INDICATORS THAT LEAD TO JOB BURNOUT FOR 911 DISPATCHERS

By

Stephanie Ann Underwood

An Applied Research Study Presented to the Faculty of the Department of Public Policy and Administration

CALIFORNIA STATE UNIVERSITY, BAKERSFIELD

In Partial Fulfillment of the Requirements of the Degree

MASTER OF PUBLIC ADMINISTRATION

March 2013
INDICATORS THAT LEAD TO JOB BURNOUT FOR 911 DISPATCHERS

By

Stephanie Ann Underwood

This thesis has been accepted on behalf of the Department of Public Policy and Administration by their supervisory committee:

R. Steven Daniels, Ph.D

John Hultsman, Rec.D.

Date

Date
Table of Contents

Table of Contents ............................................................................................................................. i
List of Tables ..................................................................................................................................... ii
Abstract .......................................................................................................................................... iii
Chapter 1 ......................................................................................................................................... 1
  Introduction ..................................................................................................................................... 1
  Methods and Procedures of the study ............................................................................................ 1
  Importance of the Study .................................................................................................................. 3
  Research Questions ....................................................................................................................... 4
Chapter 2 ......................................................................................................................................... 5
  Literature Review .......................................................................................................................... 5
Chapter 3 ....................................................................................................................................... 21
  Methodology and Design .............................................................................................................. 21
  Sampling/Data Collection ........................................................................................................... 21
  Measurement ............................................................................................................................... 22
    Dependent Variables .................................................................................................................. 22
    Independent Variables ............................................................................................................... 23
  Analysis ....................................................................................................................................... 26
Chapter 4 ....................................................................................................................................... 27
  Results ......................................................................................................................................... 27
  Research Question 1 .................................................................................................................... 32
  Research Question 2 .................................................................................................................... 32
  Research Question 3 .................................................................................................................... 33
  Research Question 5 .................................................................................................................... 33
  Limitations .................................................................................................................................. 35
Chapter 5 ....................................................................................................................................... 37
  Conclusion ................................................................................................................................... 37
  References .................................................................................................................................... 41
Appendix A – IRB Letter .................................................................................................................. 44
Vita.................................................................................................................................................... 46
List of Tables

Table 1. Dependent Variable: Personal burnout scale ................................................................. 34
Table 2. Dependent Variable: Client-Related Burnout ................................................................. 35
Table 3. Dependent Variable: Work-Related Burnout ................................................................. 35
Abstract

The purpose of this research project is to examine the different stressors or indicators of burnout for 911 dispatchers working for both law enforcement organizations as well as fire personnel in the County of Kern. This is a master’s thesis applied research project completed by voluntary participants who utilized the Copenhagen Inventory Burnout (CBI) which identified three types of burnout: personal, work related, and client related burnout. This was then coupled with the Copenhagen Psychosocial Questionnaire (COPSOQ) used to measure other psychosocial properties. Lastly asked were some basic socio-demographic questions used to identify general properties. This study had a sample size of 58 participants. Results of the study indicated that among the three different types of burnout experienced, work related burnout was greatest. Regression analysis findings showed the greatest correlation or greatest indicator of burnout for both work and client related burnout were stressors of emotional demands and a dispatcher’s commitment to the workplace. Somewhat surprising, were results that did not indicate that a specific agency experienced more or less work related or client related burnout than that of other agencies in this study. In other words, there was no distinction in burnout levels across 4 different agencies.
Chapter 1

Introduction

Burnout is a form of psychological exhaustion, which is a complex part of daily life in society. This is experienced by many working in the human services sector who struggle with both workload obstacles and family challenges. Those individuals who work with the public often experience stressors in different capacities than those who work in other professions. McFarlane, Williamson, & Barton (2009) hold that important interactions exist between the day-to-day stressors of workload demand and the personal and private stressors of emergency service workers (p. 313). Nine one one dispatchers experience multiple stressors at extremely high levels, as they deal with life and death emergencies on a daily basis and are expected to remain calm and professional on the other end of the telephone or radio. Nine one one dispatchers are the backbone of any emergency services organization and often sacrifice their own mental, physical, and psychological well-being for the general welfare of the community (McFarlane et. al, 2009, p 312). They play a very important role in keeping emergency services organizations operational due to the very nature of the service they provide in analyzing calls for service and sending help to both nonemergency and emergency situations. As there tends to be a high 911 dispatcher turnover rate, many dispatch centers struggle with keep positions filled. Nine one one dispatchers experience repetitive psychological exhaustion ranging from long hours, shift work, life and death emergencies, operational demands, repetitive work interruptions, disgruntled members of the public, high organizational demand, organizational politics, lack of social support, and conflicts with other staff. All of these contribute to the stressors of their job, which leads to burnout at different levels during a dispatchers’ career.

Methods and Procedures of the study
The purpose of this applied research study is to utilize some reliable and validated measurement in the Copenhagen’s Burnout Inventory (CBI) to assess burnout levels for 911 dispatchers. To date, researchers have conducted studies to examine specific aspects of stressors that lead to job burnout including: personal burnout, work-related burnout, and client-related burnout for many different types of jobs dealing with work in the human service sector. Of all of these human service positions examined for job burnout, researchers have neglected to explore the stressors that 911 dispatchers experience which lead to job burnout. It would be beneficial to take a deeper look at the types of stressors 911 dispatchers experience to help explain why there is such a high turnover and burnout rate for those working in this field. Job related stressors for 911 dispatchers are often repetitive and can lead to poor job performance and eventually resignation from the position as a 911 dispatcher.

The variables of this research include different types of burnout indicators both on and off the job that 911 dispatchers experience. This research will attempt to explore any relationships between burnout levels and time on the job, while also measuring elements of psychosocial properties. These properties include organizational and operational stressors on the job. The study will test these burnout levels surveying participants working for the Bakersfield Police Department 911 dispatch center, the Kern County Fire Department, the Bakersfield City Fire Department, and the Kern County Sheriff’s Office 911 dispatch center, who completed a comprehensive survey questionnaire by numerically rating their personal experiences to burnout and psychosocial properties on an individual level. This study will be using the Copenhagen Burnout Inventory (CBI) measuring variables of personal burnout, work-related burnout, and client-related burnout. Another tool of measure will be the Copenhagen Psychosocial Questionnaire (COPSOQ) to further examine variables of quantitative demands, cognitive
demands, emotional demands, demands for hiding emotions, influences at work, possibilities for
development, meaning of work, commitment to the workplace, predictability, role-conflicts,
quality of leadership, social support, feedback at work, social relations, sense of community,
insecurity at work, job satisfaction, general health, mental health, vitality, behavioral stress,
somatic stress, cognitive stress, and sense of coherence all of which are variables to measure
indicators or levels of burnout for 911 dispatchers. Using these survey tools and psychological
measurements, this research will determine stressors that cause emotional exhaustion/burnout for
911 dispatchers across 4 different dispatch centers.

**Importance of the Study**

This study provides practical value to emergency services agencies/community by
providing some reliable and valid measures that can provide a better understanding of what
causes the phenomenon of 911 dispatcher burnout. Not only is this research important to the
entire emergency services community, it is a very personal hurdle that I have struggled with to
understand how and why on the job many dispatchers have become psychologically exhausted
and burned out. This study can benefit the specific organizations examined: Kern County Fire,
Bakersfield City Fire Department, Bakersfield Police Department and the Kern County Sheriff’s
Office by providing them statistical data that may perhaps help them to better inform new hires
of the stressors encompassed within the position. It can also assist each organization in making
organizational changes to lessen the stressors attached through management, and by helping
organizations find some emotional outs or better counseling services to assist their employees
along their career path to avoid job burnout. This study will benefit other dispatchers like me,
who have often felt they are the only ones’ dealing with job stress/burnout and perhaps, this may
provide them an avenue to feel they are not alone in their emotional exhaustion from such a high
stress job. This study is of public interest because many job seekers looking for places of employment generally try to avoid jobs dealing with high stress and emotional/psychological exhaustion. In addition, this study can be of use to those working in the medical and psychological professions by giving them some reliable data to further explore the impact of stress in the job environment and perhaps the ability to dredge deep into health implications that are associated with repetitive types of mental stress.

