as a nameless, faceless being. Depersonalization is how you are withdrawing from people. It is about how you pull yourself back from caring about others because it's too intense. This is a withdrawal as a result of pressure from bosses, peers, employees or customers that you feel very intensely (Maslach, Schaufeli, & Leiter, 2001).

Depersonalization is an attempt to put distance between oneself and service recipients by actively ignoring the qualities that make them unique and engaging people. Their demands are more manageable when they are considered impersonal objects of one's work. Outside of the human services, people use cognitive distancing by developing an indifference or cynical attitude when they are exhausted and discouraged. Distancing is such an immediate reaction to exhaustion that a strong relationship from exhaustion to cynicism (depersonalization) is found consistently in burnout research, across a wide range of organizational and occupational settings (Maslach, Schaufeli, & Leiter, 2002).

The third type of burnout is impacts your sense of achievement, the feeling that you are accomplishing things that are worthwhile. This often results from how good you
feel about what you do. When your values and the organization's values and goals are aligned, there is a sense of success about what you are doing. When burning out in this area, one feels like they are not doing something that makes a difference. It feels like you aren't contributing. You don't feel like a problem solver, and motivation diminishes (Maslach, Schaufeli, and Leiter, 2002).

A work situation with chronic, overwhelming demands that contribute to exhaustion or cynicism is likely to erode one's sense of effectiveness. Further, exhaustion or depersonalization interferes with effectiveness: It is difficult to gain a sense of accomplishment when feeling exhausted or when helping people toward whom one is indifferent. However, in other job contexts, inefficacy appears to develop in parallel with the other two burnout aspects, rather than sequentially (Leiter, 1998; Maslach, Schaufeli, & Leiter, 2002).

Burnout according to Maslach, Schaufeli, and Leiter (2001) is a prolonged response to chronic emotional and interpersonal stressors on the job, and is defined by the three dimensions of exhaustion, cynicism, and inefficacy. The author of this dissertation uses the aforementioned dimensions to measure the impact of burnout. The past 25 years of research has established the complexity of the construct, and places the individual stress experience within a larger organizational context of people's relation to their work.

Signs of Burnout

In order to measure or prevent the phenomenon of burnout it is important to recognize its signs or symptoms. There are three main areas of symptoms that are considered to be signs of burnout syndrome. The first is emotional exhaustion; people
affected feel drained and exhausted, overloaded, tired and low, and do not have enough energy. Physical symptoms include pain or problems with the stomach or bowel. Burnout is more than psychological it manifest through physiological symptoms (PubMed Health, 2013).

Some people postulate that I am just coming to work “to work,” totally separating themselves from their coworkers. The aforementioned type of alienation is also a sign of burnout. Alienation from (job-related) activities; people affected find their jobs increasingly negative and frustrating. They may develop a cynical attitude towards their work environment and their colleagues. They may, at the same time, increasingly distance themselves emotionally, and disengage themselves from their work (PubMed Health, 2013).

Burnout negatively impacts performance. Burnout mainly affects everyday tasks at work, at home or when caring for family members. People with burnout regard their activities very negatively, find it hard to concentrate, are listless and experience a lack of creativity. Burnout impacts creativity, productivity, and reliability of the employee (PubMed Health, 2013).

The complicated issue is there is no set standard for measuring burnout that is universally agreed upon. Various questionnaires can be used for self-assessment, in which you can find inside self-help magazine at your local grocers. The problem with these questionnaires is that there is no common definition of what burnout is. So it is unclear whether they are really able to measure burnout, or to distinguish it from other disorders. The most common questionnaire is the “Maslach Burnout Inventory” (MBI), which is available for different professional groups. This questionnaire was not
developed for clinical practice, however, but for scientific research on burnout (PubMed Health, 2013).

Online questionnaires on the risk of burnout are not suitable to find out whether someone has burnout or whether the symptoms are caused by something else. Generally, symptoms ascribed to burnout can have other causes too, for example mental or psychosomatic disorders like depression, anxiety disorders or chronic fatigue syndrome. But physical illnesses or certain medications can also cause symptoms like exhaustion and tiredness. So it is important to look for possible causes together with a doctor, and not to think of “burnout” straight away. Because then you might risk using wrong and useless treatments (PubMed Health, 2013).

In his book, Theory and Practice of Counseling and Psychotherapy, Gerald Corey (1996) lists the following as the causes of burnout: Rather than having a single cause, burnout results from a combination of factors. It is best understood by considering the individual, interpersonal, and organizational factors that contribute to the condition. Recognizing the causes of burnout can itself be a step in dealing with it.

A few of them are: doing the same type of work with little variation, especially if this work seems meaningless; giving a great deal personally and not getting back much in the way of appreciation or other positive responses; lacking a sense of accomplishment and meaning in work; being under constant and strong pressure to produce, perform, and meet deadlines, many of which may be unrealistic; working with a difficult population, such as those who are highly resistant, who are involuntary clients, or who show very little progress; conflict and tension among staff; absence of support from colleagues and an abundance of criticism; lack of trust between supervisor and mental-health workers,
leading to conditions in which they are working against each other instead of toward commonly valued goals; not having opportunities for personal expression or for taking initiative in trying new approaches, a situation in which experimentation, change, and innovation are not only unrewarded but also actively discouraged; facing unrealistic demands on your time and energy; having a job that is both personally and professionally taxing without much opportunity for supervision, continuing education, or other forms of in-service training; unresolved personal conflicts beyond the job situation, such as marital tensions, chronic health problems, financial problems, and so on (Cory, 1996).

**Burnout Measurement Instruments**

In the following section the author will review the instruments that were used to measure burnout. It is of great importance that the instrument used to measure the phenomenon of burnout be reliable and valid for research purposes and for accurate individual assessments of burnout. The following is a description of the burnout inventories: Copenhagen Burnout Inventory, Oldenburg Burnout Inventory, and the Maslach Burnout Inventory.

**Copenhagen Burnout Inventory**

The Copenhagen Burnout Inventory measures Burnout in three sub-dimensions namely personal burnout, work-related burnout, and client-related burnout. The core of burnout measured by the Copenhagen Burnout Inventory is fatigue and exhaustion. The Copenhagen Burnout Inventory ask respondent to what degree they agree (very high degree, to a high degree, somewhat, to a low degree, to a very low degree) and the
frequency (always, often, sometimes, seldom, never/almost never) to 18 questions to measure personal, work, and client burnout (Kristensen, Borritz, Villadsen, & Kristensen, 2005).

The following questions are asked to measure personal burnout: How often do you feel tired; How often are you physically exhausted; How often are you emotionally exhausted; How often do you think: “I can’t take it anymore”; How often do you feel worn out; How often do you feel weak and susceptible to illness? The follow sections are used to assess for work burnout; Is your work emotionally exhausting; Do you feel burnt out because of your work; Does your work frustrate you; Do you feel worn out at the end of the working day; Are you exhausted in the morning at the thought of another day at work; Do you feel that every working hour is tiring for you; Do you have enough energy for family and friends during leisure time. The following questions are asked to measure client burnout; Do you find it hard to work with clients; Do you find it frustrating to work with clients; Does it drain your energy to work with clients; Do you feel that you give more than you get back when you work with clients; Are you tired of working with clients; Do you sometimes wonder how long you will be able to continue working with clients (Kristensen, Borritz, Villadsen, & Kristensen, 2005).

The Oldenburg Burnout Inventory

The OLBI has two distinguished scales that measure exhaustion and disengagement dimension. However, both subscales include four items that are positively worded and four items that are negatively worded. This means that both ends of the energy and identification dimensions are included in the OLBI. The answering categories
are (1) “strongly agree” to (4) “strongly disagree.” The OLBI ask the surveyor to use the Likert scale to rate their level of agreement to following 16 questions; I always find new and interesting aspects in my work; there are days when I feel tired before I arrive at work; it happens more and more often that I talk about my work in a negative way; after work, I tend to need more time than in the past in order to relax and feel better; I can tolerate the pressure of my work very well; lately, I tend to think less at work and do my job almost mechanically; I find my work to be a positive challenge; during my work, I often feel emotionally drained; over time, one can become disconnected from this type of work; after working, I have enough energy for my leisure activities; sometimes I feel sickened by my work tasks; after my work, I usually feel worn out and weary; this is the only type of work that I can imagine myself doing; usually, I can manage the amount of my work well; I feel more and more engaged in my work; when I work, I usually feel energized (Demerouti & Bakker, 2008).

**Maslach Burnout Inventory**

The Maslach Burnout Inventory is a tool used to measure the three theoretical components of burnout syndrome: emotional exhaustion, depersonalization and personal accomplishment. It is the most used assessment tool to measure the phenomenon of burnout. The inventory is presented as a list of 22 statements about personal feelings or attitudes. Maslach Burnout Inventory measures the three dimensions of burnout. The basic premise of the Maslach Burnout Inventory is that burnout is triggered by three main factors: exhaustion, depersonalization and personal accomplishment (Maslach, Jackson, & Leiter, 1996).
The Maslach Burnout Inventory ask the surveyor to use the Likert scale to rate their level of agreement to following 22 questions; I feel I treat some recipients as if they were impersonal objects; working with people all day is really a strain for me; I deal very effectively with the problems of my recipients; I feel burned out from my work; I feel I’m positively influencing other people’s lives through my work; I’ve become more callous toward people since I took this job; I worry that this job is hardening me emotionally; I feel very energetic; I feel frustrated by my job; I feel I’m working too hard on my job; I don’t really worry what happens to some recipients; working with people directly puts too much stress on me; I can easily create a relax astrosphere with my recipients; I feel exhilarated after working closely with my recipients; I have accomplished many worthwhile things in this job; I feel like I’m at the end of my rope; in my work, I deal with emotional problems very calmly; I feel recipients blame me some of their problems (Maslach, Jackson, & Leiter, 1996).

Job Burnout

Job burnout is “a consequence of the perceived disparity between the demands of the job and the resources (both material and emotional) that an employee has available to him or her. When demands in the workplace are unusually high, it becomes increasingly impossible to cope with the stress associated with these working conditions.” Its roots are found in the daily transactions stemming from the debilitating physical and emotional overload that arises from stress on the job (Demerouti et al., 2001).

Job burnout is both an occupational hazard and a phenomenon induced by distress. It is generally characterized by: (1) some degree of physical and emotional
exhaustion; (2) socially dysfunctional behavior, particularly a distancing and insulation from individuals with whom one is working; (3) psychological impairment – especially strong, negative feelings toward the self; and (4) organizational inefficiency through decreased output and poor morale (Demerouti et al., 2001).

The phenomenon of burnout can be transferred from one person or group to another. It is infectious, it is important to contain burnout. Perceived collective burnout is a type of social climate that refers to the shared perceptions of the work environment in terms of how burned out the people we work with are: employees in the same organization tend to develop similar perceptions of how stressed out and/or burned out are their colleagues. Thus, perceived collective burnout would represent the shared perception of the employees in the same organization about their colleagues’ burnout symptoms (Gonzales-Morales et al., 2012).

According to Diestal, Cosmar, and Schmidt (2013), a “burnt-out” worker does not work at his or her best. The researchers conducted a study that focused on emotional exhaustion as the core symptom of burnout. The sample comprised 81 employees recruited from nursing homes for elderly care, who participated in a laboratory study involving cognitive tasks. Based on a median split, participants were divided into two groups: those with high burnout and those with low burnout. The high exhaustion participants performed less well than those with low exhaustion only when tasks put high demands on their executive control. The high levels of emotional exhaustion were associated with more errors and longer reaction times when demands on executive control were high, whereas no performance differences were found when both tasks put low demands on executive control.
A study conducted by Moya-Alboil, Serrano, and Salvador (2010) revealed that job burnout can lead to psychophysiological responses. The researchers found that high burnout was related to worse mood, and higher perceived stress throughout the work day. Moreover, burnout is positively related to systolic blood pressure and negatively related to salivary cortisol levels at the beginning of the workday.

The authors found that the psychophysiological responses to a workday are specifically associated with the different burnout subscales (emotional exhaustion, depersonalization and personal accomplishment). Men presented higher diastolic blood pressure than women at the beginning and the middle of the workday. Burnout could induce an alteration in mood together with a dysregulation of the cardiovascular activity and the hypothalamo-hippocampal adrenocortical axis functioning in response to a. Moreover, our results offer different burnout-dependent patterns of relationships between psychological, cardiovascular and cortisol responses and they suggest that gender plays a moderator role in the cardiovascular response to a workday (Moya-Alboil, Serrano, and Salvador, 2010).

A study by Gonzalez-Morales et al. (2012) examined how burnout can transfer without direct contagion or close contact among employees. Based on the social information processing approach and the conservation of resources theory, they propose that perceived collective burnout emerges as an organizational-level construct (employees' shared perceptions about how burned out are their colleagues) and that it predicts individual burnout over and above indicators of demands and resources.

The researchers collected data from 555 teachers dispersed among 100 schools during the first term and again during the last term of the academic year. The core
dimensions of burnout, exhaustion, and cynicism were measured at the individual and collective level. Random coefficient models were computed in a lagged effects design. Six hundred and seventy-five questionnaires were delivered and 659 questionnaires from 111 schools were returned in the first wave (97.63% response rate); experimental mortality at Time 2 (15.78%) left the final sample composed by 555 teachers from 100 Spanish primary (63%) and secondary (37%) schools. The mean number of teachers who participated in each school was 5.92 (SD 1.35). Three hundred and thirty-six teachers (60%) were women and 219 (40%) were men. Seventy-five percent of the teachers were middle aged (37–55 years old), 77% were married or were living in common law, and 20% had managerial responsibilities in addition to their daily teaching tasks (Gonzales-Morales et al., 2012).

Results of the study showed that perceived collective burnout at Time 1 was a significant predictor of burnout at Time 2 after considering previous levels of burnout, demands (workload, teacher student ratio, and absenteeism rates), and resources (quality of school facilities). These findings suggest that perceived collective burnout is an important characteristic of the work environment that can be a significant factor in the development of burnout (Gonzales-Morales et al., 2012).

A study conducted by Adzic et al (2013) examined the impact of physician burnout on the quality of patient care is unclear. This cross-sectional study aimed to investigate the prevalence of burnout in family physicians and its association with physician and practice characteristics, and patient enablement as a consultation outcome measure. Hundred and twenty-five out of 350 family physicians responded to the researchers’ invitation to participate in the study.
The physicians in the study collected data from 50 consecutive consultations with their adult patients who had to provide information on patient enablement (Patient Enablement Instrument). Physicians themselves provided their demographic and professional data, including workload, job satisfaction, consultation length, and burnout Maslach Burnout Inventory – Human Services Survey (MBI-HSS). MBI-HSS scores were analyzed in three dimensions: emotional exhaustion (EE), depersonalization (DP), and personal accomplishment (PA). Of the responding physicians, 42.4 % scored high for EE burnout, 16.0 % for DP, and 15.2 % for PA (Adzic et al., 2013).

A multiple regression analysis showed that low job satisfaction and more patients per day predicted high EE scores. Low job satisfaction, working more years at a current workplace, and younger age predicted high DP scores. Lack of engagement in education and academic work, shorter consultations, and working more years at current workplace predicted low PA scores, respectively (P<0.05 for each). Burnout is common among family physicians yet burnout in physicians was not associated with patient enablement, suggesting that it did not affect the quality of interpersonal care. Job satisfaction, participation in educational or academic activities and sufficient consultation time seem to reduce the likelihood of burnout (Adzic et al, 2013).

**Demographics Factors**

According to Walsh (2013), long and unsociable hours and intensive work pressure have been dominant features of the medical profession, especially in hospital work. The increased presence of women in medical occupations, however, has stimulated debate about the nature and consequences of such work practices on doctors’ wellbeing.
The researcher explored how factors relating to the work-life interface affect the wellbeing of a sample of hospital doctors. They accessed whether gender differences are discernible in the pattern of factors associated with perceptions of job burnout and intentions to quit. The findings suggest that female doctors were more likely to experience job burnout than male doctors. It also shows that aspects of the work-life interface affect the wellbeing of all doctors but women tend to rely on different forms of social support from men to alleviate burnout and reduce the likelihood of leaving their job (Walsh, 2013).

Guthrie and Jones (2012) postulated that research has not sufficiently explored how burnout may affect the genders distinctly and whether these differences may lend insight as to women’s choices to exit. The researchers utilized a large participant group with a similar proportion of women (n=836) and men (n=845) allowed examination of the burnout construct on a more profound level than extant studies. The three dimensions of job burnout in women and men public accountants were analyzed, not only in total, but also by functional area and position level. Overall findings are that women report higher levels of reduced personal accomplishment and men report higher levels of depersonalization.

Norlund, Reuterwall, Hoog, Lindahl, Janlert, and Birgander, (2010) examined the level of burnout in the general working population in northern Sweden and analyzed it’s relation to working conditions and gender. The researchers used a cross-sectional study, the survey from the MONICA-study (Monitoring of Trends and Determinants in Cardiovascular Disease) in northern Sweden 2004 was used. A burnout instrument, the Shirom Melamed Burnout Questionnaire (SMBQ), was incorporated in the original...
survey, which was sent to a random sample of 2500 individuals with a response rate of 76%.

After including only actively working people, aged 25-64 years, the study population consisted of 1000 participants (497 women and 503 men). ANOVA and multiple linear regression models were used. The researchers found that the prevalence of a high level of burnout (SMBQ >4.0) was 13%. Women had a higher level of burnout than men with the most pronounced difference in the age group 35-44 years. In both sexes the level of burnout decreased with age. Demand and control at work, and job insecurity were related to burnout (Norlund et al., 2010).

Among women the level of education, socioeconomic position, work object, and working varying hours were of importance. Interaction effects were found between sex and work object, and sex and working hours. In a multiple regression analysis almost half of the gender difference could be explained by work related and life situational factors (Norlund et al., 2010).

The researchers found that working life conditions contributed to the level of burnout in this actively working sample from the general population in northern Sweden. Especially in women, socioeconomic position was associated with burnout. The high level of burnout in women compared to men was partly explained by more unfavorable working conditions and life situational factors. Efforts to level out gender differences in burnout should probably focus on improving both working and socioeconomic conditions for women (Norlund et al., 2010).

Emmerik (2002) examined gender differences in the effectiveness of five sources of coping assistance to reduce dissatisfaction and emotional exhaustion among 403
female and 664 male academic staff of a Dutch university. It was hypothesized that support at work ((1) socio-emotional aid from the supervisor and colleagues, (2) a supportive climate in the department, and (3) practical assistance in the department) and support at home ((4) socio-emotional aid from the spouse, and (5) practical assistance from the spouse) would reduce dissatisfaction and burnout, and that women especially would benefit from these coping assistance measures. Using moderated regression analyses, the researcher found that coping assistance from a supervisor and colleagues is an important measure to reduce both dissatisfaction and emotional exhaustion.

The researcher postulated that a supportive departmental climate and practical assistance in the department reduced emotional exhaustion and especially female academic staff benefited from these types of coping assistance at the aggregate level. However, contrary to expectations, such beneficial effects were not found for both socio-emotional aid and practical assistance from the spouse (Emmerick, 2012).

Stanetic and Tesanovic (2013) believe that the burnout syndrome is a response to chronic emotional and interpersonal stressors which are related to workplace. Medicine is one of the professions at the greatest risk of suffering from burnout syndrome. The aim of their study was to assess the presence of stress and burnout syndrome in relation with age and length of service in the family medicine physicians.

The researchers utilized the Maslach Burnout Inventory, which were amended with data regarding age, sex, length of service and educational and vocational level. The study included 199 (83.3%) female and 40 (16.7%) male participants. The physicians aged over 46 years and with the length of service over 21 years had statistically significant higher level of stress and emotional exhaustion than younger participants and
participants with shorter length of service. The researchers found that age and length of service have important influence on the level of stress and burnout syndrome: the older the physicians and the higher the length of service the higher the level of stress and the higher the risk of burnout syndrome (Stanetic & Tesanovic, 2013).

Lourel, Abdellaoui, Chevaleyre, Paltrier, and Gana (2008) explored the impact of burnout among firefighters. Data were obtained from 101 volunteer Firefighters. The dependent variables were emotional exhaustion, depersonalization, and personal accomplishment, as measured by Maslach’s Burnout Inventory (MBI). The predictor variables were job. A path model showed that emotional exhaustion was predicted by job control. The paths from job demands to emotional exhaustion and to depersonalization were positive and significant.

There was a positive correlation between respondent age and emotional exhaustion and negatively related to depersonalization. Job demands predicted depersonalization and emotional exhaustion. The researchers showed the importance of the mechanisms relevant to psychological burnout among firefighters. The researchers believe that more attention must be paid to counseling and psychological support for individuals in this population (Lourel et al., 2008).

Leary, Green, Denson, Schoenfeld, Henley, and Langford (2013) examined, from the subordinate’s perspective, the relationship of dysfunctional leadership dispositions to employee engagement, job satisfaction and burnout. The researchers conducted a field study survey to capture three categories of dysfunctional dispositions and three employee variables from employees engaged in dyadic relationships with leaders. Multiple
regression analysis was used to test relationships hypothesized to exist between dysfunctional behaviors and employee engagement, job satisfaction, and burnout.

The researchers found that leadership factors associated with intimidation and avoiding others have a significant relationship with employee engagement, job satisfaction, and burnout. More specifically, factors associated with charm, manipulation, ingratiolation, and building alliances appear unrelated to employee engagement, job satisfaction, and burnout (Leary, 2013).

Yawen, I-Shin, Chiou-Jong, Hermann, and Martin (2013) study was designed to examine the age-specific patterns of Self Rated Health (SRH) and burnout and their correlations with self-reported disease symptoms, and to investigate the moderating effects of age on the associations of psychosocial work conditions with these two health measures. The study subjects consisted of 20,454 male and 16,875 female employees from 2 representative surveys conducted in 2007 and 2010. SRH was assessed by a single item and burnout was assessed by the general burnout subscale of the Copenhagen Burnout Inventory (CBI). Psychosocial work conditions including working hours, psychological and physical job demands, job control, job insecurity and workplace justice were assessed by a validated questionnaire.

The researchers found that older workers were at higher risk for poor SRH, which was correlated with the presence of multiple disease symptoms. In contrast, employees aged 30–40 years had higher burnout, which was strongly correlated with emotional disturbance. Among all the examined work factors, low workplace justice was found to be the most predominant predictor for poor SRH and high burnout, and the associations were more profound in younger workers than in older workers (Yawen et al., 2013).
There finding also showed that SRH and burnout were differentially related to age, and there were evidences of moderating effects of age on the associations between psychosocial work conditions and health. The researchers suggested that researchers and health practitioners pay attention to the influence of age when using the measures of SRH and burnout as indicators to detect health risk in association with adverse psychosocial work conditions (Yawen et al., 2013).

Swider and Zimmerman (2010) quantitatively summarized the relationship between Five-Factor Model personality traits, job burnout dimensions (emotional exhaustion, depersonalization, and personal accomplishment), and absenteeism, turnover, and job performance. All five of the Five-Factor Model personality traits had multiple true score correlations of .57 with emotional exhaustion, .46 with depersonalization, and .52 with personal accomplishment. There is a relationship between personality and likelihood for job burnout.

Also, all three dimensions of job burnout had multiple correlations of .23 with absenteeism, .33 with turnover, and .36 with job performance. Meta-analytic path modeling indicated that the sequential ordering of job burnout dimensions was contingent on the focal outcome, supporting three different models of the burnout process. Finally, job burnout partially mediated the relationships between Five-Factor Model personality traits and turnover and job performance while fully mediating the relationships with absenteeism (Swider & Zimmerman, 2010).

Matin, Kalali, and Anvari (2012) investigated the moderating effect of demographic variables on the relationship between job burnout and its consequences among the staff of an Iranian public sector company. In the research, job burnout is
considered as independent variable; organizational commitment, intention to leave and the employees' job satisfaction are dependent variables; and the age, gender, marital status and educational level are moderating variables. The results indicated that firstly, the job burnout of employees in organizations leads to the decrease of organizational commitment and job satisfaction, and the increase of intention to leave; secondly, the demographic variables in this research don't effect on the relationship of job burnout with its consequences.

Haque and Aslam (2011) examined the relationship of demographics and job burnout. Association of emotional exhaustion, depersonalization, lack of accomplishment and overall job burnout with different demographics such as gender, age, marital status, qualification, work experience, salary structure and working hours was investigated in this study. A well-structured questionnaire was administered and data was collected from 406 bankers working in local private, local nationalized and foreign banks located in Lahore city.

The study found that employees belonging to different demographical groups exhibit same level of burnout in most of the cases. It is found that both gender exhibit the same level of emotional exhaustion, but male employees are found to have higher level of depersonalization, lack of accomplishment and overall job burnout than female employees. However, no significant difference was found in the level of burnout between single and married employees. Married employees suffer from burnout due to non-provision of sufficient rewards to meet their married life reasonably while single employees suffer from it due not non-availability of life partner with whom he/she can easily share their problems and release their depression. No significant found between the
level of burnout and its dimensions among employees' with different age group and work experience. Employees with 14 years of education found to have higher level of depersonalization than others while lack of accomplishment found to be higher in employees with more than 16 years of education (Haque & Aslam, 2011).

Warren, Schafer, Crowley, and Olivardia (2013) examined demographic and work related correlates of three primary components of burnout (i.e., emotional exhaustion, cynicism or depersonalization, and lack of personal accomplishment) in a sample of 296 professional eating disorder treatment providers. Participants completed the Maslach Burnout Inventory-Human Services Survey (MBI-HSS; Maslach, Jackson, & Leiter, 1996), demographics, and a questionnaire developed by the authors measuring eating disorder-specific factors theorized to be relevant to burnout.

Overall, participants reported comparable levels of emotional exhaustion but significantly less cynicism and lack of personal accomplishment relative to established norms for mental health care providers on the MBI-HSS. Analyses of variance and backward regression analyses suggested that higher levels of burnout were associated with being younger, female, and overweight; working longer hours; having less experience; and experiencing a patient’s death (Warren, Schafer, Crowley, & Olivardia, 2013).

Conversely, working in a private practice setting, having children, and having a personal history of an eating disorder were associated with lower burnout levels. Furthermore, over 45% of participants reported that treatment resistance, ego-synchronicity, high relapse rates, worry about patient survival, emotional drain, lack of appropriate financial reimbursement, and extra hours spent working contributed to
feelings burned out somewhat to very much. Overall, these data suggest that emotional exhaustion is the most common aspect of burnout experienced by eating disorder treatment providers and highlight some of the key correlates of burnout for this population, which can be used to inform prevention and intervention efforts (Warren, Schafer, Crowley, & Olivardia, 2013).

Police

Euwema, Kopt, and Bakker (2004) found that dominance plays an important part in police-civilian interactions. However, burnout is associated with a reduction in dominance, and this might, paradoxically, lead to more effective outcomes in conflict situations. The quality of an officer’s job performance is seriously threatened when professionals become burned out. There is a lack of knowledge about the effects of burnout in professional practice, and their multi-method study was conducted to better understand these dynamics. The researchers combined self-reported burnout with observed behavior in interactions with civilians.

In the study, the relationships between the imbalance between demands and rewards, occupational burnout and police officers’ behavior in conflict situations (in terms of dominance and effectiveness) were examined. A questionnaire was used to assess job demands, rewards and burnout among 358 Dutch police officers. In addition, police officers’ interactions with civilians were observed over 122 days (Euwema, Kopt, & Bakker, 2004).

The results of structural equation modeling analyses showed that the imbalance between job demands and rewards was predictive of burnout (emotional exhaustion and
depersonalization). Burnout, in its turn, predicted a decrease in dominant behavior in conflict situations and, consequently, more effective conflict outcomes. These findings show that reduced dominance associated with burnout could in fact have positive consequences for professional behavior in conflict situations (Euwema, Kopt, & Bakker, 2004).

Vuorensyrjä and Mälkiä (2011) examined police-specific factors of stress, police stressors, and to assess the effects of these factors on police officer burnout. Their study tested the linearity of these effects. The study focused on four stressors: defective leadership, role conflicts, threat of violence, and time pressure. As a measure of burnout, Bergen Burnout Indicator 15 was used.

The data was cross-sectional in nature and came from the Police Personnel Barometer (PPB) conducted in Finland in 2008. The PPB-survey targeted the entire police administration in Finland. The response rate was 67.2 percent (n=6,871). The finding used a sub-sample of police officers (constable rank) from three functional areas of policing (n=2,821) (Vuorensyrjä & Mälkiä, 2011).

The researchers found that when controlled for age, gender, education, shift work, tenure and the function of the police officer, the effects of the different stressors on burnout were all statistically significant. Statistically significant and robust nonlinear effects of the stressors on burnout were also found. The study introduced a new measure of stress to analyze police work. It takes a preliminary look at the reliability and validity of the measure. The study considered linear as well as nonlinear effects of the stressors on burnout and suggested that the effects under scrutiny are essentially nonlinear (Vuorensyrjä & Mälkiä, 2011).
McCarty and Slogan (2013) found that employee burnout can affect workers' health, motivation, and job performance, and speed staff turnover. In law enforcement, burnout has been attributed to a variety of job-related, organizational, and personal factors, ranging from the danger inherent to the job to the liabilities of late shift work, tension with supervisors, and gender relations in the organization. Overlooked in almost all of these studies have been the place that civilians officers hold in police work, and how their burnout experiences differ from or resemble those of their sworn counterparts.

The study was based on surveys of both sworn and civilian employees of 12 police agencies from across the United States. In the survey they described their extent of emotional exhaustion, and reported on features of their lives and work that have been hypothesized to magnify or minimize this stress reaction (McCarty & Slogan, 2013).

The study found that the burnout process is a universal one, driven by virtually the same factors among both civilians and sworn officers. Difficulties balancing work and life responsibilities, the support they receive from coworkers and supervisors, the fairness of personnel policies, and several personal factors contributed to burnout levels. The implications of these findings for both research and practice are also explored (McCarty & Slogan, 2013).

Gachter, Savage, and Torgler (2011) analyzed the gender effect on reported perceived levels of stress through examination of physical and psychological indicators. The study explored both gender differences in (perceived) stress levels as well as the underlying gender-specific sensitivity to environmental factors, such as unit cooperation, trust in the work partner, higher levels of work-life balance and home stability, and interactional fairness.
Using multivariate regression analysis they found that female officers were significantly more likely to report physical strains than males, while no gender differences are observable in regards to psychological strains. Moreover, higher levels of trust and interactional fairness at work are not able to absorb physical strain among females, but have a strong impact on males. Alternatively for both female and male officers, work-life balance and stability at home appear to reduce physical strain (Gachter, Savage, & Torgler, 2011).

Finney et al. (2013) postulated that because correctional officers (Cos) are responsible for the safety and security of the facility in addition to aiding in offender rehabilitation and preventing recidivism. Cos experience higher rates of job stress and burnout that stem from organizational stressors, leading to negative outcomes for not only the CO but the organization as well. The researchers believed that effective interventions could aim at targeting organizational stressors in order to reduce these negative outcomes as well as Cos’ job stress and burnout.

The researcher’s systematic review yielded 8 studies that met all inclusion and quality assessment criteria. The five categories of organizational stressors among correctional officers are: stressors intrinsic to the job, role in the organization, rewards at work, supervisory relationships at work and the organizational structure and climate. The organizational structure and climate was demonstrated to have the most consistent relationship with CO job stress and burnout (Finney, 2013).