**Research Questions**

Based on the survey questionnaire that will be distributed and the questions asked on those surveys, this study will attempt to draw relationships or inferences regarding 911 dispatcher burnout rates and focus on what stressors trigger job burnout for those working in the emergency services industry:

1. Examine what indicators lead to job burnout for 911 dispatchers by analyzing:
   quantitative demands, cognitive demands, emotional demands, or organizational influences.

2. Examine differences in job burnout across 4 different 911 agencies.

3. Assess the impact of age of the 911 dispatcher on their level of burnout.

4. Assess the effect of years of experience on levels of burnout, especially for workers with more than five years of experience.

5. Identify the strongest indicator of burnout for 911 dispatchers.
Chapter 2

Literature Review

Indicators of job burnout are prevalent in many professions as seen in an overwhelming amount of research that has been conducted on job satisfaction reports. Nine one one dispatch stress or burnout levels has yet to be researched in depth. Much of the existing data has studied measures of “on the job stress,” dealing with posttraumatic stress of police officers, measures of work-family stress leading to burnout, organizational and operations stressors for police, fire, and ambulance officers, and outcomes of stressful jobs using coping mechanisms. Many of these studies provide some insight into the measures of stress on the job and coping mechanisms to combat stressful jobs, which provide some good groundwork into examining 911 dispatcher stress leading to job burnout. It is important to review relevant areas that have been researched in the past identifying job burnout as perhaps a factor in explaining work related exhaustion.

Perhaps the most applicable literature review related to this area of study examines burnout rates focusing on three different dimensions. Not only does this research attempt to measure burnout levels, it introduces an inventory survey questionnaire that has been deemed as a reliable and valid level of measure for burnout. This study was titled, “The Copenhagen Burnout Inventory: A new tool for the assessment of burnout,” which developed the Copenhagen Burnout Inventory (CBI). The CBI is used to measure three sub-dimensions of burnout: personal burnout, work-related burnout, and client-related burnout for those who are employed in human service work. “In the CBI the core of burnout is fatigue and exhaustion” (Kristensen, Borritz, Villadsen, & Christensen, 2005, p. 196). Burnout is measured in three different domains or independent variables, the first level is personal burnout which is defined as, “personal burnout is
the degree of physical and psychological fatigue and exhaustion experience by the person” (Kristensen et. al, p.197, 2005). The next is work-related burnout, defined as “the degree of physical and psychological fatigue and exhaustion that is perceived by the person as related to his/her work” (Kristensen et. al, p.197, 2005). The final area of burnout measure is client-related, defined as, “the degree of physical and psychological fatigue and exhaustion that is perceived by the person as related to his/her work with clients” (Kristensen et. al, p. 197, 2005). For this study, the CBI was accompanied by the Copenhagen psychosocial Questionnaire (COPSOQ) which contained psychosocial properties and a core self-evaluation that examined dimensions of quantitative demands, emotional demands, cognitive demands, demands for hiding emotions, influence at work, possibilities for development, meaning of work, commitment to the workplace, quality of leadership, feedback, predictability, role clarity, role conflicts, social support, social relations, sense of community, job satisfaction, and job security (Kristensen et. al, 2005).

The sample for this study was 1024 people working in a variety of capacities of human service work, including psychiatric prison workers, social welfare office workers, wards in a county hospital, psychiatric wards, institutions for disabled, and homecare service workers. Findings of this study showed that while some psychosocial factors such as emotional demands at work and role conflicts predicted all three CBI scale levels, other factors only predicted one or two levels of burnout on the CBI scale; some examples were demands for hiding emotions (client-related burnout), high work pace (work-related burnout), and role clarity (personal and client-related burnout). Kristensen et. al., (2005) stated that “even at job level we were able to demonstrate substantial changes with regard to work-related burnout (but not for the other two scales), which may be an indicator of the substantial organizational changes taking place at the
participating workplaces” (p. 205). Some limitations of this research are that it didn’t specifically measure 911 dispatcher burnout nor does it include depersonalization/cynicism and reduced personal accomplishment measure (Kristensen et. al, 2005).

While the CBI directly measures burnout levels, other researchers have attempted to explain burnout through examining personality traits/dimensions. In another study, researchers examined burnout levels through a meta-analysis comparing burnout among three different personality dimensions using the Maslach Burnout Inventory (MBI). This study included 114 samples of published studies and 7 samples from unpublished doctoral dissertations and conference presentations (Alarcon, Eschleman, & Bowling, 2009). The dependent variables for this research were emotional exhaustion, depersonalization, and personal accomplishment used to measure burnout; meanwhile, the independent variables were 14 different personality traits: general self-esteem, general self-efficacy, locus of control, emotional stability, extraversion, conscientiousness, agreeableness, openness, positive affectivity, negative affectivity, optimism, proactive personality, hardiness, and type A personality traits. Researchers performed a moderator analysis and regression type analyses to measure their variables.

Findings in this study were that employee personality was consistently related to the three dimensions of burnout, specifically associated with personality traits of self-esteem, general self-efficacy, internal locus of control, emotional stability, extraversion, conscientiousness, agreeableness, positive affectivity, negatively affectivity, optimism, proactive personality, and hardiness. Each of these were related to emotional exhaustion, depersonalization, and personal accomplishment (Alarcon et. al, 2009). This study found burnout rates to be strongly associated with employee personality traits on many different dimensions (Alarcon et. al, 2009). A significant limitation of this study was that, because it was a meta-analysis using cross-sectional
designs, it did not allow researchers to test casual relationships for personality and burnout (Alarcon et. al, 2009). This study is applicable to this thesis topic in that it does relate burnout levels of measure to be dependent on personality traits of individual employees.

While personality factors do have some strong relationships to each individual’s feelings of job related burnout, research has attempted to analyze this by looking at how satisfied a person is with his/her job. This next study is applicable in examining burnout because it utilizes factors of job satisfaction to explain burnout amongst employees in human service work. Researchers used the Burnout, Motivation, and Job Satisfaction (PUMA) prospective study design over a five year period, the Copenhagen Burnout Inventory (CBI), and the Copenhagen Psychosocial Questionnaire (COSPOQ) to survey participants in order to obtain data. Using Spearman’s rank correlation scales, results were analyzed and yielded results. A baseline of 1,914 employees from different human services sectors jobs participated in this study. The dependent variables were presented in 3 levels of burnout in the CBI survey instrument and the independent variables were presented in the COSPOQ using 16 scales: two on demands, five on active and developmental work, seven scales on interpersonal relations at work, one scale on job insecurity, and one scale on job satisfaction (Borritz, Rugulies, Bjorner, Villadsen, Mikkelsen, & Kristensen, 2006). Finding of this study indicated that psychosocial work environment scales and work burnout were highest for job satisfaction, quantitative demands, role conflict, and emotional demands, and lowest for job insecurity and cognitive demands (Borritz et. al, 2006). All three burnout scales of the CBI showed good internal consistency and several occupational groups had high scores on either the work-related or the client-related burnout scales, but not on both scales, indicating that a differentiation between these two types of burnout are justified (Borritz et. at, 2006). A limitation of this study was that it did not encompass any human service
workers working in emergency services or 911 dispatchers. Also researchers note that the purpose of PUMA is not to identify persons with very high levels of burnout, but to study determinants and changes in the level of burnout over time and to explore how burnout might impact certain outcomes (Borritz et. al, 2006). As seen in the above study, job satisfaction plays an intricate role as perhaps a determinant for burnout rates. In another attempt to help explain burnout, researchers conducted a study to examine basic need satisfaction (dependent variable) and the relationships between job demands and employees’ burnout, job resources and burnout, and job resources and engagement (independent variables). Researchers in this study focused on the need satisfaction within the work context by examining whether basic need satisfaction can explain the relationship between different types of job characteristics and employee’s well-being (Broeck, Vansteenkiste, De Witte, & Lens, 2008). The sample size for this study was 745 employees in the Dutch-speaking part of Belgium who answered a survey questionnaire. Participants were from different employment backgrounds, including white-collar, professional, blue-collar, superiors, and self-employed; they varied within the sectors of work including the public sector, agricultural sector, socio-cultural sector, health sector, service sector, and educational sector (Broeck et. al, 2008). Researchers utilized the Basic Need Satisfaction at Work Scale to measure needs satisfaction for this study. Several other scales were used to measure independent variables; one focused on 4 different types of job demands: examining workload, emotional demands, physical demands, and work-home interference. They also measured 4 different job resources: task autonomy, supervisory support, skill utilization, and positive feedback. An exhaustion scale was used to measure burnout by the Maslach Burnout Inventory General Survey (BMI-GS). Engagement/vigor was also measured using the Utecht Work Engagement Scale (UWES). This study found that need satisfaction was negatively
associated with exhaustion and positively associated with vigor and satisfaction of the basic psychological needs accounted for the association between job resources and burnout (Broeck et. al, 2008). Based on the findings of this study, researchers suggested that the concept of basic needs might represent an overarching mechanism fuelling both employees’ motivation and energy and, hence, explaining the emergence of both work engagement and burnout (Broeck et. al, 2008). This study is important as it perhaps can explain why some employees feel job burnout more than others, as it relates to having basic satisfaction needs met. Limitations of this research were that it focused only on a limited set of job demands and resources and cannot be generalized to cover all types of job characteristics or, specifically, 911 dispatchers. Though the ability for needs of each employee to be met is important, it is difficult to apply the findings of this research to levels of job burnout.