The results of this review indicated that the organizational structure and climate of correctional institutions has the most consistent relationship with Cos’ job stress and burnout. Limitations of the studies reviewed include the cross-sectional design and the
use of varying measures for organizational stressors. The results of this review indicate that interventions should aim to improve the organizational structure and climate of the correctional facility by improving communication between management and Cos (Finney, 2013).

Burke (1993) examined a research model developed to understand work satisfactions and emotional and physical well-being among police officers. Data were collected from 828 men and women in police work using questionnaires completed anonymously. Although considerable diversity was present in the sample, a majority were male constables in their early careers. Five groups of predictor variables identified in previous research were considered: individual demographic and situational variables, work stressors, work-family conflict, coping responses, and psychological burnout components.

The study found that work stressors and psychological burnout were fairly consistently and significantly related to levels of self-reported work attitudes and emotional and physical well-being. Somewhat surprisingly, work-family conflict and individual coping responses were generally unrelated to measures of work attitudes and self-reported emotional and physical well-being (Burke, 1993).

Police officers are considered at increased risk for suicide. Violante et al (2009) explored potential influences on suicide ideation among 105 randomly selected men and women urban police officers. Depression, gender, and marital status appeared to be most strongly associated with police suicidal ideation. Depressive symptoms were higher among women than men officers (12.5 percent vs. 6.2 percent). For each standard deviation increase in depressive symptoms, the prevalence ratio (PR) of suicide ideation
increased 73 percent in women (PR = 1.73, 95% CI = 1.32–2.27) and 67 percent in men (PR = 1.67, 95% CI = 1.21–2.30). The association between depression and ideation was stronger among unmarried women officers (PR = 4.43; 95% CI = 2.19 – 8.91) than married women officers (PR = 1.39, 95% CI = 1.09 – 1.79). While depression has previously been associated with suicide, such results are unusual in a healthy working population such as the police.

According to Smith and Charles (2010), operational policing is demanding and threatening. Repeatedly dealing with death, serious injury, horrific crime scenes, the need to be constantly alert whether on or off duty, being ostracized by communities, friends and family, are only some examples of what officers encounter. All take their toll on police officers: on their health, fitness and well-being, and on their view of people and the world. The toll also extends to those who are served by these officers. While this toll is recognized, there are still high levels of sickness absence, ill health, alcohol/drug-related problems as well as suicides. These are clear illustrations of the challenging nature of policing.

The authors believe that we should examine the deeper issues related to the challenging nature of policing and its struggle for good; not being recognized as whole people; not being treated as valuable parts of a community; the reality of facing death and destructiveness on a daily basis we see that, at a fundamental level, these have a spiritual component to them. The aforementioned is important but often unrecognized aspect of policing. Police departments emphasize the physical and mental well-being of officers but neglect their spiritual well-being. There are sound reasons for a greater focus on this area. It is morally appropriate to address this area. The researchers identifies the issues
related to coping strategies and officer fitness, highlights how the spiritual dimension may assist in the development of coping strategies, and identifies how these issues might be taken forward (Smith & Charles, 2010).

Michinov conducted a two cross-sectional studies among 72 customs officers (Study 1) and 100 police officers (Study 2) to examine the relationship between the direction of social comparison and outcomes such as occupational burnout, health complaints, and job satisfaction. Social comparison was measured by the frequency at which participants reported that they compared themselves with better-off and worse-off employees on several work-related dimensions. Correlation and mediation analyses were conducted to test two complementary hypotheses.

The researchers expected the upward comparison to be positively related to perceived control and job satisfaction, and negatively related to health complaints and occupational burnout. Secondly, perceived control was expected to mediate the relationship between comparison direction and psychological outcomes such as burnout, health complaints, and job satisfaction. The results of both studies partially supported these predictions and showed that only the emotional component of burnout, emotional exhaustion was affected by social comparison direction and mediated by perceived control (Michinov, 2005).

LuoRuiz (2012) examined how overextended working hours can impact a police department's officers and personnel as well as affect the physical and psychological health that impairs the safety of police and the public in China and the USA. Given that Karoshi (death from overwork) among a variety of occupational groups is commonly recognized in Japan, China and other countries, the authors contend that the problem also
exists in policing. The researchers reviewed the physiological and psychological impact of policing in China and the USA by highlighting similarities and differences to: (1) ascertain whether police in China and the USA experience the same level of stress due to work demands, (2) compare and contrast the physiological and psychological impact that stressful working conditions have on police officers in both countries, and (3) review how each country attempts to deal with these problems.

The researcher found that long working hours in the policing profession are strongly linked to physical and psychological problems, whether in China or the USA. Police in both countries share the same problems related to shift hours, erratic work hours, calls for service and numerous other similarities. However, they also bear significant differences such as insufficient police manpower and the country’s complicated social environment in China, whereas court appearances and secondary employment are problematic in the USA (LuoRuiz, 2012).

Schaible and Gecas (2010) postulated that police are also subject to a host of institutional and cultural forces that are likely to contribute to burnout. Their study examined the variety of ways self-processes, societal and institutional policing values, and demands for emotional presentation on police officers interact to produce burnout. Using data collected from a survey of police officers in the Pacific Northwest (N = 109), we assess three primary hypotheses: (a) The greater the emotional management required of officers, the greater will be their levels of burnout, (b) The greater the dissonance between officer’s own values and those of various reference groups, the greater will be their levels of burnout, and (c) In combination, value dissonance and emotional labor should produce higher levels of burnout than either would independently produce.
Results provide mixed support for these hypotheses suggesting that value dissonance only exhibits independent effects on burnout rooted in depersonalization, whereas effects of emotional dissonance vary depending on the type of burnout under consideration.

Basinska (2012) stated that because of excessive demands, work overload and the working time arrangements are on important cause of burnout and fatigue in employees. Specific working time arrangements are characteristic of the internal security services, such as police officers and firefighters. This applies to both the ordering of day and night shifts and the length of shifts. Depletion of personal resources is a common component for acute fatigue and burnout. However, fatigue has a short-term effect, whereas burnout has a chronic effect. The aim of the study presented here is to assess the relationship between fatigue and burnout in two professional groups with high psychosocial risks.

The researcher examined consisted of 174 people, 89 police officers (11 women) and 85 firefighters. Correlational design was used. The Fatigue Scale was applied to measure fatigue at work, and The Oldenburg Burnout Inventory was used to measure exhaustion and disengagement. The results showed that in comparison with firefighters, police officers were more fatigued, more exhausted and more disengaged. Fatigue was related to exhaustion and disengagement. The effective size of the relationship between fatigue and exhaustion and between fatigue and disengagement was similar and moderate in both groups (Basinska, 2012).

The researcher found that the differences between police officers and firefighters in fatigue and burnout may be explained by different demands and working time arrangements. Depletion of energy resources is visible in exhaustion and disengagement.
The practices of limiting the negative and direct results of work, such as fatigue, may help to prevent the escalation of chronic conditions such as burnout (Basinska, 2012).

Burke and Deszca (1996) examined the usefulness of a phase model of burnout. Eight hundred and twenty-eight men and women in police work provided data using a questionnaire completed anonymously. Eight progressive phases of burnout were created using high and low divisions on the three subscales of the Maslach Burnout Inventory. Measures of work setting, experienced stress, and emotional and physical well-being were significantly related to progressive phases of burnout. Work and personal experience grew worse as burnout progressed through more advanced phases. Comparisons with other data revealed potential occupational and organizational differences in numbers of respondents in various phases of burnout.

McCarty, Zhao, and Garland (2007) explored whether male and female police officers report different levels of occupational stress and burnout. Also, the researcher examined whether various factors that are purported to influence occupational stress and burnout have differential effects on male and female officers. Using a sample of police officers working in a large metropolitan department in the Northeast, the researchers began by using t-tests to make gender comparisons between the average levels of occupational stress and burnout between male and female officers. Next, separate multivariate analyses were run for male and female officers to determine how a set of independent variables measuring the work-environment, coping mechanisms, and other demographic characteristics affected the measures of occupational stress and burnout.

The findings indicated that male and female officers did not report significantly different levels of occupational stress and burnout. Results of the separate multivariate
analyses reveal that, although there are similar predictors of stress and burnout for male and female officers, differences did exist in the models, lending support to the assertion that the female officers may experience unique stressors in the police organization. The multivariate results also indicated that African-American female officers reported significantly higher levels of burnout than other officers. The findings of the study indicated that a one program-fits-all approach may not be the best way for departments to help officers to deal with stress and burnout, since male and female officers may not experience or deal with these issues in a similar fashion (McCarty, Zhao, & Garland, 2007).

Don and Brett (2011) examined whether influences on stress and burnout vary between officers with military experience and officers without a military background. Data was obtained from earlier research on police staff at a Northeastern metropolitan city. A combination of analytic methods, including t-tests and multivariate regression analysis, were used to explore the effects of variables on stress and burnout among military and non-military officers.

The results indicated that negative exposures to demanding events influenced burnout for all officers. In contrast, negative exposures affected stress levels for those officers with no military experience. Coping techniques were important predictors of stress and burnout for both groups; however, contrary to expectations, police experience in years was not significant in any model. Demographic controls had no influence on stress and burnout for either group, with the exception of gender, which was a significant predictor of stress only for the non-military group. The findings here demonstrated that military experience can have a favorable influence on the work outcomes of police
officers. This study suggested that officers with military backgrounds are less stressed when faced with demanding situations and that military experience provides female officers with an edge in handling work-related stressors (Don & Brett, 2011).

**EMT, EMS, & Firefighters**

According to Collopy, Kivlehan, and Snyder (2012), burnout and PTSD are closely linked and often underreported in Emergency Medical Services (EMS). EMS classrooms do little or nothing to prepare providers for the inherent emotional stresses of emergency response and the “thick skin” culture of EMS may make many providers apprehensive about sharing their true feelings.

Collopy, Kivlehan, and Snyder (2012), burnout is triggered by many of the same stresses that lead to the symptoms of PTSD and providers experiencing burnout that doesn’t resolve within a few weeks may actually be experiencing PTSD. Traumatic responses don’t need to be as dramatic as Sept. 11, New Orleans after Hurricane Katrina or the Aurora, CO shootings to bother an EMS worker. In contrast, these are the calls where providers often receive the most attention. Instead, watch for the new father who just performed CPR on an infant the same age as his own, or the provider who just watched his or her friend die following a motor vehicle collision. The author urged EMS workers to pay attention to themselves and their colleagues, and be responsible and honest with themselves and others about when coping strategies are enough, and when they aren’t.

Blau and Chapman (2011) conducted an exit survey of 127 respondents in fully compensated positions who left the EMS profession, most within 12 months prior to
filling out the exit survey. A very high percentage continued to work after leaving EMS. Respondents were asked to rate the importance of each of 17 items in affecting their decision to leave EMS. A higher than anticipated response to a “not applicable” response choice affected the usability of 8 of these items. Nine of the 17 items had at least 65 useable responses and were used for further analysis. Within these 9, stress/burnout and lack of job challenges had the highest importance in affecting the decision to leave EMS, while desire for better pay and benefits had the lowest importance. Desire for career change was positively related to life satisfaction after leaving EMS and negatively related to likelihood of returning to EMS. Stress/burnout was positively related to life satisfaction after leaving EMS.

Stassen, Nugteren, and Stein (2013) examined the prevalence of burnout among advanced life support (ALS) paramedics in Johannesburg, South Africa and assessed the relationship between burnout and a number of demographic characteristics of the sampled ALS paramedics. The author used an internet-based survey. Survey invitations were sent via email to 98 registered ALS paramedics in the Johannesburg area. The survey questionnaire was created by combining the Copenhagen Burnout Inventory (CBI) with numerous distractor questions. Burnout was defined as a CBI score >50. Descriptive analysis was performed and results subjected to Chi-square testing in order to establish dependencies between burnout scores and demographic factors. Results A 46% (n=45) response rate was obtained.

Forty responses were eligible for analysis. Thirty percent of these respondents had total burnout according to their CBI score, while 63% exhibited some degree of burnout in one of the CBI subcategories. The results of the subcategory analyses showed that 23%
of respondents experienced burnout in the patient care-related category, 38% experienced burnout in the work-related category and 53% experienced burnout in the personal burnout category. There were no statistical differences in the burnout scores according to gender (p=0.292), position held (p=0.193), employment sector (p=0.414), years of experience (p=0.228) or qualification (p=0.846). Distractor questions showed that paramedics feel overworked, undervalued, poorly remunerated and unsupported by their superiors (Stassen, Nugteren, & Stein, 2013).

Porter and Johnson (2008) conducted a pilot study focused on paramedic students in the final year of their college program. Using a randomized controlled pre-test/post-test design, this study sought to determine whether perceived peer support, negative attitude towards emotional expression, and specific coping processes, would be significantly predictive of levels of self-reported psychological distress and burnout symptomology, and whether a group counseling intervention could be utilized to influence change in desired directions. Significant correlates were identified and a number of interesting trends emerged that underscore the need for further research in this area.

Halpern, Maunder, Schwartz, and Gurevich (2012) postulated that emergency medical technicians (EMTs) and paramedics experience critical incidents which evoke distress and impaired functioning but it is unknown which aspects of incidents contribute to their impact. The researchers sought to determine the specific characteristics by developing an inventory of critical incident characteristics and testing their relationship to protracted recovery from acute stress, and subsequent emotional symptoms.
EMTs and paramedics (n = 223) completed a retrospective survey of reactions to
an index critical incident, and current depressive, posttraumatic and burnout symptoms.
Thirty-six potential event characteristics were evaluated; 22 were associated with
peritraumatic distress and were retained. The researcher assigned inventory items to one
of three domains: situational, systemic or personal characteristics. The researchers tested
the relationships between (a) endorsing any domain item and (b) outcomes of the critical
incident (peritraumatic dissociation, recovery from components of the Acute Stress
Reaction and depressive, posttraumatic, and burnout symptoms). Analyses were repeated
for the number of items endorsed (Halpern, Maunder, Schwartz, & Gurevich, 2012).

The researchers found that personal and situational characteristics were most
frequently endorsed. The personal domain had the strongest associations, particularly
with peritraumatic dissociation, prolonged distressing feelings, and current posttraumatic
symptoms. The situational domain was associated with peritraumatic dissociation,
prolonged social withdrawal, and current posttraumatic symptoms. The systemic domain
was associated with peritraumatic dissociation and prolonged irritability. Endorsing
multiple characteristics was related to peritraumatic, acute stress, and current
posttraumatic symptoms. Relationships with outcome variables were as strong for a 14-
item inventory (situational and personal characteristics only) as the 22-item inventory
(Halpern, Maunder, Schwartz, & Gurevich, 2012).

Palmer and Spaid (1996) surveyed ninety-one Fire Fighters (FF), EMTs, and
Paramedics (Ps) employed by Salt Lake County Fire Department. Three specific
hypotheses were tested: 1) FF/EMT-Ps who scored high on burnout will also score high
on authoritarianism; 2) FF/EMT-Ps who scored high on burnout also will score high on
inner-directedness; and 3) FF/EMT-Ps who scored high on burnout also will score high on sensation seeking. In this descriptive study, FF/EMT-Ps completed four standardized instruments measuring authoritarianism, burnout, inner-directedness versus other-directedness, and sensation seeking. Firefighters who scored high on burnout also scored high on authoritarianism and on the sensation-seeking subscale of boredom. Burnout did not correlate with the overall sensation-seeking scale or with its other subscales (thrill, experience, and disinhibiting), or inner-directedness versus other-directedness (Palmer & Spaid, 1996).

The researchers suggested that a focus on control issues needs to be an integral part of programs for decreasing employee burnout among FF/EMT-Ps. Specific components of such programs should include stress management and counseling. In addition, management personnel need to be taught not only to assist direct-service staff, but also to recognize and deal with their own control issues as they affect job performance (Palmer & Spaid, 1996).

Lourel, Abdellaoui, Chevaleyre, Paltrier, and Gana, (2008) conducted a study to test Karasek’s Demand-control Model and psychological impact (burnout) among firefighters. Data were obtained from 101 volunteer French Firefighters. The dependent variables were emotional exhaustion, depersonalization, and personal accomplishment, as measured by Maslach Burnout Inventory (MBI). The predictor variables were job demands and job control as measured by an 18-item scale developed by Karasek.

The result indicated emotional exhaustion was predicted by job control. The paths from job demands to emotional exhaustion and to depersonalization were positive and significant. Respondent age was positively related to emotional exhaustion and
negatively related to depersonalization. Job demands predicted depersonalization and emotional exhaustion. This research showed the importance of the mechanisms relevant to psychological burnout among firefighters. Particular attention must be paid to counseling and psychological support for individuals in this population (Lourel et al., 2008).

Beaton and Murphy (1993) reports the results of an initial effort to develop and test a measure of the various sources of job-related stress in firefighter and paramedic emergency service workers. The researchers used a 57-item paper and pencil measure of occupational stressors in firefighter/Emergency Medical Technicians (EMTs) and firefighter/paramedics was developed and administered by anonymous mail survey.

More than 2,000 (50% rate of return) emergency service workers completed and returned the surveys. The responses of 1,730 firefighter/EMTs and 253 firefighter/paramedics were very similar in terms of the degree to which job stressors were bothersome. A factor analysis of replies yielded 14 statistically independent "Occupational Stressor" factors which together accounted for 66.3% of the instrument's variance. These Sources of Occupational Stress (SOOS) factor scale scores essentially did not correlate with a measure of the social desirability test-taking bias. Finally, SOOS factors were identified that correlated with job satisfaction and work-related morale of the respondents. Conflict with administration was the job stressor factor that most strongly correlated with reports of low job satisfaction and poor work morale in both study groups. The findings suggest that firefighter and paramedic job stress is very complicated and multi-faceted (Beaton & Murphy, 1993).
Jensen (2005) conducted a study to determine the relationships among sensation seeking, burnout, injury, and job satisfaction among firefighters. Participants included 93 firefighters from a southeastern fire department. Each participant was asked to fill out a packet of self-report surveys including a demographic form, Sensation Seeking Scale Form V, Maslach Burnout Inventory, Job Satisfaction Survey, Absenteeism form, and an On-The-Job Injury form. This exploratory study provided an initial assessment of personality in relation to burnout and injuries in firefighters. Basic descriptives and frequencies were used to describe the data from the sample.

The Maslach Burnout Inventory was assessed by summing the individual responses for each of the three dimensions: (a) emotional exhaustion, (b) depersonalization, and (c) personal accomplishment. Ninety-seven percent (n= 90) of the participants completed the questionnaire properly for emotional exhaustion and depersonalization. The personal accomplishment section of the questionnaire was completed correctly by 96% (n= 89) of the participants. High levels of emotional exhaustion and depersonalization together with lower levels of personal accomplishment reflect burnout. In the sample, emotional exhaustion ranged from 0 to 49 with a mean of 12.93 (SD= 10.87), which reflects a generally low score. Depersonalization ranged from 0 to 21 with a mean of 6.52 (SD= 4.71), which also reflects a generally low score. The range for personal accomplishment was 10 to 47 with a mean of 33.08 (SD= 8.85), which reflects a more moderate or average level score than the other two factors. Together these findings indicate that the participants in the current study were low in burnout. The MBI reliability (i.e., internal consistency) for each of the three factors was: (a) emotional exhaustion, $\alpha= .92$; (b) depersonalization, $\alpha= .53$; and (c) personal accomplishment, $\alpha=$
Emotional exhaustion and personal accomplishment had good reliability; however, depersonalization has well below accepted standards for reliability (Jensen, 2005).

According to Prati, Pietrantoni, and Cicognani (2010), rescue workers are frequently exposed to highly stressful situations during their everyday work activity. Stress and coping theory emphasizes the interaction between primary and secondary appraisal in determining coping responses to stressful events and quality of life. According to Social Cognitive Theory, stress reactions depend on self-appraisal of coping capabilities. The study investigated whether self-efficacy moderates the relationship between stress appraisal and professional quality of life. A self-administered questionnaire was submitted to a sample of 451 rescue workers (firefighters, paramedics, and medical technicians), including the Professional Quality of Life Scale, which measures three dimensions of emergency workers’ quality of working life: compassion fatigue, burnout, and compassion satisfaction.

Multiple regression analyses indicated that the relationship between stress appraisal and professional quality of life was significant only among rescue workers with low levels of self-efficacy but not among those with higher levels of self-efficacy. These results confirmed the expectations based on Social Cognitive Theory that self-efficacy buffers the impact of perceived stressful encounters on professional quality of life. Results suggest the usefulness of interventions aimed at increasing rescue workers’ psychosocial skills (Pietrantoni, & Cicognani, 2010),
Suicide Hotline Workers

In an original paper, Ingram, Ringle, Hallstrom, Schill, Gohr, and Thompson (2007) described over 300,000 crisis calls made to a large national hotline over a 5-year period. Callers consisted of males and females between the ages of 10 and 89. Overall, a slight majority of callers were first time callers (52%) and most (73%) sought assistance with issues related to parenting, youth concerns, and mental health. Across the lifespan, issues dealing with loneliness increased with age whereas depression-related calls decreased. Additionally, females were more likely than their male counterparts to call the hotline by over a 2- to 1-margin. Findings lend preliminary support to the efficacy of crisis call centers to utilize a flexible, yet well-defined problem-solving approach to assist those of all ages calling with the wide range of problems. What impact does helping people in crisis have on the call center worker?

Rod and Ashill (2013) conducted a study to draw on various models of burnout and test hypotheses relating to anticipated differences in the burnout process between inbound versus outbound call center agents. This was achieved by comparing the magnitude of the relationships in the sequence of customer stressors; emotional exhaustion; depersonalization; reduced personal accomplishment across a sample of inbound and outbound call center agents working in a large retail bank call center in New Zealand. Data were collected from inbound and outbound call center agents of a large retail bank call center in New Zealand via a self-administered survey questionnaire electronically distributed to all 195 call center agents working in the bank’s two call center locations. Data obtained from the call center agents were analyzed using the SEM-based partial least squares (PLS) methodology.
The findings revealed significant differences between inbound and outbound call center agents in terms of the extent to which emotional exhaustion impacts depersonalization as well as the extent to which depersonalization influences feelings of reduced personal accomplishment. The research advances understanding of differences in the burnout process as perceived by inbound versus outbound call center agents. Call center management might consider improving the work environment to bring about greater job discretion/autonomy, greater job variety and performance monitoring in order to attenuate the stronger impact of these relationships in an inbound context (Rod & Ashill, 2013).

Healy and Bramble (2003) stated that there are high rates of labor turnover in the call center sector and the aforementioned is indicative of widespread employee ‘burnout’. However, few studies have formally investigated the frequency or antecedents of job burnout for this particular group of workers. The researchers presented the results of a case study, undertaken within the call center of a large Australian public-sector utility firm, which explores workers’ experiences of job burnout using a combination of quantitative and qualitative methods.

Their results support earlier claims that call center workers are at least as susceptible to burnout as workers in other occupations that have previously been considered the most ‘burnout-prone’. The researchers argued that the experience of job burnout for call center workers can be largely attributed to the repetitive nature of the work itself, the variability of customer demands, the pervasiveness of managerial surveillance, the remoteness (that is, telephone-based delivery) of customer-employee
exchanges, and the performance of 'emotional labor' by workers in the call center (Healy & Bramble, 2003).

Listening to individuals in crisis can lead to secondary traumatic stress and burnout. Galek (2011) examines the extent to which selected work-related variables differentially predict burnout and secondary traumatic stress (STS) and the degree to which social support mitigates both of these occupational stress syndromes. Multiple regression performed on responses from 331 professional chaplains found that: (1) the number of years worked in the same employment position was positively associated with burnout but not STS; (2) STS, but not burnout, was positively associated with the number of hours spent per week counseling patients who had had a traumatic experience; and (3) social support was negatively related to burnout and STS. Only specific sources of social support (supervisory support and family support), however, were negatively associated with burnout. Results highlight the need for counselors to be attuned to not only their clients but also to their own inner dynamics in order to mitigate the possible deleterious effects of their work.

Seeley (1995) postulated that in the end, burnout distorts the caring by misapplying the content and/or process of the calls, and so may be regarded as the culmination of several other types of distortion. Volunteering for a crisis line, even for suicide calls, cannot be a “power trip.” All behavior, regardless of the content of the calls, must be and remain moral and ethical. If serving the common good through the hotline is a heady experience for a volunteer that too will be temporary. Either the volunteer will burn-out and resign, or (preferably) will learn to be realistic in his or her approach to services for the common good, and make every effort to be the best possible.
McCarthy and Reese (1990) examined stressfulness in relationship to caller problems, as well as variables related to perceptions of stress. In this study self-efficacy was defined as “efficacy strength,” e.g., the crisis intervener’s belief that she or he could respond to a specific caller problem. Crisis intervention volunteers (N=39) rated the stressfulness of 35 caller problems and indicated reasons for their ratings. Volunteer self-efficacy and demographics were also assessed.

The researchers found that volunteers perceived problems as differentially stressful, with life-threatening problems rated as most stressful. Volunteers varied in their efficacy for dealing with different types of problems, feeling least efficacious for problem callers (e.g., obscene callers). Males reported higher efficacy across all problems. Most commonly endorsed reasons for stress were knowledge and skill deficits and problem complexity (McCarthy & Reese, 1990).

Castanheira and Chambel (2010) investigated the reduction of burnout in call centers by implementing human resource (HR) practices. The study examined the autonomy and perceived job demands as potential mediators between burnout and HR systems relationship using job demands-control (JD-C) model. The study samples 811 employees from 11 call centers. Results reveal the role of HR systems in reducing call center burnout by verifying the association of HR control systems with less autonomy increase in burnout and more emotional dissonance. The study filled a literature gap between burnout and HR systems by demonstrating the role of autonomy and job demands in the way HR systems decrease or improve exhaustion and cynicism in workers.
Deery, Iverson, and Walsh (2002) examined the nature of employment and the conditions of work in five telephone call centers in the telecommunications industry in Australia. Call center work typically requires high levels of sustained interpersonal interaction with customers which can lead to burnout and employee withdrawal. Customer service staff can also become targets of customer hostility and abuse. In addition, this form of work tends to involve extensive employee monitoring and surveillance with little job discretion or variety of tasks.

The researchers drew upon survey data from 480 telephone service operators to identify the factors that are associated with emotional exhaustion and the frequency of absence amongst the employees. A modeling of the data revealed that a number of job and work-setting variables affected the level of emotional exhaustion of employees. These included interactions with the customer, a high workload and a lack of variety of work tasks. Moreover, higher rates of absence were associated with emotional exhaustion.

Dunkley and Whelan (2006) investigated vicarious traumatization among telephone counselors. In particular, the influence of coping style, supervision, and personal trauma history on vicarious traumatization was examined. A total of 62 telephone counselors from trauma related fields completed a series of self-report measures. Generally, levels of traumatization (i.e. PTSD symptoms and disruptions in beliefs) were low. Nonetheless, five (8.2%) participants had total scores indicating 'high average' to 'very high' levels of disruption in beliefs. Also, 15 (25.9%) respondents reported that they experienced at least one PTSD symptom.
The researchers expected, non-productive coping was related to disruptions in cognitive beliefs, while dealing with the problem was not. In addition, having a strong supervisory working alliance was associated with lower levels of disruption in beliefs. Contrary to expectations, there were no significant predictors of PTSD symptoms despite a positive correlation with personal trauma history. In conclusion, vicarious traumatization is of concern for telephone counselors. Efforts to address its impact should focus on developing effective coping styles and enhancing the quality of supervision (Dunkley & Whelan, 2006).

Social Workers

According to Braford and Whelton (2010), burnout is a major concern in human service occupations as it has been linked to turnover, absenteeism, a reduction in the quality of services, numerous physical and psychological disorders, and a disruption in interpersonal relations. Child and youth care workers are especially susceptible to burnout as the inherent challenges of working within the life-space of high-risk children and youth causes difficulties in attracting and retaining qualified employees.

The researcher conducted a study in which burnout was measured in a group of 94 child and youth care workers from 8 agencies in a Western Canadian city using the three dimensional model of the Maslach Burnout Inventory (MBI). The MBI conceptualizes burnout as emotional exhaustion, depersonalization, and a lack of a sense of personal accomplishment. Among these child and youth care workers each of the three dimensions of burnout was predicted by a combination of work environment, personality, and social support.
The results of the study indicated that although child and youth care workers are mentally and physically exhausted, they are still fairly engaged and feel a high degree of pride and accomplishment in their field. The finding that child and youth care workers are emotionally drained is not surprising considering that child and youth care is an exceedingly challenging profession. Although it was initially hypothesized that dimensions, this was not the case. On the contrary, child and youth care workers experienced relatively low levels of depersonalization and high levels of personal accomplishment (Braford & Whelton, 2010).

Font (2012) conducted a study using caseworker and agency data from the National Survey of Child and Adolescent Well-Being to explore the relationship among employment characteristics, workplace opportunities for need satisfaction, and burnout among child welfare workers. In a four-step process, linear-regression models are estimated to determine whether employment characteristics are associated with worker burnout and to test whether workplace opportunities for achievement, autonomy, and affiliation mediate the relationships.

Font (2012) found that annual salary, adoption work, and whether the agency operates under a consent decree to be negatively associated with burnout. Opportunities for achievement, autonomy, and affiliation mediate the association between consent decrees and burnout, but worker pay and adoption work remain statistically significant inverse predictors of burnout.

Zosky (2010) explored child welfare workers who are predominantly cognitive in their personality type, rather than emotionally predominant, experience less burnout in their work. The thinking versus feeling and sensing versus intuition poles of the Myers-
Briggs Type Indicator were used to determine predominance in cognitive or emotional personality type and the Maslach Burnout Inventory was used to measure burnout. There was no statistical difference found on burnout scores based on personality type. These results have implications for child welfare organizations and on the recruitment and retention of a qualified work force. Selective recruitment based on personality type may not contribute to better retention of workers.

According to Kim, Ji, and Kao (2011), the high risk of burnout in the social work profession is well established, but little is known about burnout’s impact on the physical health of social workers. Their article examined the relationship between burnout and physical health, using data from a longitudinal study of social workers. California-registered social workers (N = 406) were surveyed annually over a three-year period. Using structural equation modeling, the authors conducted a path analysis to test whether burnout predicted changes in physical health over time. The results showed that social workers with higher initial levels of burnout later reported more physical health complaints. Moreover, higher levels of burnout led to a faster rate of deterioration in physical health over a one-year period.

Hansung and Stoner (2008) examined the main and interactive effects of role stress, job autonomy, and social support in predicting burnout and turnover intention among social workers. The study included a subsample of 346 social workers identified from a cross-sectional random survey of 1,500 California state-registered social workers. Adjusted for age, gender, organizational tenure, and annual salary, structural equation analyses revealed that role stress had a positive direct effect on burnout. The variables of
social support and job autonomy had a negative direct effect on turnover intention, but not on burnout.

The results indicated that job autonomy interacted with role stress in predicting burnout, while social support interacted with role stress in predicting turnover intention. The study results suggest that creating decentralized job conditions is essential for preventing burnout, and that building supportive job conditions is needed to retain social workers who are experiencing high role stress (Hansung & Stoner, 2008).