While meeting employee needs are important, we can see that employee satisfaction can be a determinant of burnout. This next study deals directly with examining how employees are satisfied or dissatisfied with their jobs and what effects’ their level of job satisfaction, by examining how satisfaction could lead to emotional exhaustion or burnout. This study was examining the moderating effects of organizational fulfillment of obligations on the relationship between job demands, control, social support, and emotion exhaustion and job dissatisfaction (Gakovic & Tetrick, 2003). The independent variable in this study was the organizational fulfillment/psychological contract fulfillment and the dependent variables were job demands, control, social support, emotional exhaustion, and job dissatisfaction. When looking into organizational fulfillment, researchers held that there is a type of psychological contract by which employees feel there is a foundation between meeting the needs of each employee and that of the organization, which, if not met, results in a contract breach (Gakovic & Tetrick, 2003).
Therefore, when examining fulfillment of organizational obligations, they are really examining any type of breach in psychological contracts between employer and employee, which lead to a strained or stressed relationship, often leading to emotion exhaustion and job dissatisfaction. This study examined 161 employees from large financial corporations who experienced significant organizational changes including merging, change in computer systems, and physical relocation, all of which occurred without employees having input in these changes (Gakovic & Tetrick, 2003). Participants of the research were asked to fill out a survey questionnaire assessing work-related attitudes and behaviors which aimed to measure emotional exhaustion, job satisfaction, organizational fulfillment of obligations, job demands, control, and social support. Analyses included descriptive statistics and regression analysis. Findings of this research indicated that two dependent variables, emotional exhaustion and job satisfaction were strongly, and negatively related, job demands were positively related to emotional exhaustion and both control and supervisor support were negatively related to emotional exhaustion, and organizational fulfillment of obligations was a significant indicator of job satisfaction (Gakovic & Tetrick, 2003). Limitations of this study were that it examined employees in an organization going through major changes, rather than measuring job satisfaction during day-to-day activities. It also used employees within a financial corporation rather than employees within the human services sector working for emergency services.

Another study examining job satisfaction and stress/strain relationship was conducted by researchers using flight dispatchers. The independent variable for this research was self-efficacy and the dependent variables measure physical strain, psychological strain, and job satisfaction. This study is useful in that, though subjects were flight dispatchers and not 911 dispatchers, many of the stressors surrounding their job tasks are very similar and relevant to those working
as 911 emergency dispatchers. A total of 309 flight dispatchers were surveyed through a questionnaire from two different Chinese airlines and asked to rate their levels on scales measuring self-efficacy, job satisfaction, physical strain, and the role of stressors of role conflict, role ambiguity, and role overload (Liu, Song, & Wang, 2011). Findings of this research indicated that respondents with both high and low levels of self-efficacy felt more psychological strain as the level of perceived role conflict increased along with all three role stressors being positively related to flight dispatchers’ physical strain, psychological strain, and negatively related to job satisfaction (Liu et., al 2011). The limitations of this study were that it only focused on flight dispatchers’ stressors and not 911 dispatchers nor did it incorporate these dispatchers’ feelings of job burnout.

Another study directly examined levels of job burnout across different job positions and satisfaction on the job including: operating staff, management, experts, and workers. This study dealt with many aspects of burnout and other variables. The dependent variable of this research was job burnout which had responses of apathy, emotional exhaustion, withdrawal, and emotion dependence (Darvish, Zare, & Nekoie, 2011). There were 20 different independent variables for this study focused around three major categories of organizational commitment which was defined as belief in organizational values and purposes; job satisfaction, defined as inclination, interest talent or readiness to answer desirably or undesirably towards job environment; job motivations which was defined as a multi-dimensional process that guided the workers’ behavior towards goals (Darvish et. al, 2011). The sample for this study was 1742 workers in the petrochemical industry’s national company. Electronic questionnaires compiled of 81 questions covering influencing factors on burnout were used. Finding of this study explained by variance of related factors in this research showed that burnout can be influenced by others factors and
that increase of the interest and bind of the worker to the organization decreased the level of burnout. Limitations of this study were that its focus group was industry workers and not 911 dispatchers. It also introduced or suggested that job security is a factor that affected burnout and its components (Darvish et al., 2011). Job satisfaction is a substantial factor in how secure one feels in his/her current job and perhaps this feeling of insecurity can explain why burnout is existing so profoundly in the studies.

Another area of research that examines burnout is directly related to operational stressors of the job being performed. Nine one one dispatchers experience elements of operational and organizational stressors on the job. Organizational stress can be defined as stressors that come from management/employer conflicts. Some examples of organizational stress would be following policies and procedures and the imposition of sanctions in the event that duties are not carried out within guidelines. Operational stress deals with on-the-job stressors ranging from traumatic events/critical incidents, shift work, psychological strain, lack of resources, and lack of job training. Brough (2004) conducted a study to empirically compare the experiences of both trauma and organizational stress among three different types of emergency service workers; he also measured organizational and traumatic stress against two psychological outcomes: psychological strain and job satisfaction, and finally correlated a distinction between frequently experienced organizational and operational stressors. The sample size for this study was 631 and utilized self-reporting as means to collect data; the responses were measured using Likert scales while utilizing several other subscales including Police Daily Hassles Scale (PDHS), which measured organizational and operational hassles (Brough, 2004). Findings in this research are relevant to 911 dispatcher burnout because it examined elements of organizational versus traumatic/operational stressors. Brough (2004) found that, in the police model, operational
hassles had both a direct influence on psychological strain and an indirect influence through trauma symptomatology and organizational stressors. These stressors predicted levels of job satisfaction to a far greater extent than trauma symptomatology for all emergency service workers. Perhaps a limitation to this study was that it did not incorporating shift work as an element of operational or organizational stress on the job. Overall, this study contributes to the research of job-related stressors for emergency service/911 dispatchers as it can lead to job burnout by providing empirical evidence that operational stress has not only physical and psychological impacts on police personnel/911 dispatchers within the scope of job duties, but it also has a direct relevance to job satisfaction, which can lead to burnout of the job.