Humama (2012) examined sense of burnout among 126 social workers who directly treat children and adolescents within the human service professions. Burnout was investigated in relation to social workers’ demographic characteristics (age, family status, education, and seniority at work), extrinsic and intrinsic work conditions, and social support by colleagues, direct supervisors, and organization managers. The findings indicated, on average, a moderate intensity of burnout among the social workers who directly treat children and adolescents. Burnout was significantly negatively correlated with age, seniority, intrinsic (psychological) work conditions, and social support within the organization. Colleague and supervisor support contributed significantly to explaining the variance in burnout intensity.

Sprang, Craig, and Clark (2011) described the predictors of secondary traumatic stress and burnout in a national sample of helping professionals, with a specific focus on the unique responses of child welfare (CW) workers. Specific worker and exposure characteristics were examined as possible predictors of forms of occupational distress in a sample of 669 professionals from across the country who responded to mailed (e-mail and post) invitations to participate in an online survey. Email and home mailing addresses
were secured from licensure boards and professional membership organizations in six states from across the country that had high rates of child related deaths in 2009.

Respondents completed the Professional Quality of Life IV survey to ascertain compassion fatigue (CF) and burnout symptoms. Being male, young, Hispanic, holding rural residence, and endorsing a lack of religious participation were significant predictors of secondary traumatic stress. Similarly, being male and young predicted high burnout rates, while actively participating in religious services predicted lower burnout. Child welfare worker job status as a professional was significantly more likely to predict compassion fatigue and burnout compared to all other types of behavioral healthcare professionals. Based on the findings from this study, strategies for enhancing self-care for child welfare workers, and describes the essential elements of a trauma-informed child welfare agency that addresses secondary traumatic stress and burnout (Sprang, Craig, & Clark, 2011).

According to Savicki and Cooley (1994), child protective service (CPS) workers experience working conditions that lead to burnout. Although theorists describe burnout as a phenomenon that develops over time, few studies have taken a longitudinal approach to describe its course. To test the hypotheses that (a) burnout remains the same across time, and that (b) environmental conditions are related to change in burnout, 64 CPS workers were followed over an average 18-month period. All scales of the Maslach Burnout Inventory showed significantly increased burnout. Environmental factors measured by the Work Environment Scale and a Work Hassles scale significantly related to change in burnout with initial levels of burnout controlled (emotional exhaustion $R^2 = 0.465$, depersonalization $R^2 = 0.432$, personal accomplishment $R^2 = 0.431$). Several
methodological difficulties in previous longitudinal burnout studies were avoided: namely, only one type of job was used, all subjects remained in the same job across the follow-up, and subjects were new to the position at the beginning of the study.

Theoretical Frameworks

In order to better understand the phenomenon of the burnout, the researcher utilized the following theoretical frameworks: Maslow's Hierarchy of Needs, Herzberg's Motivational-Hygiene Theory, Maslach's Burnout Model, and Job Demands Resources Model.

In his influential paper of 1943, A Theory of Human Motivation, the American psychologist Abraham Maslow proposed that healthy human beings have a certain number of needs, and that these needs are arranged in a hierarchy, with some needs (such as physiological and safety needs) being more primitive or basic than others (such as social and ego needs). Maslow's so-called 'hierarchy of needs' is often presented as a five-level pyramid, with higher needs coming into focus only once lower, more basic needs are met (Burton, 2013).

Maslow called the bottom four levels of the pyramid 'deficiency needs' because a person does not feel anything if they are met, but becomes anxious if they are not. Thus, physiological needs such as eating, drinking, and sleeping are deficiency needs, as are safety needs, social needs such as friendship and sexual intimacy, and ego needs such as self-esteem and recognition. In contrast, Maslow called the fifth level of the pyramid a 'growth need' because it enables a person to 'self-actualize' or reach his fullest potential as a human being. Once a person has met his deficiency needs, he can turn his attention
to self-actualization; however, only small minorities of people are able to self-actualize because self-actualization requires uncommon qualities such as honesty, independence, awareness, objectivity, creativity, and originality (Burton, 2013).

The researcher will use this theoretical framework to frame his view on the type of job burnout that deals with one’s personal accomplishment. According to this theory, a person’s self-esteem, personal worth, and social recognition are important. Work plays an important role in fulfilling the aforementioned needs. It is important for someone to feel good about what they do, and have a sense that they are accomplishing something worthwhile at work. Instead of fulfillment and satisfaction one should get from work the adverse might occur, feeling overworked, taking advantage of, and “burnt out” (Burton, 2013; Maslach, Schaufeli, & Leiter, 2002).

The Herzberg’s motivation-hygiene theory also known as the two-factor theory states that there are certain factors in the workplace that cause job satisfaction, while a separate set of factors cause dissatisfaction. This theoretical framework was developed by Frederick Herzberg, a psychologist, who theorized that job satisfaction and job dissatisfaction act independently of each other (Herzberg, Mausner, & Snyderman, 1959).

This theoretical prospective argues that there are two fundamental factors that attributes to job satisfaction. Individuals are not content with the satisfaction of lower-order needs at work, for example, those associated with minimum salary levels or safe and pleasant working conditions. Rather, individuals look for the gratification of higher-level psychological needs having to do with achievement, recognition, responsibility, advancement, and the nature of the work itself (Herzberg, Mausner, & Snyderman, 1959).
This theoretical perspective parallels Maslow's theory of a need hierarchy. However, Herzberg added a new dimension to this theory by proposing a two-factor model of motivation, based on the notion that the presence of one set of job characteristics or incentives leads to worker satisfaction at work, while another and separate set of job characteristics leads to dissatisfaction at work. Thus, satisfaction and dissatisfaction are not on a continuum with one increasing as the other diminishes, but are independent phenomena. This theory suggests that to improve job attitudes and productivity, administrators must recognize and attend to both sets of characteristics and not assume that an increase in satisfaction leads to decrease in unpleasurable dissatisfaction (Herzberg, Mausner, & Snyderman, 1959).

The motivation-hygiene theory was developed from data collected by Herzberg from interviews with a large number of engineers and accountants in the Pittsburgh area. From his analysis of the data, he found that job characteristics related to what an individual does—that is, to the nature of the work he performs—apparently have the capacity to gratify such needs as achievement, competency, status, personal worth, and self-realization, thus making him happy and satisfied. However, the absence of such gratifying job characteristics does not appear to lead to unhappiness and dissatisfaction. Instead, dissatisfaction results from unfavorable assessments of such job-related factors as company policies, supervision, technical problems, salary, interpersonal relations on the job, and working conditions.

Thus, if management wishes to increase satisfaction on the job, it should be concerned with the nature of the work itself—the opportunities it presents for gaining status, assuming responsibility, and for achieving self-realization. If, on the other hand,
management wishes to reduce dissatisfaction, then it must focus on the job environment policies, procedures, supervision, and working conditions. If management is equally concerned with both, then managers must give attention to both sets of job factors (Herzberg, Mausner, & Snyderman, 1959).

Maslach, Schaufeli, and Leiter (2001) formulated a model which focuses on the degree of match, or mismatch, between the person and six domains of his or her job environment. The greater the gap, or mismatch, between the person and the job, the greater the likelihood of burnout; conversely, the greater the match (or fit), the greater the likelihood of engagement with work. One new aspect of this approach is that the mismatch focus is on the enduring working relationship people have with their job. Mismatches arise when the process of establishing a psychological contract leaves critical issues unresolved, or when the working relationship changes to something that a worker finds unacceptable. The mismatches lead to burnout, which in turn leads to various outcomes.

This model has brought order to the wide variety of situational correlates by proposing six areas of work life that encompass the central relationships with burnout: workload, control, reward, community, fairness, and values. Burnout arises from chronic mismatches between people and their work setting in terms of some or all of these six areas. This is a comprehensive model that includes the full range of organizational factors found in research related to burnout. Despite their close interrelationships, each area brings a distinct perspective to the interactions of people with their work settings. These six areas of work life come together in a framework that encompasses the major organizational antecedents of burnout.
According to Maslach, Schaufeli, and Leiter (2001), mismatch in workload is generally found as excessive overload, through the simple formula that too many demands exhaust an individual’s energy to the extent that recovery becomes impossible. A workload mismatch may also result from the wrong kind of work, as when people lack the skills or inclination for a certain type of work, even when it is required in reasonable quantities. Emotional work is especially draining when the job requires people to display emotions inconsistent with their feelings. Generally, workload is most directly related to the exhaustion aspect of burnout.

There can also be a mismatch in the control factor of work. A mismatch in control is generally related to the inefficacy or reduced personal accomplishment aspect of burnout. Mismatches in control most often indicate that individuals have insufficient control over the resources needed to do their work or have insufficient authority to pursue the work in what they believe are the most effective manner. Individuals who are overwhelmed by their level of responsibility may experience a crisis in control as well as in workload. This mismatch is reflected as one of responsibility exceeding one’s authority. It is distressing for people to feel responsible for producing results to which they are deeply committed while lacking the capacity to deliver on that mandate (Maslach, Schaufeli, & Leiter (2001).

Another type of mismatch occurs when there is a lack of appropriate rewards for the work people do. Sometimes these may be insufficient financial rewards, as when people are not receiving the salary or benefits commensurate with their achievements. Even more important at times is the lack of social rewards, as when one’s hard work is ignored and not appreciated by others. This lack of recognition devalues both the work
and the workers. In addition, the lack of intrinsic rewards (such as pride in doing something of importance and doing it well) can also be a critical part of this mismatch. Lack of reward is closely associated with feelings of inefficacy (Maslach, Schaufeli, & Leiter, 2001).

Connectivity is also a contributing or buffering mechanism for job burnout. This mismatch occurs when people lose a sense of positive connection with others in the workplace. People thrive in community and function best when they share praise, comfort, happiness, and humor with people they like and respect. In addition to emotional exchange and instrumental assistance, this kind of social support reaffirms a person's membership in a group with a shared sense of values. Unfortunately, some jobs isolate people from each other, or make social contact impersonal. However, what is most destructive of community is chronic and unresolved conflict with others on the job. Such conflict produces constant negative feelings of frustration and hostility, and reduces the likelihood of social support (Maslach, Schaufeli, & Leiter, 2001).

According to Maslach, Schaufeli, & Leiter (2001), serious mismatch between the person and the job occurs when there is not perceived fairness in the workplace. Fairness communicates respect and confirms people's self-worth. Mutual respect between people is central to a shared sense of community. Unfairness can occur when there is inequity of workload or pay, when there is cheating, or when evaluations and promotions are handled inappropriately. If procedures for grievance or dispute resolution do not allow for both parties to have a voice, then those will be judged as unfair. A lack of fairness exacerbates burnout in at least two ways. First, the experience of unfair treatment is emotionally
upsetting and exhausting. Second, unfairness fuels a deep sense of cynicism about the workplace.

Maslach, Schaufeli, and Leiter (2001) sixth area of mismatch occurs when there is a conflict between values. In some cases, people might feel constrained by the job to do things that are unethical and not in accord with their own values. For example, in order to make a sale or to obtain a necessary authorization, they might have to tell a lie or be otherwise deceptive or not forthcoming with the truth. In other instances, there may be a mismatch between their personal aspirations for their career and the values of the organization. People can also be caught between conflicting values of the organization, as when there is a discrepancy between the mission statement and actual practice.

The Job Demands Resources (JDR) Model proposes that working conditions can be categorized into 2 broad categories, job demands and job resources that are differentially related to specific outcomes. The JDR model proposes that the development of burnout follows two processes. The first process, demanding aspects of work (i.e., extreme job demands) can lead to constant overtaxing and in the end exhaustion. Exhaustion is one of the types of job burnout that was also described by Maslach in the burnout model (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001).

In the second process, the lack of resources complicates meeting of the job demands, which further leads to withdrawal behavior. The long term result of the aforementioned withdrawal behavior is disengagement from work. This model concentrates on the unique contribution of job demands and job resources to explaining variances in each burnout component (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001).
The researcher will use this theoretical framework to frame his view on the component of job burnout that deals with emotional exhaustion and depersonalization as described by Maslach et al. (2002). According to this theory, work demands can be categorized into two categories: job demands and job resources. The increase of job demands can lead the first responder being overworked, feeling like they are overwhelmed, and can lead to the first responder being emotionally exhausted (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001).

The imbalance of job demands and resources can lead to the first responder to disengage from work (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). When someone disengages or remove himself or herself emotionally from their job, they are depersonalizing. This is a withdrawal as a result of pressure from bosses, peers, employees or customers that is feel very intensely (Maslach, Schaufeli, & Leiter, 2001).
CHAPTER III
METHODOLOGY

Chapter III presents the methods and procedures that were used in conducting the outcome evaluation. The following are described in this chapter: research design, description of the site, sample population, instrumentation, treatment of data, and limitations of the study.

Research Design

Both descriptive and exploratory research was used in this study. The study was designed to obtain data in order to describe and explain whether first responders in Metropolitan Atlanta experience burnout, taking in consideration demographic factors such as primary first responder role, age, gender, marital status, and years of employment. The study also measured the three types of burnout; emotional exhaustion, depersonalization, and personal accomplishment (Maslach, Schaufeli, & Leiter, 2001). Lastly, this study measured if their perceived awareness of OSHA regulations impacts their level of job burnout.

The descriptive and exploratory research design allowed for the use of a descriptive analysis of the demographic profile of the survey respondents. Also, the research design facilitated the explanation of the statistical relationship between the factors that contribute to burnout, such as emotional exhaustion, depersonalization, and
personal accomplishment among first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970.

Description of the Site

The study was conducted in Atlanta, Georgia. Atlanta is the largest metropolitan city in the state of Georgia. The surveys were administered at four (4) local fire departments, three (3) police stations, and a (1) crisis hotline call center in Atlanta. The sites were selected because the target population readily available. Also, another reason for selecting the aforementioned sites was because the administrators and staff were cooperative, accessible and showed a genuine interest in the purpose and outcome of the proposed research.

Sample and Population

The target population for this research study was composed first responders in Metropolitan Atlanta, which included police officers, emergency medical services personnel (EMS), crisis line workers, fire fighters, and social workers that are protected under the Occupational Safety and Health Act of 1970. The Institutional Review Board (IRB) at Clark Atlanta University approved the collecting of data from Atlanta University Center Students. One hundred (100) respondents were selected utilizing non-probability purposeful sampling among the target population.

Instrumentation

The research study employed a survey questionnaire entitled A Study of First Responders and Burnout as Governed by the Occupational Safety and
Health Act of 1970 (OSHA) in Metropolitan Atlanta Georgia. The survey questionnaire consisted of two sections with a total of thirty-one (31) questions. Section I solicited demographic information about the characteristics of the respondents. Section II employed the Maslach Burnout Inventory in order to measure burnout among the respondents.

Section I of the survey questionnaire consisted of six questions (1-6). Of the six questions, selected questions were used as the independent variables for the study. The questions in Section I were concerned with the respondent’s primary role at work, gender, age, marital status, length of employment as a First Responder, and their awareness of the Occupational Safety and Health Agency (OSHA) standards surrounding their profession. The aforementioned questions provided information for the presentation of a demographic profile of the respondents of the survey.

Section II consisted of twenty-five questions to access burnout (7 thru 28). Section II utilized the Maslach Burnout Inventory (MBI) which measured to what extent job burnout existed among the respondents about how exhausting or draining their job is (emotional exhaustion), how they deal with people (depersonalization), and their sense of achievement (personal accomplishment) at their job. There were three (29-31) questions added by the researcher to access the extend that the perceived awareness of OSHA regulations impacts their level of job burnout. Item on the Maslach Burnout Inventory (MBI) were responded to on a four point continuum Likert scale. The
scale was as follows: 1=Strongly Disagree; 2=Disagree; 3=Agree; 4=Strongly Agree.