Perhaps the most commonly noted term dealing with operation stressors on the job is critical incident stress or post-traumatic stress. Nine one one dispatchers experience critical or traumatic events daily while performing job duties (e.g., officer involved shooting, a baby not breathing, a subject in cardiac arrest where CPR instructions must be given, injury to officers, homicides, assaults with deadly weapons, suicidal callers, pursuits). These events often lead to negative psychological conditions as a result of continuous exposure to these stressful critical/traumatic incidents, which can further lead to psychological ailments or conditions such as Post Traumatic Stress Disorder. A study specific to this area was conducted by Chopko (2010) who used 183 participants and measured variables using the Posttraumatic Growth Inventory (PSGI), Likert Scale, and Impact of Events Scales, which aimed to measure posttraumatic growth of police officers following traumatic incidents, and the relationship between posttraumatic distress and posttraumatic growth across different populations for police officers. Researchers in this study found that posttraumatic distress as measured by the Impact of Events Scale was significantly a positively correlated with the Posttraumatic Growth Inventory full scale
and all subscales scores in this study (Chopke, 2010). The level of stress caused by critical incidents on the job for police personnel significantly escalated and continued to grow as exposure to these incidents increase throughout an officer’s career. Because stress encompasses such a large portion of police personnel’s job duties and functions, it is worthwhile to examine the factors that cause this and at what point these employees become burnt out from the repeated exposure to such stressors. Not only do organizational and operational duties from the job have a bearing on police personnel, personnel also seek their own personal ways of attempting to cope with these stressors, which can and inevitably lead to job burnout.

Traumatic stress impacts many workers in emergency and nonemergency situations which can lead to job burnout in some instances. In many emergency dispatch jobs, work load is a large contributing factor of stress; how each employee can manage or cope with his/her stress can make one less or more receptive to job burnout. A study was conducted to investigate the buffering role of social support in the relationship of work load to both tension-anxiety and coping for police radio dispatchers. The independent variable of this research was social support, while the dependent variables were workload, tension, and coping. Researchers in this study held that overload is believed to occur when one is faced with too much to do in the time available. They examined both the actual volume of role demands and the employees subjective perceptions of the extent to which such demand were overloading (Kirmeyer & Dougherty, 1988). The second level of measure for this study was coping, or focusing on problem-focused strategies for altering or managing one’s work load. Researchers have focused on the supervisor as a means for social support measuring “functional” and “structural” levels. Research used a sample of 60 dispatchers who had an observer sit along with them and had all communications digitally recorded. Once the observation and recording was finished after each shift, the
dispatcher was asked to fill out a questionnaire measuring appraisal of work load, felt tension and anxiety, and actions taken to cope with overload. This instrument was followed up with an additional questionnaire measuring perceptions of supervisor support (Kirmeyer & Dougherty, 1988). The findings of this study were that police dispatcher who actually received more telephone calls, radio transmissions, and other work inputs perceived themselves as more overloaded and found greater perceived workload was related to more extensive coping for dispatchers with high support from supervisors but had little or no relationship to coping for those with low support (Kirmeyer & Dougherty, 1988). Limitations of this study were that burnout levels were not a factor or level of measure when looking at workload. While peer support is relative and effective at buffering coping strategies for stress, it did not give any indication to burnout levels.

A second study was reviewed that examined findings relative to stress, job burnout, and coping mechanisms. Nine one one dispatchers experience a vast array of different operational stressors which lead employees to use coping mechanisms to curb the lasting effects that job duties create especially when dealing with critical incidents. Some coping mechanisms include avoidance, withdrawal, substance abuse, cynicism, or hypersensitivity to incidents. A study by Burke (1993) used a sample of 828 men and women working in different capacities of jobs within a police department and used self-reporting to measure the dependent variables (job satisfaction, intention to quit, psychosomatic symptoms, and negative feeling states) to the independent variables of demographic characteristics, job stressors, work-family conflict, coping responses, and psychological burnout. Findings of this study measuring predictors of work outcomes found two components of psychological burnout (emotional exhaustion and lack of personal accomplishment) to have significant correlations. According to Burke (1993),
“psychological burnout was a stronger predictor of work attitudes and emotion well-being but inconsistently related to measures of physical health and lifestyles” (p. 177). Also, significant results were found for job burnout and its relationship to variables of job satisfaction, intention to quit, and psychosomatic symptoms. Other findings were that negative feelings and coping responses were shown to be related to measures of emotional well-being and some aspects of physical health and lifestyles (Burke, 1993). One limitation of this research is that it did not encompass measures specific to 911 dispatchers and indicators of stress leading to job burnout. This study added knowledge by showing correlation of job stress and its direct relationships to burnout and introduced means of coping to try and buffer elements of job related stressors.

A third study by Ming, Chiu, & San-Yuan (2009) measured coping mechanisms of stressors that lead to job burnout. This study also attempted to examine the use of employee assistance programs (EAP) to provide a psychological outlet to cope with critical incident stress on the job. Researchers used a sample of 205 employees in Taiwanese high-tech firms, which included the telecommunication industry. The study used self-reporting surveys to obtain data, using a Likert-type scale to measure variables such as stressors, employees’ perception, self-efficacy, and burnout, and computed results using the structural equation modeling (SEM) with the AMOS software (Ming et al., 2009). This study of police personnel found that work load has a high positive relationship to emotional exhaustion, cynicism, and diminished professional efficacy, and stressors were also shown to have strong positive effects on burnout, which supported researcher’s hypothesis (Ming et al., 2009). This study overall demonstrated a direct relationship between the amount of stress that an employee undergoes, and the probability of burnout (Ming et al., 2009). Limitations of this study were that it was a cross-sectional design and not a longitudinal study, which perhaps would have produced more accurate and complete
data from participants. Researchers also noted this study was limited to high-tech industries where the EAP package may be tailored to meet the specific needs of employees in a specific industry (Ming et. al., 2009). While this study did not involve law enforcement employees on the job, it discussed EAP programs and their usefulness in managing stressful jobs in order to possibly prevent burnout.

Researchers have explored some levels of stress and coping strategies for emergency dispatchers; however, there have not been any attempts to correlate burnout levels as a result of work-related stress. This study is relevant in some degree, in that it attempts to identify stressors for 911 dispatchers and identifies some attempts to use coping strategies to assist dispatchers in dealing with work-related trauma. In particular, this study examines the relations between acute disaster stress, coping process, social network supports, and physical and psychological distress for emergency dispatchers (both fire and police) 2.5 months after the Hurricane Andrew disaster. The sample for this study was a total of 68 dispatchers who were both working and off duty for the Hurricane Andrew incident. They were given an Incident Questionnaire, which is designed to illicit social networking aspects dealing with frequencies of contact with friends, relatives, clubs and organizations, and religious services (Jenkins, 1997). Also used was a Ways of Coping Questionnaire measuring 33 coping mechanisms and three additional self-rating scales assessing the effects of stress which included The Impact of Events Scale, a Health Questionnaire, and the Derogatis Brief Symptom Inventory. After analysis was conducted for this study, researchers found that there was no significant difference in the distress measures by age, education level, ethnicity, or marital status and coping scales were unrelated to acute stress and the social network index, and moderately intercorrelated despite having been derived using orthogonal rotation of factors (Jenkins, 1997). Jenkins (1997) held that, “acute stress explained two to four
times as much variance in intrusion and BSI distress as avoidance and psychosomatic symptoms” (p. 212). This study is useful in suggesting that some stressors trigger psychosomatic symptoms and perhaps show some areas where coping mechanisms are more broadly used; however, limitations to this research are that it did not link stressors of traumatic events to job burnout for emergency dispatchers.

While examining work overload and coping strategies for emergency dispatchers, another study was conducted to see if there was a relationship between the effects of externally-imposed interruption and the Type “A” pattern on role overload stress. The sample for this study was 7 dispatchers who were electronically recorded and had a direct observer who remained with them for the duration of the study time to observe all activities. The data were collected for this research using the Jenkins Activity Survey-Form C (JAS) which measured 52 focal points to determine behavior patterns that were determinants of Type personalities which was the independent variable. The dependent variables examined scales measuring interruption and role overload and coping and appraisal by the Likert-type scales. Results on this study showed subjects who faced more frequent interruption and were more extreme Type A more readily appraised their work as overloading and, in turn, took coping action to reduce the duration, scope, and number of work demands (Kirmeyer, 1988). While this study demonstrated the effects of interruption on appraisal and coping, it did not provide an explanation for these effects which is a limitation to this study. It also does not examine the effects of work overloading having any relationship to job burnout for 911 dispatchers.

There is a substantial amount of research that has been conducted dealing with burnout. The existing research does factor in many different variables from operational stressors, job satisfaction, coping strategies, and personality types to explain burnout for many working in a
variety of capacities. Though much of the existing literature and research has touched briefly on burnout, there is no research examining 911 dispatcher burnout levels and factors that contribute to job burnout for these individuals. Many practical measures have been used and tested as reliable in former studies, like the MBI and the CBI; however these instruments have not been used to measure burnout for emergency 911 dispatchers. It is paramount to utilize these instruments of measure on a different population of human service workers in an attempt to benchmark burnout rates for those working as 911 dispatchers. This research on 911 dispatchers can provide a perspective on how critical, stressful, challenging, and difficult the job really is to persons who may inquire into this field of work.
Chapter 3

Methodology and Design

This study will use cross-sectional design, as variables will be measured at the same point in time using casual research. This type of design is relatively fast, and shows prevalence and associations which can be studied. This type of study will allow the researcher to look at numerous things at once, and does not involve manipulating variables. A limitation to this type of research is that is only measures differences between groups, not changes in the groups.

Sampling/Data Collection

This study will use surveys to collect data, and will only survey participants at one particular time. It will involve survey questionnaires that will only sample a subset of 911 dispatchers and attempt to apply the findings to all 911 dispatchers who work in the field. Participants in this study will take a survey questionnaire to elicit responses for analysis. This study will use purposive sampling that includes all willing participants who are current 911 dispatchers at the Kern County Sheriff’s Office, Bakersfield City Fire Department, Kern County Fire Department, and the Bakersfield Police Department. The estimated number of dispatchers for this study will be 90 due to the number of dispatchers for each organization varying. The participants will be identified through personnel listing as currently employed for their particular organization. Participants will be contacted in person at their respective locations (either Bakersfield Police Dispatch center, or the ECC (Emergency Communications Center) for the Bakersfield City and Kern County Fire dispatch center, and the Kern County Sheriff’s dispatch center) and asked to sign a consent form. Participants will be given a pamphlet/packet that will contain an instruction page, information regarding the purpose of this research, a consent form, and the survey itself. They will then be asked to complete a voluntary survey questionnaire with
no identifying information (e.g., name, address, telephone number, social security number) that will include questions on the Copenhagen’s Burnout Inventory (CBI), along with some basic social demographic questions, and the Copenhagen’s Psychosocial Questionnaire (COPSOQ). Kristensen et. al (2005) held that, “in the CBI the core of burnout is fatigue and exhaustion” (p. 196). This research will be quantitative as responses for each survey question are given a numerical scale value. The survey will take between 30-45 minutes for completion and subjects will be asked to complete the survey at some point in time during their shift or during their breaks while working their shift. Once participants have completed their survey questionnaire, they will be asked to anonymously put it into an unmarked sealed manila envelope along with their acknowledged consent form in a labeled drop box that will be left in the employees common break room area within their respective dispatch centers.

**Measurement**

Using descriptive statistics, this study aims to measure the dependent variable of burnout, examining three different types or levels using the CBI. Burnout levels will be measured nominally as a forced score is required on the survey questionnaire:

**Dependent Variables**

1. personal burnout, which is a state of prolonged physical and psychological exhaustion,
2. work-related burnout, which is a state of prolonged physical and psychological exhaustion, which is perceived as related to the person’s work, and
3. client-related burnout, which is a state of prolonged physical and psychological exhaustion, which is perceived as related to the person’s work with clients (Kristensen et. al, 2005). The first section measuring personal burnout is constructed by questions dealing with the individual level of physical and emotional exhaustion. The second level of burnout focuses on work-related
burnout constructed from feelings of frustration on the job and burnout caused by the demands of the job. The third level of client-related burnout is constructed by questions eliciting feeling of burnout due to the interaction with the public while performing job duties. These three levels of burnout are based on a 5 point scale, which require a numerical answer of 100 always, 75 often, 50 sometimes, 25 seldom, and 0 never/hardly ever to measure their level of burnout. The levels of burnout will be measured with several other independent variables that may affect burnout levels.

*Independent Variables*

The level of measure for the independent variables will be measured nominally as a forced scoring is used on the survey questionnaire. The independent variables used were taken from the COPSOQ and are as follows:

1. quantitative demands - constructed with questions dealing with work overload that is used to measure levels of quantitative demands.
2. cognitive demands - constructed with questions dealing with multitasking on the job and making difficult decision that is used to measure levels of cognitive demands.
3. emotional demands - constructed with questions regarding emotionally disturbing and emotionally demanding type of work.
4. demands for hiding emotions - constructed with questions asking if your work requires you to not state your opinion.
5. role conflict - constructed with questions dealing with contradictory demands and having to do things different than others on the job.
6. social support - constructed with questions asking if employees get help from other colleagues.
7. social relations - constructed with questions asking if employees are able to talk to other colleagues or if they are isolated while working.

8. sense of community - constructed with questions dealing with employees feeling a part of the workplace and if there is good cooperation between colleagues at work.

9. job satisfaction - constructed with questions asking if employees like their physical working conditions and if they like the way their abilities are used.

10. job insecurity - constructed with questions dealing with employees’ fear of being unemployed and if new technology makes them feel redundant.

11. predictability - constructed with questions dealing with employees feeling informed about important decisions made, changes, or plans for the future.

12. quality of leadership - constructed with questions asking if employees feel they have good development opportunities from supervisors and if supervisors give high propriety to employees job satisfaction.

13. feedback - constructed with questions dealing with supervisors speaking with employees about their job performance and if colleagues talk with them about job performance.

14. role clarity - constructed by questions dealing with employees’ feeling of knowing how much to say at work.

15. influences at work - constructed with questions dealing with employees having any influence on the amount of work assigned to them and if employees have any influence on what they do at work.

16. possibilities for development - constructed with questions concerning if one’s work requires him/her to take initiative and if employees have the possibility to learn new things through their job.
17. meaning of work - constructed with questions asking if employees feel their work is meaningful and if they feel the work they do is important.

18. commitment to the workplace - constructed with questions asking if employees enjoy speaking to others about their job and if employees feel their place of work is of great personal importance to them.

19. general health - constructed with questions asking if employees feels they are in good health and if they expect their health to get worse.

20. mental health - constructed with questions asking if employees feel downhearted and blue or if they are generally happy.

21. behavioral stress - constructed with questions dealing with employees feeling like they lack initiative and if they feel they have no time to relax or enjoy themselves.

22. somatic stress - constructed with questions dealing with their health as a result of stressful situations, asking if employees feel dizzy, if they have stomach problems, and if they have muscle tension.

23. cognitive stress - constructed with questions asking if employees have trouble concentrating and if they have difficulty making decisions.

24. sense of coherence - constructed with questions asking if employees feel they have clear direction and purpose in life and if they feel their daily life is meaningful.

25. degree of freedom at work - constructed with questions dealing with employees’ ability to leave their work to talk to a colleague and if employees are able to take a holiday off.

26. sensorial demands - constructed with questions asking if employees’ job demands a great deal of concentration and if the work requires a high level of precision.
27. demand for responsibility at work - constructed with questions asking employees if mistakes at their job could injure people and if their work affects the well-being of others.

28. problem focused coping - constructed with question asking if the employee does anything to solve problems and if the employee speaks to colleagues about their feelings.