Treatment of Data

The Statistical Package for the Social Sciences (SPSS) was used to analyze the data. The analysis used descriptive statistics, which included frequency distribution and cross tabulation. The test statistic used for this study was chi squared.

Frequency distributions were used to analyze and summarize each of the variables in the study. A frequency distribution of demographic data was also used to gain insight about the respondents of the study.

Cross tabulations were utilized to demonstrate the statistical relationship between the independent variables and the dependent variable. Cross tabulations were conducted between primary role at work, gender, age, marital status, length of employment as a First Responder, and their awareness of the Occupational Safety and Health Agency (OSHA) standards surrounding their profession, and three types of job burnout. Cross tabulations were also conducted between primary role at work, gender, age, marital status, length of employment as a First Responder, and their awareness of the Occupational Safety and Health Agency (OSHA) standards surrounding their profession, and the three types of job burnout (emotional exhaustion, depersonalization, and personal accomplishment) among first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970.
Two test statistics were employed. The first test was PHI (Φ), which is a symmetric measure of association that is used to demonstrate the strength of relationship between two or variables. The following values are associated with phi:

- .00 to .24 “no relationship”
- .25 to .49 “weak relationship”
- .50 to .74 “moderate relationship”
- .75 to 1.00 “strong relationship”

The second test statistic that the researcher utilized was chi square. Chi Square was used to test whether there was a significant statistical relationship at the .05 level of probability among the variables of the study.

Limitations of the Study

There were limitations of the study. The number of surveys administered (108) will not allow the researcher to generalize to the overall population. The number of surveys administered does not adequately represent the vast majority of first responders in the Atlanta Metropolitan area. The researcher changed the scale used in the original Maslach Burnout Inventory to the Likert scale, and transcribed the score key to adjust for the aforementioned. The researcher also produced three questions that measured the extent to which their perceived awareness of OSHA regulations impacts their level of job burnout. The survey has not been used in a previous study.
CHAPTER IV
PRESENTATION OF FINDINGS

The purpose of this chapter was to present the findings of the study in order to describe and explain job burnout among first responders in Metropolitan Atlanta, taking in consideration demographic factors such as primary role at work, gender, age, marital status, and length of employment as a First Responder. This chapter also presents the findings regarding the level of emotional exhaustion, depersonalization, and personal accomplishment, and awareness of OSHA regulations in regards to burnout. The findings of the study are organized into two sections: demographic data and research questions and hypotheses.

Demographic Data

This section provides a profile of the study respondents. Description statistics were used to analyze the following: primary role at work, gender, age, marital status, length of employment as a First Responder, and their awareness of the Occupational Safety and Health Agency (OSHA) standards surrounding their profession.

A target population for the research was composed of first responders in Metropolitan Atlanta, which included police officers, emergency medical services personnel (EMS), crisis line workers, fire fighters, and social workers that are protected under the Occupational Safety and Health Act of 1970. One hundred and eight (108)
respondents were selected utilizing non-probability purposeful sampling among the target population.

The first responders surveyed (108) indicated that their primary role at work was a crisis line worker (31), EMT or EMS (9), social worker (29), police officer (22), or fire fighter (17). The responders indicated that their age group was 18-24 (2), 25-31 (29), 32-38 (42), 39-45 (20), 46-52 (9), 53-59 (5), and 60 & above (1). These survey participants were composed of 56 males and 52 females. Participants indicated that they were never married (32), married (48), divorced (19), separated (5) and widowed (4). Participants indicated that they have been employed as a first responder for 0-3 years (53), 4-6 years (15), 7-9 years (18), 10-12 years (5), 13-15 years (10), and 16 or more years (7). Of the 108 surveys participants, the majority (70) indicated that they were aware of the Occupational Safety and Health Administration (OSHA) standards surrounding my profession. Table 1 is a profile of the study participants. It presents the frequency distribution of the demographic variables used for the study.
Table I

Demographic profile of study participants

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Your Primary Role at Work</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crisis Line Worker</td>
<td>31</td>
<td>28.7</td>
</tr>
<tr>
<td>EMS/EMT</td>
<td>9</td>
<td>8.3</td>
</tr>
<tr>
<td>Social Worker</td>
<td>29</td>
<td>26.9</td>
</tr>
<tr>
<td>Police</td>
<td>22</td>
<td>20.4</td>
</tr>
<tr>
<td>Fire Fighter</td>
<td>17</td>
<td>15.7</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>56</td>
<td>51.9</td>
</tr>
<tr>
<td>Female</td>
<td>52</td>
<td>48.1</td>
</tr>
<tr>
<td><strong>Age Group</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-24</td>
<td>2</td>
<td>1.9</td>
</tr>
<tr>
<td>25-31</td>
<td>29</td>
<td>26.9</td>
</tr>
<tr>
<td>32-38</td>
<td>42</td>
<td>38.9</td>
</tr>
<tr>
<td>39-45</td>
<td>20</td>
<td>18.5</td>
</tr>
<tr>
<td>46-52</td>
<td>9</td>
<td>8.3</td>
</tr>
<tr>
<td>53-59</td>
<td>5</td>
<td>4.6</td>
</tr>
<tr>
<td>60 &amp; Above</td>
<td>1</td>
<td>.9</td>
</tr>
</tbody>
</table>
Table I continued........

Demographic profile of study participants

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never Married</td>
<td>32</td>
<td>29.6</td>
</tr>
<tr>
<td>Married</td>
<td>48</td>
<td>44.4</td>
</tr>
<tr>
<td>Divorced</td>
<td>9</td>
<td>17.6</td>
</tr>
<tr>
<td>Separated</td>
<td>5</td>
<td>4.6</td>
</tr>
<tr>
<td>Widowed</td>
<td>4</td>
<td>3.7</td>
</tr>
<tr>
<td><strong>I Have Been Employed as a First Responder</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-3 Years</td>
<td>53</td>
<td>49.1</td>
</tr>
<tr>
<td>4-6 Years</td>
<td>15</td>
<td>13.9</td>
</tr>
<tr>
<td>7-9 Years</td>
<td>18</td>
<td>16.7</td>
</tr>
<tr>
<td>10-12 Years</td>
<td>5</td>
<td>4.6</td>
</tr>
<tr>
<td>13-15 Years</td>
<td>10</td>
<td>9.3</td>
</tr>
<tr>
<td>16 &amp; Above Years</td>
<td>7</td>
<td>6.5</td>
</tr>
<tr>
<td><strong>I am Aware of OSHA Standards Surrounding My Profession</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NO</td>
<td>37</td>
<td>34.6</td>
</tr>
<tr>
<td>Yes</td>
<td>70</td>
<td>65.4</td>
</tr>
<tr>
<td>No Answer</td>
<td>1</td>
<td>0.9</td>
</tr>
</tbody>
</table>
As indicated in Table 1, the typical respondent of the study was a married male between the ages of 32-38 years old, whose primary role at work was a crisis line worker, and who has been employed as a first responder for less than 3 years.

Research Questions and Hypotheses

There were six research questions and six null hypotheses in the study. The section provides an analysis of the research questions and a testing of the null hypotheses.

Research Question 1: Is there job burnout among first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970?

Hypothesis 1: There is no job burnout among first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970?

Job Burnout among First Responders

According to Maslach job burnout could be best explained utilizing three components: emotional exhaustion, depersonalization, and personal accomplishment. The phenomenon of job burnout is multifaceted. To examine or understand job burnout, a multifaceted approach must be utilized (Maslach & Leiter, 2008).

The three components of job burnout were scored using the scale of low, moderate, and high. Each dimension was scored separately using different subscales. If a respondent rates low in an area, it means that the respondent has a low chance of burnout, and the individual is feeling resourceful in that dimension or area (Maslach, Jackson, & Leiter, 1996).

If a respondent scores moderate in an area, it is suggested that the respondent take time for a serious re-evaluation of their job situation. It means that the respondent is
experiencing an elevated level of burnout in that category. A moderate score indicates that the respondent is not dealing with that component very well, and some changes needs to be made in their job situation (Maslach, Jackson, & Leiter, 1996).

If a respondent scores high in an area, it means that the respondent has a high level of burnout happening, or that they have a high chance of burnout occurring in the near future if it has not hit already. This calls for reprioritization of something in the respondent’s life/work/relationships/etc. The respondent is in need of immediate change in their situation. Something needs to be different in their job situation, before mental health or physical problems occur (Maslach, Jackson, & Leiter, 1996).

Table 2 is a frequency distribution of the computed variable level of emotional exhaustion. In order to determine the true arithmetic mean of the variable, the values (1 thru 4) from the nine sub-facets were calculated by dividing the sum of the set of figures by the numbers of figures. The following is an example of the calculations:

\[
\frac{3 + 2 + 3 + 4 + 3 + 3 + 4 + 1 + 1}{9} = 2.66.
\]
Table 2

EMOTEXH: Computed Variable Level of Emotional Exhaustion

<table>
<thead>
<tr>
<th>Value</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Level</td>
<td>2</td>
<td>1.8</td>
</tr>
<tr>
<td>Moderate Level</td>
<td>41</td>
<td>38.0</td>
</tr>
<tr>
<td>High Level</td>
<td>65</td>
<td>60.2</td>
</tr>
<tr>
<td>Total</td>
<td>108</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Mean 2.58  Std. Dev .531

As shown in Table 2, first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970 experience a high level (60.2%) of emotional exhaustion. Of the 108 respondents, 38.0% are experiencing a moderate level of emotional exhaustion. Only 1.8% of the respondents scored low in this burnout category.

Table 3 is a frequency distribution of the computed variable level of depersonalization. In order to determine the true arithmetic mean of the variable, the values (1 thru 4) from the five sub-facets were calculated by dividing the sum of the set of figures by the numbers of figures. The following is an example of the calculations:

\[
\frac{(4 + 2 + 3 + 4 + 3)}{5} = 3.2.
\]
Table 3
DEPERSO: Computed Variable Level of Depersonalization

<table>
<thead>
<tr>
<th>Value</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Level</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Moderate Level</td>
<td>35</td>
<td>33.0</td>
</tr>
<tr>
<td>High Level</td>
<td>71</td>
<td>67.0</td>
</tr>
<tr>
<td>Total</td>
<td>106</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Mean 2.66     Std. Dev .473

As shown in Table 3, first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970 experience a high level (67.0%) of depersonalization. Of the 106 respondents, 33.0% are experiencing a moderate level of emotional exhaustion. There were no (0.0%) respondents that scored low in this burnout category.

Table 4 is a frequency distribution of the computed variable level of personal accomplishment. In order to determine the true arithmetic mean of the variable, the values (1 thru 4) from the eight sub-facets were calculated by dividing the sum of the set of figures by the numbers of figures. The following is an example of the calculations:

\[(3 + 2 + 3 + 4 + 3 + 3 + 4 + 2) / 9 = 2.66.\]
Table 4

PERACOMP: Computed Variable Level of Personal Accomplishment

<table>
<thead>
<tr>
<th>Value</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Level</td>
<td>41</td>
<td>38.0</td>
</tr>
<tr>
<td>Moderate Level</td>
<td>48</td>
<td>44.4</td>
</tr>
<tr>
<td>High Level</td>
<td>19</td>
<td>17.6</td>
</tr>
<tr>
<td>Total</td>
<td>108</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Mean 1.79  Std. Dev .720

As shown in Table 4, first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970 experience a moderate level (44.4%) of personal accomplishment. Of the 108 respondents, 38.0% are experiencing a low level of personal accomplishment. Only 17.6% of the respondents scored high in this burnout category.

Table 5 is a frequency distribution of the computed variables EMOTEXH, DEPERSO, and PERACOMP to form the computed variable JOBBURN. The computed variable JOBBURN is level of job burnout experienced by first responders who are protected under the Occupational Safety and Health Act of 1970. In order to determine the true arithmetic mean of the variable, the values (1 thru 3) from the three sub-facets were calculated by dividing the sum of the set of figures by the numbers of figures. The following is an example of the calculations: \((3 + 2 + 3) / 3 = 2.66\).
As shown in Table 5, first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970 experience a moderate level (64.2%) of job burnout. Of the 106 respondents, 35.8% are experiencing a high level of personal accomplishment. There were no (0.0%) respondents who scored low in this burnout category.

Research Question 2: Is there a relationship between first responder perceived awareness of OSHA regulations and job burnout among first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970?

Hypothesis 2: There is no statistically significant relationship between first responder perceived awareness of OSHA regulations and job burnout among first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970.
**Awareness of OSHA Regulations and Job Burnout**

First responders were accessed for of their awareness of OSHA standards surrounding their profession by answering the closed ended question: I am aware of the Occupational Safety and Health Administration (OSHA) standards surrounding my profession with a response of yes or no.

Table 6 is a frequency distribution of the responses to the demographic question: I am aware of the Occupational Safety and Health Administration (OSHA) standards surrounding my profession. The respondents were asked to respond with a response of yes or no.

Table 6

<table>
<thead>
<tr>
<th>Value</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO</td>
<td>37</td>
<td>34.6</td>
</tr>
<tr>
<td>YES</td>
<td>70</td>
<td>65.4</td>
</tr>
<tr>
<td>Total</td>
<td>106</td>
<td>100.0</td>
</tr>
</tbody>
</table>

As shown in Table 6, first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970 were aware (65.4%) of the Occupational Safety and Health Administration (OSHA) standards surrounding their profession. Of the 106 respondents, 34.6% were not aware of the Occupational Safety and Health Administration (OSHA) standards surrounding their profession.
Table 7 is a cross tabulation of awareness of the Occupational Safety and Health Administration (OSHA) standards surrounding my profession by the computed variable job burnout. It shows the association of job burnout with the awareness of the OSHA guidelines of first responders surrounding their profession and indicates whether or not there was a statistically significant relationship between the two variables.

### Table 7

**Awareness of the Occupational Safety and Health Administration (OSHA) Standards Surrounding My Profession by Computed Variable Level of Job Burnout**

<table>
<thead>
<tr>
<th>Computed Variable Job Burnout</th>
<th>Low #</th>
<th>Low %</th>
<th>Moderate #</th>
<th>Moderate %</th>
<th>High #</th>
<th>High %</th>
<th>Total #</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO</td>
<td>0</td>
<td>0.0</td>
<td>21</td>
<td>20.0</td>
<td>15</td>
<td>14.3</td>
<td>36</td>
<td>34.3</td>
</tr>
<tr>
<td>YES</td>
<td>0</td>
<td>0.0</td>
<td>47</td>
<td>44.8</td>
<td>22</td>
<td>21.0</td>
<td>69</td>
<td>65.7</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>0.0</td>
<td>68</td>
<td>64.8</td>
<td>37</td>
<td>35.2</td>
<td>105</td>
<td>100.0</td>
</tr>
</tbody>
</table>

$\Phi = .00 \quad df = 1 \quad p = .319$

As indicated in Table 7, 14.3% of respondents that indicated that they were not aware of OSHA guidelines surrounding their profession also experienced a high level of job burnout. A majority (20.0%) of the respondents that indicated that they were not aware of OSHA guidelines surrounding their profession experienced a moderate level of job burnout.
As indicated in Table 7, 21.0% of the respondents that indicated that they were aware of OSHA guidelines surrounding their profession also experienced a high level of job burnout. A majority (44.8%) of the respondents that indicated that they were aware of OSHA guidelines surrounding their profession also experienced a moderate level of job burnout.

As shown in Table 7, the statistical measurement phi ($\Phi$) was employed to test for the strength of the relationship between awareness of the Occupational Safety and Health Administration (OSHA) standards surrounding my profession by the computed variable level of job burnout. There was no relationship ($\Phi = .00$) between the two variables. When the chi-squared statistical test for significance was applied, the null hypothesis was accepted ($p = .319$) indicating that there was no statistically significant relationship between the two variables at the .05 level of probability.