29. selective coping - constructed with questions asking employees if they concentrate on aspects of their work that have no problems and if employees try to see the funny side of situations when problems arise at work.

30. resigning coping - constructed with questions asking what employees do when problems arise at work, either accept the situations or carry on as if there is no problem.

These independent variables have been taken directly from the Copenhagen Psychosocial Questionnaire (Kristensen et. al, 2005). Some additional indicators of burnout might be found in other basic sociodemographic responses exploring age range, number of years on the job, and health of the participant.

**Analysis**

Response frequency analysis will be conducted to measure score ranges for responses to the three different types of burnouts: personal burnout, work-related burnout, and client-related burnout. This study will use regression analysis to attempt to find any correlations between these dependent variables (types and levels of burnout) and the independent variables and socio-demographic questions. By using the regression coefficients, the data for this analysis will be able to show how much the dependent variable will respond to a change in one of the independent variables holding all other independent variables constant.
Chapter 4

Results

A total of 83 surveys were distributed to the Bakersfield Police Department, the Kern County Sheriff’s Office, Bakersfield Fire Department, and the Kern County Fire Department with a return number of participants responding totaling 58 (a response rate of 70%). Upon receiving the completed surveys and participation waivers, an analysis was then conducted to elicit findings for this research project.

A standard multiple regression analysis was run on each section of dependent and independent variables to determine the reliability of the questions asked. Due to the large number of independent variables this was the best analysis to run to predict effects on the dependent variables of burnout. On all of the dependent variables measuring “personal burnout,” “work-related burnout,” and “client-related burnout” the Cronbach’s alpha, which measures the coefficients of internal consistency, was of accurate ranges showing reliability of the psychometric test questions asked. The Cronbach’s alpha for testing of “personal burnout” was .885 using all question on the survey. For “work–related burnout” the Cronbach’s alpha was .914, after removing a question that didn’t fit consistently with other questions, the question removed was “Do you have enough energy for family and friends during leisure times?” For the last dependent variable measuring “client-related burnout,” the Cronbach’s alpha was .869 and all questions were used.

When measuring reliabilities for the independent variables, some of the testing required some questions to be eliminated from the data set, as they lowered or brought down the Cronbach’s alpha score. This meant that the specific questions eliminated were not being consistently asked within each subsection of independent variables. The independent variable
“quantitative demands” had a Cronbach’s alpha of .725 after eliminating the question, “How often can you take it easy and still do your work?” The independent variable of “emotional demands” had a Cronbach’s alpha of .848 using all questions. The independent variable of “demands for hiding emotions” had a score of .844 using both questions in this category. For “sensorial demands,” one question was removed that asked “Does your work require that you have to control your movements (e.g. your arms and hands) consciously?” which score was .712. The Cronbach’s alpha for “demand for responsibility at work” was .771, after removing the question “Could it cause financial losses if you make mistakes in your work?” The independent variable of “influence at work” had a score of .404 using all questions in the data set and for “possibilities for development” using all questions had a Cronbach’s alpha score of .664. For the “degree of freedom at work” variable after removing the question, “If you have some private business, is it possible for you to leave your place of work for half an hour without special permission?” scored .658. The “Meaning of work” variable using all had a score of .725 along with “commitment to the workplace” using all data questions were .681 for the Cronbach’s alpha. The “predictability” variable had a score of .572 using both questions. “Role clarity” had an alpha of .723 after removing the question “Do you know exactly how much say you have at work?” The variables “role-conflicts and “quality of leadership” both used all questions within the data set. The “Role-conflict” score was .893 and for “quality of leadership” .915. For “social support” the Cronbach’s alpha was .555 using both questions and for “feedback at work” using both questions in the data set the Cronbach’s alpha was .487. When trying to run reliabilities on the “social relations” the questions were negatively asked, therefore displaying a negative average covariance among the two items, so the scales had to be reversed. After changes made to this data set the Cronbach’s alpha was .536 for both questions used. For “sense
of community” all questions were used with a score of .793 and for “insecurity at work” the alpha score using all questions was .518. For “job satisfaction” the Cronbach’s alpha was .716 after removing the questions, “the physical working conditions?” On the “general health” variable, two of the questions were also negatively asked; therefore the scales had to be reversed for two of the questions “I seem to get sick a little easier than other people” and “I expect my health to get worse.” After changes and adjustments were made to the scale for scoring all questions were used and the alpha score was .819. Also, 3 questions on the “mental health” variable needed to have the scales changed to reflect positive rather than negative which resulted in using all of the questions within the subsection with a Cronbach’s alpha score of .811. The “vitality” section also went through some adjustments to the scales for negatively covariance questions after adjustments made to this section all questions were used with a score of .919. The “behavioral health” section used all the questions with a score of .776, for “somatic stress” all questions used with a score of .742, and for “cognitive stress” all questions were used with a score of .932. “Sense of coherence” had five questions for which the scale needed to be reversed and two questions had to be eliminated. The first was “often things happen around me that I do not understand” and the other, “I know what I ought to do in my life, but I do not believe that I am able to do it.” After these questions were removed the Cronbach’s alpha score was .797. The last three independent variables used all questions, for “problem-focused coping” the score was .787, for “selective coping” the score was .608, and for “resigning coping” .735.

When examining the mean average for the three different dependent variables, work-related burnout had the highest mean score of 55.6034, showing that out of the three different types of burnout, work-related was greater than personal burnout and client-related burnout. Client-related burnout had a mean average of 46.7672, while personal burnout had a mean
average of 50.2155. Client-related burnout was the lowest form of burnout experienced by participants, while personal burnout ranked second.

Using stepwise regression analysis, the output is able to account for how much of the variance of burnout is accounted for by the joint predictive power of knowing the significance .05 (or less) for the independent variables. If the significance is less than .05 the relationships is then considered significant if it is between .05 and .10; if it does not fall into this range, it is not considered to be a significant relationship. This analysis not only provides a predictive value but it is able to predict how well the independent variable predicts the dependent variable, while controlling for each independent variable at the same time. The findings for this analysis did account for significance in relationship; however on a several occasion negative relationships were found for different independent variables when measured with the different types of burnout.

In data table 1 below, the findings for personal burnout using stepwise regression analysis show significant relationships with some being positive and some negative, when measuring on a 100 percent scale for the unstandardized coefficients. Personal burnout accounted for 59% of the variation out of the 58 cases. Analysis found that Sensorial Demands, Quality of Leadership and General Health all were significant factors showing a negative relationship with personal burnout. Therefore, as sensorial demands decreased, the quality of leadership decreased, and as the participants’ general health decreased, they experience a greater level of burnout. Other significant variables that were both positive in relationship and increased the level of personal burnout were feedback and work, behavioral stress, cognitive stress, and the total of years as a dispatcher. This is best explained as dispatchers who experience higher levels of behavioral stress and cognitive stress have a higher level of burnout. However, dispatchers who received
more feedback at work experience more personal burnout, which is puzzling as one would expect that the less feedback at work one received would lead to greater personal burnout. The last row of data from this table deals with the hypothesized research question measuring the effects of personal burnout on the number of years on the job, showing a significant relationship. Findings show that the longer the dispatcher has been employed, the greater personal burnout her/she experiences, which accounts for 30% of the variance.

Data table 2 examines client-related burnout which explains 70% of the variance for 58 total cases. This table also has both positive and negative relationships which are significant. The variables commitment to the workplace, vitality, and social support all are negatively related to client-related burnout. This means that the less vitality a dispatcher has, the less committed he/she is to the workplace, and the lack of social support all increase a dispatcher’s client-related burnout levels. The variables showing a positive relationship are emotional demands, quantitative demands, demand for responsibility, and selective coping. The findings are best summarized that those who have increased emotional demands, increased quantitative demands, increase in demands for responsibility, and those who have increase in selective coping experience higher levels of client-related burnout. The somewhat confusing result from this table is the selective coping, which seems that it should have the reversed effect on burnout than what the data displayed.