Research Question 3: There is no statistically significant relationship between the years of employment and job burnout among first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970.

Hypothesis 3: There is no statistically significant relationship between the years of employment and job burnout among first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970.

Table 8 is a cross tabulation of first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970 years of employment as a first responder by the computed variable job burnout. It shows the association of job
burnout with years of employment and indicates whether or not there was a statistically significant relationship between the two variables.

Table 8

Years of Employment by the Computed Variable Level of Job Burnout

<table>
<thead>
<tr>
<th>Years of Employment</th>
<th>Low #</th>
<th>Low %</th>
<th>Moderate #</th>
<th>Moderate %</th>
<th>High #</th>
<th>High %</th>
<th>Total #</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-3 years</td>
<td>0</td>
<td>0.0</td>
<td>33</td>
<td>31.1</td>
<td>19</td>
<td>17.9</td>
<td>52</td>
<td>49.1</td>
</tr>
<tr>
<td>4-6 years</td>
<td>0</td>
<td>0.0</td>
<td>8</td>
<td>7.5</td>
<td>7</td>
<td>6.6</td>
<td>15</td>
<td>14.2</td>
</tr>
<tr>
<td>7-9 years</td>
<td>0</td>
<td>0.0</td>
<td>12</td>
<td>11.3</td>
<td>5</td>
<td>4.7</td>
<td>17</td>
<td>16.0</td>
</tr>
<tr>
<td>10-12 years</td>
<td>0</td>
<td>0.0</td>
<td>4</td>
<td>3.8</td>
<td>1</td>
<td>0.9</td>
<td>5</td>
<td>4.7</td>
</tr>
<tr>
<td>13-15 years</td>
<td>0</td>
<td>0.0</td>
<td>6</td>
<td>5.7</td>
<td>4</td>
<td>3.8</td>
<td>10</td>
<td>9.4</td>
</tr>
<tr>
<td>16 or more years</td>
<td>0</td>
<td>0.0</td>
<td>5</td>
<td>4.7</td>
<td>2</td>
<td>1.9</td>
<td>7</td>
<td>6.6</td>
</tr>
<tr>
<td>Total</td>
<td>68</td>
<td>64.2</td>
<td>38</td>
<td>35.8</td>
<td>106</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[ \Phi = .133 \quad \text{df} = 5 \quad p = .868 \]

As indicated in Table 8, across all years of employment ranges, the majority of first responders scored in the moderate range in regards to job burnout. The majority (31.1) of first responders who indicated that they have been employed as a first responder for 0-3 years also scored in the moderate range. Nineteen percent (17.9%) of first responders who indicated that they have been employed as a first responder for 0-3 years also scored in the high on the burnout inventory.

The majority (7.5%) of first responders who indicated that they have been employed as a first responder for 4-6 years also scored in the moderate range. Seven
(6.6%) of first responders who indicated that they have been employed as a first responder for 4-6 years also scored in the high on the burnout inventory. The majority (11.3%) of first responders who indicated that they have been employed as a first responder for 7-9 years also scored in the moderate range. Five (4.7%) of first responders who indicated that they have been employed as a first responder for 7-9 years also scored in the high on the burnout inventory.

As shown in Table 8, the statistical measurement phi (Φ) was employed to test for the strength of the relationship between years of employment as a first responder by the computed variable job burnout. There was no relationship (Φ = .133) between the two variables. When the chi-squared statistical test for significance was applied, the null hypothesis was accepted (p = .868) indicating that there was no statistically significant relationship between the two variables at the .05 level of probability.

Research Question 4: Is there a relationship between the gender of first responder and job burnout among first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970?

Hypothesis 4: There is no statistically significant relationship between the gender of first responder and job burnout among first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970.

Table 9 is a cross tabulation of gender of first responders by the computed variable job burnout. It shows the association between gender and job burnout and indicates whether or not there was a statistically significant relationship between the two variables.
As indicated in Table 9, across both genders the majority of first responders survey, 68 (64.2%) scored in the moderate range. Of those respondents 37 (34.9%) were male and 31 (29.2%) were female. The remaining 38 (35.8%) respondents, majority female (20) scored in the high range in regards to burnout.

As shown in Table 9, the statistical measurement phi ($\Phi$) was employed to test for the strength of the relationship between gender by the computed variable level of job burnout. There was a no relationship ($\Phi = .068$) between the two variables. When the chi-squared statistical test for significance was applied, the null hypothesis was accepted ($p = .486$) indicating that there was no statistically significant relationship between the two variables at the .05 level of probability.

Research Question 5: Is there a relationship between age and job burnout among first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970?
Hypothesis 5: There is no statistically significant relationship between age and job burnout among first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970.

Table 10 is a cross tabulation of age group of first responders by the computed variable job burnout. It shows the association between age and job burnout and indicates whether or not there was a statistically significant relationship between the two variables.

<table>
<thead>
<tr>
<th>Age Group (in years)</th>
<th>Computed Variable Job Burnout</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
<td>#</td>
<td>%</td>
<td>Moderate</td>
<td>#</td>
<td>%</td>
</tr>
<tr>
<td>18-24</td>
<td>0</td>
<td>0.0</td>
<td>1</td>
<td>0.9</td>
<td>1</td>
<td>0.9</td>
</tr>
<tr>
<td>25-31</td>
<td>0</td>
<td>0.0</td>
<td>24</td>
<td>22.6</td>
<td>5</td>
<td>4.7</td>
</tr>
<tr>
<td>32-38</td>
<td>0</td>
<td>0.0</td>
<td>21</td>
<td>19.8</td>
<td>20</td>
<td>18.9</td>
</tr>
<tr>
<td>39-45</td>
<td>0</td>
<td>0.0</td>
<td>10</td>
<td>9.4</td>
<td>10</td>
<td>9.4</td>
</tr>
<tr>
<td>46-52</td>
<td>0</td>
<td>0.0</td>
<td>6</td>
<td>5.7</td>
<td>2</td>
<td>1.9</td>
</tr>
<tr>
<td>53-59</td>
<td>0</td>
<td>0.0</td>
<td>5</td>
<td>4.7</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>60 &amp; Above</td>
<td>0</td>
<td>0.0</td>
<td>1</td>
<td>0.9</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>0.0</td>
<td>68</td>
<td>64.2</td>
<td>38</td>
<td>35.8</td>
</tr>
</tbody>
</table>

$\Phi = .351$  
$\text{df} = 5$  
$p = .043$
As indicated in Table 10, across all age groups the majority of first responders survey, 68 (64.2) scored in the moderate range. Of those 68, one was in the 18-24 age range; 24 were in the 25-31 age range; 21 was in the 32-38 age range; 10 were in 39-45 age range; 6 were in 46-52 age range; 5 were in 53-59 age range; and 1 in the 60 and above age range. The remaining 38 (35.8%) respondents scored in the high range with the majority of those being from the age group of 32-38 (20).

As shown in Table 10, the statistical measurement phi (Φ) was employed to test for the strength of the relationship between gender by the computed variable level of job burnout. There was a weak relationship (Φ = .351) between the two variables. When the chi-squared statistical test for significance was applied, the null hypothesis was rejected (p = .043) indicating that there was a statistically significant relationship between the two variables at the .05 level of probability.

Research Question 6: Is there a relationship between marital status and job burnout among first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970?

Hypothesis 6: There is no statistically significant relationship between marital status and job burnout among first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970.

Table 11 is a cross tabulation of marital status of first responders by the computed variable job burnout. It shows the association between marital status and job burnout and indicates whether or not there was a statistically significant relationship between the two variables.
Table 11

Marital Status the Computed Variable Level of Job Burnout (N=106)

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Low #</th>
<th>Low %</th>
<th>Moderate #</th>
<th>Moderate %</th>
<th>High #</th>
<th>High %</th>
<th>Total #</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never Married</td>
<td>0</td>
<td>0.0</td>
<td>22</td>
<td>22.8</td>
<td>10</td>
<td>9.4</td>
<td>32</td>
<td>30.2</td>
</tr>
<tr>
<td>Married</td>
<td>0</td>
<td>0.0</td>
<td>25</td>
<td>23.6</td>
<td>21</td>
<td>19.8</td>
<td>46</td>
<td>43.4</td>
</tr>
<tr>
<td>Divorced</td>
<td>0</td>
<td>0.0</td>
<td>14</td>
<td>13.2</td>
<td>5</td>
<td>4.7</td>
<td>19</td>
<td>17.9</td>
</tr>
<tr>
<td>Separated</td>
<td>0</td>
<td>0.0</td>
<td>3</td>
<td>2.8</td>
<td>2</td>
<td>1.9</td>
<td>5</td>
<td>4.7</td>
</tr>
<tr>
<td>Widow</td>
<td>0</td>
<td>0.0</td>
<td>4</td>
<td>3.8</td>
<td>0</td>
<td>0.0</td>
<td>4</td>
<td>3.8</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>0.0</td>
<td>68</td>
<td>64.2</td>
<td>38</td>
<td>35.8</td>
<td>106</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Ф = .233

As indicated in Table 11, across all marital statuses the majority of first responders surveyed, 68 (64.85%) scored in the moderate range. Of those 68 respondents, 22 were never married, 25 married, 14 divorced, 3 separated, and 4 widowed. The remaining 38 (35.8%) respondents, majority married (21) scored in the high in regards to burnout.

As shown in Table 11, the statistical measurement phi (Ф) was employed to test for the strength of the relationship between marital statuses by the computed variable job burnout. There was a weak relationship (Ф=.233) between the two variables. When the chi-squared statistical test for significance was applied, the null hypothesis was accepted.
(p = .868) indicating that there was no statistically significant relationship between the two variables at the .05 level of probability.
CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

The research study was designed to answer six questions concerning the phenomenon of job burnout among first responders who are protected under the Occupational Safety and Health Act of 1970. The participants of the study were composed of first responders in Metropolitan Atlanta, which included police officers, emergency medical services personnel (EMS), crisis line workers, fire fighters, and social workers.

The conclusions and recommendations of the research findings are presented in this chapter. Recommendations are proposed for future discussions for policy makers, police officers, emergency medical services personnel (EMS), crisis line workers, fire fighters, and social workers. Each research question is presented in order to summarize the significant findings of interest.

Research Question 1: Is there job burnout among first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970?

In order to determine if there was job burnout among first responders who are protected under the Occupational Safety and Health Act of 1970, three facets of burnout (level of emotional exhaustion, depersonalization, and personal accomplishment) were
analyzed.

Job burnout was computed based on a calculation of these three facets. In order to determine the true arithmetic mean of the variable, the values (1 thru 3) from the three sub-facets were calculated by dividing the sum of the set of figures by the number of figures.

Of the 106 first responders surveyed, all experience some level of job burnout. The majority (64.2%) of the respondents experienced an elevated level of burnout, which placed them in the moderate range for job burnout. The remaining (35.8) of the respondents scored in the high range, which means that the respondent has a high level of burnout happening, or that they have a high chance of burnout occurring in the near future if it has not hit already. There were no respondent who showed no signs of job burnout when all three components were computed (See Table 5).

Research Question 2: Is there a relationship between first responder perceived awareness of OSHA regulations and job burnout among first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970?

The first responders that indicated that they were not aware of OSHA guidelines surrounding their profession (14.3%) also experienced a high level of job burnout. A majority (20.0 %) of the respondents that indicated that they were not aware of OSHA guidelines surrounding their profession experienced a moderate level of job burnout.

Twenty-one percent (21%) of the respondents that indicated that they were aware of OSHA guidelines surrounding their profession also experienced a high level of job
burnout. A majority (44.8%) of the respondents that indicated that they were aware of OSHA guidelines surrounding their profession also experienced a moderate level of job burnout.

The statistical measurement phi (\(\Phi\)) was employed to test for the strength of the relationship between awareness of the Occupational Safety and Health Administration (OSHA) standards surrounding my profession by the computed variable level of job burnout. There was no relationship (\(\Phi = .00\)) between the two variables. When the chi-squared statistical test for significance was applied, the null hypothesis was accepted (\(p = .319\)) indicating that there was no statistically significant relationship between the two variables at the .05 level of probability (See Table 6).

Research Question 3: Is there a relationship between the years of employment and job burnout among first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970?

Across all years of employment ranges, there was job burnout. The majority (38.6) of first responders who indicated that they have been employed as a first responder for 0-6 years also scored in the moderate range in regards to job burnout. Twenty-six percent (24.5%) of first responders who indicated that they have been employed as a first responder for 0-6 years also scored in the high on the burnout inventory.

The majority (25.1%) of first responders who indicated that they have been employed as a first responder for 7-12 years also scored in the moderate range. Six (5.6%) of first responders who indicated that they have been employed as a first
responder for 7-12 years also scored in the high on the burnout inventory. The majority (10.4%) of first responders who indicated that they have been employed as a first responder for 13 or more years also scored in the moderate range. Six (5.7%) of first responders who indicated that they have been employed as a first responder for 13 or more years also scored in the high on the burnout inventory.

The statistical measurement phi ($\Phi$) was employed to test for the strength of the relationship between years of employment as a first responder by the computed variable job burnout. There was no relationship ($\Phi = .133$) between the two variables. When the chi-squared statistical test for significance was applied, the null hypothesis was accepted ($p = .868$) indicating that there was no statistically significant relationship between the two variables at the .05 level of probability.

Research Question 4: Is there a relationship between the gender of first responder and job burnout among first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970?

Across both genders the majority of first responders survey, 68 (64.2) scored in the moderate range in regards to burnout. Of those respondents 37 (34.9%) were male and 31 (29.2%) were female. The remaining 38 (35.8%) respondents, majority female (20) scored in the high range in regards to burnout.

The statistical measurement phi ($\Phi$) was employed to test for the strength of the relationship between gender by the computed variable level of job burnout. There was a no relationship ($\Phi = .068$) between the two variables. When the chi-squared statistical
test for significance was applied, the null hypothesis was accepted (p = .486) indicating that there was no statistically significant relationship between the two variables at the .05 level of probability.

Research Question 5: Is there a relationship between age and job burnout among first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970?

Across all age groups the majority of first responders survey, 68 (64.2) scored in the moderate range. Of those 68, one was in the 18-24 age range; 24 were in the 25-31 age range; 21 was in the 32-38 age range; 10 were in 39-45 age range; 6 were in 46-52 age range; 5 were in 53-59 age range; and 1 in the 60 and above age range. The remaining 38 (35.8%) respondents scored in the high range with the majority of those being from the age group of 32-38 (20).

The statistical measurement phi (Φ) was employed to test for the strength of the relationship between gender by the computed variable level of job burnout. There was a weak relationship (Φ = .351) between the two variables. When the chi-squared statistical test for significance was applied, the null hypothesis was rejected (p = .043) indicating that there was a statistically significant relationship between the two variables at the .05 level of probability (See Table 10).
Research Question 6: Is there a relationship between marital status and job burnout among first responders in Metropolitan Atlanta who are protected under the Occupational Safety and Health Act of 1970?

Across all marital statuses the majority of first responders surveyed, 68 (64.85%) scored in the moderate range. Of those 68 respondents, 22 were never married, 25 married, 14 divorced, 3 separated, and 4 widowed. The remaining 38 (35.8%) respondents, majority married (21) scored in the high in regards to burnout.

The statistical measurement phi (Φ) was employed to test for the strength of the relationship between marital statuses by the computed variable job burnout. There was a weak relationship (Φ = .233) between the two variables. When the chi-squared statistical test for significance was applied, the null hypothesis was accepted (p = .868) indicating that there was no statistically significant relationship between the two variables at the .05 level of probability.