The final and most crucial finding for understanding 911 dispatcher burnout is best shown in table 3, which explains 67% of the variance. The findings for work-related burnout show a negative relationship but only for the variable of commitment to the workplace. This variable has a negative 33% of the variance for work-related burnout, which again was unexpected in that, one would again expect higher burnout when dispatchers are more committed
to the workplace. All the other variables in work-related burnout are positive in having a significant relationship. The variables are emotional demands, behavioral demands, cognitive stress, and total of years as a dispatcher. This suggests that the higher emotional demands, higher behavioral stress, higher cognitive stress, and increased number of years as a dispatcher all increase the level of work-related burnout

Research Question 1

To examine the first research question that asks, “which indicators lead to job burnout when analyzing: quantitative demands, cognitive demands, emotional emotions, or organizational influences?” it was hypothesized that one or more of these specific independent variables would have accounted for the greatest relationship to job burnout than all other independent variables when held constant. This question requires an examination of two of the dependent variables measuring job burnout, which are “client-related burnout” and “work-related burnout.” Client-related burnout found “emotional demands” to be directly correlated with causing burnout with a correlation coefficient score of .414 which was the strongest indicator. The only other variable in this section was “quantitative demands” which had a correlation coefficient score of .208. When looking at work-related burnout with the independent variables, the only one that had any correlation in this section was “emotional demands” which had a score of .401 which was the highest indicator of work-related burnout.

Research Question 2

The second research question seeks to explain any differences in job burnout across four different 911 agencies examining dispatchers at the Bakersfield Police Department, Kern County Sheriff’s Office, Bakersfield Fire Department, and Kern County Fire Department. It was hypothesized that perhaps the law enforcement 911 dispatcher experienced more job burnout
than that of the fire department dispatchers. However, the results for this analysis showed no difference in job burnout across the four different departments, as there was no correlation significant to identify any agency that experience more or less burnout than any other.

**Research Question 3**

The third area of research was to assess the impact of age of the 911 dispatchers to their level of burnout. It was hypothesized that dispatchers who are above the age of 34 years would experience higher or greater levels of job burnout, than those of a younger generation. Research determined that age had no significant effect on the level of burnout a dispatcher experienced. The average mean age of dispatchers across all four agencies out of the total 58 participants was 37 years old; however the age yielded no relationship to the dispatcher’s job burnout.

**Research Question 4**

The fourth area to assess in this research project was to examine the dispatchers’ years of service and their level of job burnout. It was hypothesized that the longer a dispatcher has been working, the higher level of job burnout one would experience. In other words, dispatchers who had been on the job much longer than newly employed dispatchers would be far more burned out than their counterparts. The total years as a dispatcher variable had no significance or relationship to client-related burnout; however a relationship was shown between total years employed as a dispatcher to work-related burnout. The correlation coefficient showed .281 when analyzing this variable on work-related burnout measures.

**Research Question 5**

The final research question seeks to identify the strongest indicator of job burnout for 911 dispatchers. It is hypothesized that emotional demands would be the strongest indicator of job burnout as 911 dispatchers deal with at times very tragic and emotional involved situations. After
examining the dependent variables of work related burnout and job related burnout, both of these scales had the highest correlation relationship to emotional demands scales, which does prove the hypothesis to be correct. Dispatchers among these agencies all felt that emotional demands of the job were directly correlated to job burnout.

**Table 1. Dependent Variable: Personal burnout scale**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>68.347</td>
<td>17.133</td>
<td>3.989</td>
<td>.000</td>
</tr>
<tr>
<td>Sensorial Demands</td>
<td>-.274</td>
<td>.160</td>
<td>-.158</td>
<td>1.716</td>
</tr>
<tr>
<td>Quality of Leadership</td>
<td>-.166</td>
<td>.081</td>
<td>-.225</td>
<td>2.050</td>
</tr>
<tr>
<td>Feedback at Work</td>
<td>.221</td>
<td>.097</td>
<td>.251</td>
<td>2.274</td>
</tr>
<tr>
<td>General Health</td>
<td>-.270</td>
<td>.093</td>
<td>-.300</td>
<td>2.909</td>
</tr>
<tr>
<td>Behavioural Stress</td>
<td>.270</td>
<td>.112</td>
<td>.300</td>
<td>2.416</td>
</tr>
<tr>
<td>Cognitive Stress</td>
<td>.301</td>
<td>.096</td>
<td>.348</td>
<td>3.130</td>
</tr>
<tr>
<td>Total years employed as a dispatcher</td>
<td>.296</td>
<td>.117</td>
<td>.242</td>
<td>2.536</td>
</tr>
<tr>
<td>Number of Cases</td>
<td>58</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R-squared</td>
<td>.590</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 2. Dependent Variable: Client-Related Burnout

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients B</th>
<th>Std Error</th>
<th>Standardized Coefficients Beta</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>29.257</td>
<td>14.029</td>
<td></td>
<td>2.085</td>
<td>.042</td>
</tr>
<tr>
<td>Emotional Demands Scale</td>
<td>.414</td>
<td>.090</td>
<td>.425</td>
<td>4.608</td>
<td>.000</td>
</tr>
<tr>
<td>Commitment to the Workplace</td>
<td>-.395</td>
<td>.083</td>
<td>-.406</td>
<td>-4.784</td>
<td>.000</td>
</tr>
<tr>
<td>Quantitative Demand Scale</td>
<td>.208</td>
<td>.090</td>
<td>.201</td>
<td>2.301</td>
<td>.026</td>
</tr>
<tr>
<td>Demand for Responsibility at Work</td>
<td>.336</td>
<td>.122</td>
<td>.227</td>
<td>2.742</td>
<td>.008</td>
</tr>
<tr>
<td>Vitality</td>
<td>-.445</td>
<td>.170</td>
<td>-.214</td>
<td>-2.625</td>
<td>.011</td>
</tr>
<tr>
<td>Selective Coping</td>
<td>.262</td>
<td>.095</td>
<td>.241</td>
<td>2.765</td>
<td>.008</td>
</tr>
<tr>
<td>Social Support</td>
<td>-.228</td>
<td>.104</td>
<td>-.205</td>
<td>-2.193</td>
<td>.033</td>
</tr>
<tr>
<td>Number of Cases</td>
<td>58</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R-Squared</td>
<td>.700</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3. Dependent Variable: Work-Related Burnout

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients B</th>
<th>Std Error</th>
<th>Standardized Coefficients Beta</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>25.282</td>
<td>8.159</td>
<td></td>
<td>3.099</td>
<td>.003</td>
</tr>
<tr>
<td>Emotional Demands Scale</td>
<td>.401</td>
<td>.103</td>
<td>.372</td>
<td>3.906</td>
<td>.000</td>
</tr>
<tr>
<td>Commitment to the Workplace</td>
<td>-.331</td>
<td>.090</td>
<td>-.307</td>
<td>-3.674</td>
<td>.001</td>
</tr>
<tr>
<td>Behavioural Stress</td>
<td>.250</td>
<td>.114</td>
<td>.228</td>
<td>2.189</td>
<td>.033</td>
</tr>
<tr>
<td>Cognitive Stress</td>
<td>.287</td>
<td>.111</td>
<td>.271</td>
<td>2.593</td>
<td>.012</td>
</tr>
<tr>
<td>Total years employed as a dispatcher</td>
<td>.281</td>
<td>.121</td>
<td>.188</td>
<td>2.331</td>
<td>.024</td>
</tr>
<tr>
<td>Number of Cases</td>
<td>58</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R-Squared</td>
<td>.670</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Limitations

While this test does show correlations between burnout and other psychosocial and sociodemographic properties, it is not able to establish causation. Another limitation to this
research is that the sample size is relatively small. This study examines only 911 dispatchers from the Kern County Sheriff’s Department, Bakersfield City and Kern County Fire dispatchers, and the Bakersfield Police Department, who are the first answering points for 911 calls generally speaking; however the California Highway Patrol and Hall ambulance dispatchers were excluded from this study. Perhaps future researchers may wish to incorporate these other agencies in order to have a larger sample size.
Chapter 5

Conclusion

This research project aimed to identify job burnout for 911 dispatchers amongst fire and law enforcement 911 answering points. Its purpose was to address and identify different indicators or factors that contribute to burnout for 911 dispatchers. This study incorporated 3 different burnout measures of personal burnout, work-related burnout, and client-related burnout. This study then identified over 35 different independent variables which were tested to see if there was a relationship or correlation amongst these different variables. It was discovered that work-related burnout was the highest level of burnout when compared to personal and client-related burnout. Researchers Gianfranco Tomei, Cherubini, Ciarrocca, Biondi, Rosati, Tarsitani, Capozzella, Monti, & Francesco Tomei (2006), discovered that work-related stress is caused by excessive demands, which cause individuals to give prompt cognitive and behavioral answers; however, when these demands are greater than the subjects’ ability to fulfill them, non-physiological reactions may follow, including emotional, neuro-vegetative, psychological and behavioral changes (p. 240). Perhaps due to the high multi-tasking demands that dispatchers experience this may cause work-related stress as they struggle with time management and the feeling of being overwhelmed with the amount of simultaneous demands required of them at a given time.

The indicators or factors contributing to work-related burnout were: emotional demands being the most significant, commitment to the workplace, behavioral stress, cognitive stress, and total years employed as a dispatcher. The data for the section dealing with commitment to the workplace had a negative correlation, resulting in those who had a poor commitment to the
workplace experiencing a higher level of work-related burnout. Valle & Witt (2001) contend that researchers have hypothesized that workers perceiving high levels of organizational politics are dissatisfied with their jobs, which perhaps has some effect on their negative commitment to the workplace (p. 381). Also found in this data was that both behavioral and cognitive stress had strong relationships to work related burnout.

For client-related burnout the contributing factors were: emotional demands again being the most significant, commitment to the workplace, quantitative demands, demands for responsibility at work, vitality, selective coping, and social support. Surprisingly, client-related and work-related burnout shared the same two independent variables which caused burnout: emotional demands and commitment to the workplace. It is theorized that perhaps those who had a negative commitment to their workplace experiences an effort-reward imbalance (ERI), which is founded upon the idea that stress arises when incongruence exists between the effort invested in a job and the rewards that are visible as a result (Willis, O’Connor, & Smith, 2008). Both of these were very significant in their relationship to these different burnout variables. Also examining the commitment to the workplace variable, it was also negatively related showing that the less commitment to the workplace each dispatcher experienced, the more burned out effects were felt. In addition to negative commitment relationship, vitality and social support were negatively related, which concludes the less social support one experienced, along with the less vitality one felt, the higher the level of client-related burnout experienced.

Upon researching personal burnout, there were seven different indicators which showed a relationship: sensorial demands, quality of leadership, feedback at work, general health, behavioral stress, cognitive stress, and total number of years as a dispatcher. Thus, personal burnout touched on several job related burnout factors; however it was not the main source of
burnout in the other job-related burnout factors. One can conclude that job-related stress and burnout can carry over into personal burnout based on the results from the data analysis. Another factor in personal burnout that was interesting was that the quality of leadership showed negative correlation to burnout, suggesting that the poorer the quality of leadership, the more personal burnouts were felt among participants. Another conclusion drawn from this analysis was that the poorer one’s general health, the more personal burnout one experienced.

In general, this analysis would lead researchers to conclude that 911 dispatchers of different capacities, rather police or fire, experience the same types of work-related and client-related stress. Another generalization that can be inferred based on the results of this study is that age makes no difference on the level of burnout a dispatcher experiences. The number of years on the job, however, has a direct relationship to both personal and work-related burnout. The longer a dispatcher works as a 911 operator the more likely he/she is to experience greater levels of burnout.

In summary, the findings of this research are helpful for 911 organizations to identify which indicators cause burnout for 911 dispatchers. This might provide administrators in key positions a basis to make organizational changes within departments to better prepare new dispatchers of the stressors associated with dealing with the public and work-related burnout for 911 dispatch employees. This not only can provide administrative benefits, but it can help with recruiting the appropriate candidate for this type of job by screening new potential employees. This research might also assist the human resources office in assess a new candidate’s ability to cope with stress prior to offering a position as a 911 dispatcher. It may also assist in providing better recruitment orientations or seminars by identify stressors associated with 911 dispatcher positions and by advising potential hires of what they can expect to perhaps be stressors on the
job. It can help in providing emotional or psychological outlets, as emotional demands were seen to have a significant relationship to both client-related and work-related burnout. Some of these outlets might include psychological support groups or counseling services that may perhaps help dispatchers alleviate their work-related stress in a positive fashion.

Unfortunately much of the public with whom 911 dispatchers work on a daily basis do not understand the demands and different types of stressors associated with working in this field. A better educated public would be paramount in having an understanding of the rigors associated with being a 911 dispatcher. This, perhaps, can bridge the gap between the dispatcher and public and help to make a more harmonious work environment for the dispatcher and public. It may help the public in understanding of responses or statements made over the telephone, types of demands dispatchers experience, and emotional sanctions the job plays on each dispatcher. This in turn can perhaps lower the burnout rates for dispatchers working with clients. Better educated police officers, fire personnel, and ambulance crews might also help to reduce the stressors associated with coworker conflicts, which was one of the independent variables in this research project. Dispatchers are critical to emergency services response. Better teamwork between coworkers and the public can significantly reduce any added stressors already experience by these employees who answer the publics’ calls for help 24 hours a day seven days a week.
References


Appendix A – IRB Letter
Institutional Review Board for Human Subjects Research

Date: 12 November 2012

To: Stephanie Underwood, PPA Student

From: Steve Suter, University Research Ethics Review Coordinator

cc: Paul Newberry, IRB Chair
    R. Steven Daniels, Public Policy and Administration

Subject: Authorization for Protocol 12-104

I am pleased to inform you that your protocol, "Indicators of Job Burnout for 911 Dispatchers," has been approved following expedited review. Authorization is based on the original protocol received October 1st, 2012 and your clarifications and revisions in response to reviewer feedback completed on November 9th, 2012.

This authorization is strictly limited to the specific activities that have been authorized by the IRB. In conducting this research, the investigator must carefully review the final, authorized, version of the protocol to ensure that the research is conducted as authorized by the IRB. If you want to modify these activities, notify the IRB in advance so proposed changes can be reviewed. If you have any questions, or if there are any unanticipated problems or adverse reactions, please contact me immediately.

Note: The following personnel [only] are authorized to interact with subjects in obtaining informed consent or in collection of data.

Human Subjects Protection Training Certified:
Stephanie Underwood [9-10-12] & R. Steven Daniels [9-30-05]

Any signed consent documents must be retained for at least three years to enable research compliance monitoring and in case of concerns by research participants. Consent forms may be stored longer at the discretion of the principal investigator [PI]. The PI is responsible for retaining consent forms. If the PI is a student, the faculty supervisor is responsible for the consent forms. The consent forms must be stored so that only the authorized investigators or representatives of the IRB have access. At the end of the retention period the consent forms must be destroyed [not re-cycled or thrown away]. Please destroy audio tapes after scoring.

This authorization will be valid until the end of October 2013.

Steve Suter, University Research Ethics Review Coordinator
Vita

Stephanie Ann Underwood was born in Bakersfield, California on January 10\textsuperscript{th}, 1983. After completing her high school education at West High School, Bakersfield, California in 2001, she went on to receive her Associates degree at Bakersfield College in Administration of Justice. She then transferred to California State University, Bakersfield where she completed her Bachelor of Arts in Criminal Justice with a Minor in Sociology. Upon completion, she immediately began working towards her Master of Public Administration degree where she completed her coursework in 2013, while working as a full time Bakersfield Police Dispatcher, at the Bakersfield Police Department.