In sum, first responders in Metropolitan Atlanta experience job burnout. When demographic characteristics were taken in consideration, such as primary role at work, gender, age, marital status, and length of employment as a First Responder, there was no statistically significant relationship established. When awareness of OSHA regulations where taken in consideration, both scored high on the Maslach Burnout Inventory in regards to job burnout, and there was no statistically significant relationship established.
Recommendations

Studies concerning the phenomenon of job burnout are frequently constrained to the causes of job burnout, or if it exists in a certain target population. It is of great importance that community leaders not just examine the causes of job burnout; they should evaluate and implement ways to prevent it. Studies have shown that burned-out first responders can negatively impact the lives of the people they are sworn to serve.

As a result of the findings of this study, the researcher is recommending the following:

1. Educate first responders on the consequences of emotional exhaustion, depersonalization, and personal accomplishment. If first responders recognize the early signs of burnout, they can take the necessary steps to make the appropriate changes so that they do not become burnt out.

2. Agencies that employ first responders in Metropolitan Atlanta should create educational seminars that offer practical strategies that promote self-care. Self-care is an important mechanism for the prevention of burnout.

3. The numerous unions associated with first responders should advocate for better preventative measure in regards to job burnout.

4. Agencies that employ first responders in Metropolitan Atlanta should educate first responders on OSHA guidelines that impact their job.
Appendix A: Survey Questionnaire

*A STUDY OF THE ATTITUDES OF AFRICAN-AMERICAN COLLEGE STUDENTS TOWARD SEEKING AND UTILIZING MENTAL HEALTH TREATMENT IN THE ATLANTA UNIVERSITY CENTER.*

A STUDY OF FIRST RESPONDERS AND BURNOUT AS GOVERNED BY THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 (OSHA) IN METROPOLITAN ATLANTA GEORGIA

Section I: Demographic Information
Place a mark (x) next to the appropriate item. Choose only one answer for each statement.

1) I am a (Please choose your primary role at work):
   1) Crisis Line Worker  2) EMS/EMT  3) Social Worker
   4) Police  5) Fire Fighter  6) Other

2) My Gender is:
   1) Male  2) Female

3) My Age is:
   1) 18-24  2) 25-31  3) 32-38
   4) 39-45  5) 46-52  6) 53-59  7) 60 & Above

4) My Marital Status:
   1) Never Married  2) Married  3) Divorced
   4) Separated  5) Widowed

5) I have been employed as a First Responder for:
   1) 0 - 3 years  2) 4 - 6 years  3) 7 - 9 years
   4) 10 - 12 years  5) 13 - 15 years  6) 16 or more years

6) I am aware of the Occupational Safety and Health Administration (OSHA) standards surrounding my profession:
   1) No  2) 3) Yes
Appendix A: Survey Questionnaire continued ....

Section II: Instrument
The following statements are designed to get your opinion about your current work experience. Write the appropriate number (1 thru 4) in the blank space in front of each statement on the questionnaire. Please respond to all questions.

Recipients- are the people, or clients you serve at work.

1=Strongly Disagree  2=Disagree  3=Agree  4=Strongly Agree

7. ___________ I feel emotional drained from my work.
8. ___________ I feel used up at the end of the workday.
9. ___________ I feel fatigued when I get up in the morning and have to face another day on the job.
10. ___________ I can easily understand how my recipients feel about things.
11. ___________ I feel I treat some recipients as if they were impersonal objects.
12. ___________ Working with people all day is really a strain for me.
13. ___________ I deal very effectively with the problems of my recipients.
14. ___________ I feel burned out from my work.
15. ___________ I feel I'm positively influencing other people's lives through my work.
16. ___________ I've become more callous toward people since I took this job.
17. ___________ I worry that this job is hardening me emotionally.
18. ___________ I feel very energetic.
19. ___________ I feel frustrated by my job.
20. ___________ I feel I'm working too hard on my job.
21. ___________ I don't really worry what happens to some recipients.
22. ___________ Working with people directly puts too much stress on me.
23. ___________ I can easily create a relax atmosphere with my recipients.
24. ___________ I feel exhilarated after working closely with my recipients.
25. ___________ I have accomplished many worthwhile things in this job.
26. ___________ I feel like I'm at the end of my rope.
27. ___________ In my work, I deal with emotional problems very calmly.
28. ___________ I feel recipients blame me for some of their problems.
Appendix A: Survey Questionnaire continued ....

29. _________ OSHA policies and protocols keep me safe.
30. _________ My job keeps me informed of current OSHA's standards.
31. _________ I feel safe performing the day to day duties of my profession.

Thank you so much for all that you do to keep us safe! 😊
Appendix B: SPSS Program

TITLE 'A STUDY OF FIRST RESPONDERS AND BURNOUT'.
SUBTITLE 'Joseph L. Smith Phd Program'.

DATA LIST FIXED/
  ID   1-3
  ROLE 4
  GENDER 5
  AGEGRP 6
  MARITAL 7
  TIMEEMP 8
  OSHA 9
  DRAIN 10
  USED 11
  FATIG 12
  UNDERST 13
  OBJECTS 14
  STRAIN 15
  EFFECT 16
  WKBURN 17
  POSITIV 18
  CALLOUS 19
  HARDEN 20
  ENERGY 21
  FRUSTR 22
  TOOHARD 23
  WORRY 24
  TOOSTRES 25
  RELAX 26
  EXHILAR 27
  ACCOMP 28
  ENDOPE 29
  CALMLY 30
  BLAMEME 31
  MESAFE 32
  MEINFORM 33
  SAFEDUTY 34.

COMPUTE EMOTEXH = (DRAIN+ USED+ FATIG+ STRAIN+ WKBURN+ FRUSTR+ TOOHARD+ TOOSTRES+ ENDOPE).
COMPUTE DEPERSO = (OBJECTS+ CALLOUS+ HARDEN+ WORRY+ BLAMEME).
COMPUTE PERACOMP = (UNDERST+ EFFECT+ POSITIV+ ENERGY+ RELAX+ EXHILAR+ ACCOMP+CALMLY) .
COMPUTE OSHAWARE = (MESAFE+ MEINFORM+ SAFEDUTY) /3.
Appendix B: SPSS Program continued ....

VARIABLE LABELS
ID 'Questionnaire number'
ROLE 'Q1 Your primary role at work'
GENDER 'Q2 My Gender'
AGEGRP 'Q3 My Age group'
MARITAL 'Q4 My marital status is'
TIMEEMP 'Q5 I have been employed as a First Responder for'
OSHA 'Q6 I am aware of the Occupational Safety and Health Administration OS
HA standards surrounding my profession'
DRAIN 'Q7 I feel emotional drained from my work'
USED 'Q8 I feel used up at the end of the workday'
FATIG 'Q9 I feel fatigued when I get up in the morning and have to face another day on the job'
UNDERST 'Q10 I can easily understand how my recipients feel about things'
OBJECTS 'Q11 I feel I treat some recipients as if they were impersonal objects'
STRAIN 'Q12 Working with people all day is really a strain for me'
effect 'Q13 I deal very effectively with the problems of my recipients'
WKBURN 'Q14 I feel burned out from my work'
POSITIV 'Q15 I feel I'm positively influencing other people's lives through my work'
CALLOUS 'Q16 I've become more callous toward people since I took this job'
HARDEN 'Q17 I worry that this job is hardening me emotionally'
ENERGY 'Q18 I feel very energetic'
FRUSTR 'Q19 I feel frustrated by my job'
TOOHARD 'Q20 I feel I'm working too hard on my job'
WORRY 'Q21 I don't really worry what happens to some recipients'
TOOSTRES 'Q22 Working with people directly puts too much stress on me'
RELAX 'Q23 I can easily create a relax atmosphere with my recipients'
EXHILAR 'Q24 I feel exhilarated after working closely with my recipients'
ACCOMP 'Q25 I have accomplished many worthwhile things in this job'
ENDOPE 'Q26 I feel like I'm at the end of my rope'
CALMLY 'Q27 In my work I deal with emotional problems very calmly'
BLAMEME 'Q28 I feel recipients blame me for some of their problems'
MESAFE 'Q29 OSHA policies and protocols keep me safe'
MEINFORM 'Q30 My job keeps me informed of current OSHAs standards'
SAFEDUTY 'Q31 I feel safe performing the day to day duties of my profession'
EMOTEXH 'Level of Emotional Exhaustion - Computed'
DEPERSO 'Level of Depersonalization - Computed'
PERRACOMP 'Level of Personal Accomplishment - Computed'
OSHAWARE 'Perceived OSHA Awareness'.
Appendix B: SPSS Program continued 

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<tr>
<th>Variable</th>
<th>Labels</th>
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<tr>
<td>GENDER</td>
<td>1 'Male' 2 'Female'</td>
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<tr>
<td>AGEGRP</td>
<td>1 '18-24' 2 '25-31' 3 '32-38' 4 '39-45' 5 '46-52' 6 '53-59' 7 '60 &amp; Above'</td>
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<td>1 'Never Married' 2 'Married' 3 'Divorced' 4 'Separated' 5 'Widowed'</td>
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<tr>
<td>TIMEEMP</td>
<td>1 '0-3 years' 2 '4-6 years' 3 '7-9 years' 4 '10-12 years' 5 '13-15 years' 6 '16 or more years'</td>
</tr>
<tr>
<td>OSHA</td>
<td>1 'No' 2 'Yes'</td>
</tr>
<tr>
<td>DRAIN</td>
<td>1 'Strongly Disagree' 2 'Disagree' 3 'Agree' 4 'Strongly Agree'</td>
</tr>
<tr>
<td>USED</td>
<td>1 'Strongly Disagree' 2 'Disagree'</td>
</tr>
</tbody>
</table>
Appendix B: SPSS Program continued ....

3 'Agree'
4 'Strongly Agree'/

FATIG
1 'Strongly Disagree'
2 'Disagree'
3 'Agree'
4 'Strongly Agree'/

UNDERST
1 'Strongly Disagree'
2 'Disagree'
3 'Agree'
4 'Strongly Agree'/

OBJECTS
1 'Strongly Disagree'
2 'Disagree'
3 'Agree'
4 'Strongly Agree'/

STRAIN
1 'Strongly Disagree'
2 'Disagree'
3 'Agree'
4 'Strongly Agree'/

EFFECT
1 'Strongly Disagree'
2 'Disagree'
3 'Agree'
4 'Strongly Agree'/

WKBURN
1 'Strongly Disagree'
2 'Disagree'
3 'Agree'
4 'Strongly Agree'/

POSITIV
1 'Strongly Disagree'
2 'Disagree'
3 'Agree'
4 'Strongly Agree'/

CALLOUS
1 'Strongly Disagree'
2 'Disagree'
3 'Agree'
4 'Strongly Agree'/

HARDEN
Appendix B: SPSS Program continued ....

1 'Strongly Disagree'
2 'Disagree'
3 'Agree'
4 'Strongly Agree'/

ENERGY
1 'Strongly Disagree'
2 'Disagree'
3 'Agree'
4 'Strongly Agree'/

FRUSTR
1 'Strongly Disagree'
2 'Disagree'
3 'Agree'
4 'Strongly Agree'/

TOOHARD
1 'Strongly Disagree'
2 'Disagree'
3 'Agree'
4 'Strongly Agree'/

WORRY
1 'Strongly Disagree'
2 'Disagree'
3 'Agree'
4 'Strongly Agree'/

TOOSTRES
1 'Strongly Disagree'
2 'Disagree'
3 'Agree'
4 'Strongly Agree'/

RELAX
1 'Strongly Disagree'
2 'Disagree'
3 'Agree'
4 'Strongly Agree'/

EXHILAR
1 'Strongly Disagree'
2 'Disagree'
3 'Agree'
4 'Strongly Agree'/

ACCOMP
1 'Strongly Disagree'
2 'Disagree'
3 'Agree'
Appendix B: SPSS Program continued ....

4 'Strongly Agree' /
ENDROPE
1 'Strongly Disagree'
2 'Disagree'
3 'Agree'
4 'Strongly Agree' /
CALMLY
1 'Strongly Disagree'
2 'Disagree'
3 'Agree'
4 'Strongly Agree' /
BLAMEME
1 'Strongly Disagree'
2 'Disagree'
3 'Agree'
4 'Strongly Agree' /
MESAFE
1 'Strongly Disagree'
2 'Disagree'
3 'Agree'
4 'Strongly Agree' /
MEINFORM
1 'Strongly Disagree'
2 'Disagree'
3 'Agree'
4 'Strongly Agree' /
SAFEDUTY
1 'Strongly Disagree'
2 'Disagree'
3 'Agree'
4 'Strongly Agree' /
EMOTEXH
1 'Low Level'
2 'Moderate Level'
3 'High Level'
DEPERSO
1 'Low Level'
2 'Moderate Level'
3 'High Level'
PERACOMP
1 'Low Level'
2 'Moderate Level'
3 'High Level'
Appendix B: SPSS Program continued ....

OSHWARE
   1 'Strongly Disagree'
   2 'Disagree'
   3 'Agree'
   4 'Strongly Agree'.

MISSING VALUES
ROLE GENDER AGEGRP MARITAL TIMEEMP OSHA DRAIN USED FATIG UNDERST OBJECTS STRAIN EFFECT WKBURN POSITIV CALLOUS HARDEN ENERGY FRUSTR TOOHARD WORRY TOOSTRES RELAX EXHILAR ACCOMP ENDOPE CALMLY BLAMEME MESAUF MEINFORM SAFEDUTY(O).

BEGIN DATA
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Appendix B: SPSS Program continued ....

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Appendix B: SPSS Program continued ....

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END DATA.

RECODE OSHAWARE  
(1 THRU 2.99=2) (3 THRU 4.99=3).
Appendix B: SPSS Program continued ....

RECODE EMOTEXH
(18 THRU 36.99=3) (11 THRU 17.99=2)
(1 THRU 10.99=1).

RECODE DEPERSO
(9 THRU 20.99=3) (5 THRU 8.99=2)
(1 THRU 4.99=1).

RECODE PERACOMP
(1 THRU 21.99=3) (22 THRU 25.99=2)
(26 THRU 32.99=1).

FREQUENCIES
/VARIABLES ID ROLE GENDER AGEGRP MARITAL TIMEEMP OSHA DRAIN USED FATIG UNDERST OBJECTS STRAIN EFFECT WKBURN POSITIV CALLOUS HARDEN ENERGY FRUSTR TOOHARD WOOSTRES RELAX EXHILAR ACCOMP ENDOPE CALMLY BLAME ME MESAFE MEINFORM SAFEDUTY EMOTEXH DEPERSO PERACOMP OSHAWARE /
/STATISTICS=DEFAULT.
Mr. Joseph L. Smith Jr. <jlyricsmith@gmail.com>
School of Social Work
Clark Atlanta University
Atlanta, GA 30314

RE: A Study Of First Responders And Burnout As Governed By The Occupational Safety
And Health Act Of 1970 (OSHA) In Metropolitan Atlanta Georgia.

Principal Investigator(s): Joseph L. Smith Jr.
Human Subjects Code Number: HR2013-9-485-1

Dear Mr. Smith:

The Human Subjects Committee of the Institutional Review Board (IRB) has reviewed your
protocol and approved of it as exempt in accordance with 45 CFR 46.101(b)(3).

Your Protocol Extended Approval Code is HR2013-9-485-1/A

This permit will expire on October 5, 2014. Thereafter, continued approval is contingent upon
the annual submission of a renewal form to this office.

The CAU IRB acknowledges your timely completion of the CITI IRB Training in Protection of
Human Subjects — “Social and Behavioral Sciences Track”. Your certification is valid for two
years.

If you have any questions, please contact Dr. Georgianna Bolden at the Office of Sponsored
Programs (404) 880-6979 or Dr. Paul I. Musey, (404) 880-6829.

Sincerely:

Paul I. Musey, Ph.D.
Chair
IRB: Human Subjects Committee

cc. Office of Sponsored Programs, “Dr. Georgianna Bolden” <gbolden@cau.edu>
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