An Examination of Perceived Stress Levels and Coping Styles Among Rural Law Enforcement Officers

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The University of Southern Mississippi

AN EXAMINATION OF PERCEIVED STRESS LEVELS AND COPING STYLES
AMONG RURAL LAW ENFORCEMENT OFFICERS

by

Marcos Luis Misis

Abstract of a Dissertation
Submitted to the Graduate School
of The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy
ABSTRACT

AN EXAMINATION OF PERCEIVED STRESS LEVELS AND COPING STYLES AMONG RURAL LAW ENFORCEMENT OFFICERS

by Marcos Luis Misis

May 2012

Policing is a very stressful job. Despite the extensive body of research on police stress, the majority of studies have focused solely on officers within urban police departments. Research on stress within rural law enforcement departments is virtually non-existent even though the majority of police agencies in America serve towns and areas under 50,000 residents.

This study had four main goals: (1) to examine how work-related stress affects the levels of perceived stress, anxiety, and depression for rural law enforcement officers; (2) to explore the specific stressors affecting rural law enforcement officers; (3) to investigate how rural law enforcement officers cope with work-related stress; and, (4) to study how individual officers’ demographic characteristics affect their levels of perceived stress, as well as their coping styles.

An adaptation of the Law Enforcement Work-Assessment (LEWA) Survey, developed by Dr. Yolanda Scott in 2002, was selected for use in this research study. An initial random sample of 27 municipalities and 27 counties with less than 50,000 residents was selected. The final sample consisted of 21 police agencies and 320 respondents.

The results from these analyses indicated that rural law enforcement officers in the sample reported that policing is a moderately high stressful occupation. Factor
analysis identified six related-stress factors: work-itself stressors, organizational stressors, community stressors, interpersonal-contact stressors, levels of anxiety and depression, social coping, and isolative coping. The first regression model indicated that work-itself stressors, organizational stressors, work-itself stressors, levels of anxiety and depression, and race were significant predictors of the dependent variable, levels of perceived stress. The second regression model indicated that the demographic years in law enforcement, race, and gender were predictors of the dependent variable, social coping. The third regression indicated that organizational stressors, inter-personal contact stressors, and levels of anxiety and depression were significant predictors of the dependent variable, isolative coping. Finally, results from the qualitative analysis confirmed that stressors related to the organization were the primary source of stress for rural law enforcement officers in the sample.
The University of Southern Mississippi

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May 2012
DEDICATION

I have had many obstacles and tribulations to get to this point in my personal and professional life. My past experiences and health have tested me every day and have provided me with a great source of stress and instability. I want to dedicate this dissertation to my parents, Jose Luis and Margarita, for loving, supporting, and pushing me through those days of incertitude and apprehension. I am very grateful and lucky for having such incredible parents. I also want to dedicate this dissertation to my sister, Laura, for giving me her unconditional love, support, and positive outlook about life. My adopted brother Joe has been crucial in my academic success in the doctoral program. He has witnessed my struggles over the last four years, and patiently has given me the sense of family that I so much needed. In these moments of self-reflection, I cannot stop thinking about my deceased grandmother, Paula, for teaching me courage and determination. Finally, I want to dedicate this dissertation to all of those who have never believed in me and/or have given up on me before the fight was over.
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I want to acknowledge and thank all those who helped and contributed with the research and writing of this dissertation, beginning with my committee chair, Dr. Wes Johnson, whose mentorship and ideas were crucial to the culmination of this project. I feel honored and privileged to have such a distinguished scholar as the chair of my dissertation. I also want to thank my committee members Dr. Lisa Nored, who despite her busy schedule as a professor and administrator has always made time to listen to my concerns and edit my manuscript, and Dr. Philip Carlan, whose expertise in research methods and statistics was invaluable during all the stages of the process. Dr. Carlan has generously taken time out of his schedule to help me at the expense of his personal and family life. Last but not least, I would like to thank Dr. Alan Thompson, whose valuable input as a police professional was very helpful in the organization of this project.

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CHAPTER I

INTRODUCTION

Introduction

The role of police organizations has become both pivotal and multifaceted in America’s organic and complex society. As a result, law enforcement personnel are presented with a multitude of challenges and demands in their day-to-day operations. In many communities, police officers must act as first responders (e.g. in serious automobile accidents, terrorist events or natural catastrophes), social workers (e.g. child custody disputes or welfare of the elder) and peacekeepers by dealing with the most deviant members of society.

Although all humans experience stress and stressors in their lives, their source, intensity, and duration vary depending on the social and personal circumstances of each individual (Selye, 1976). Due to the nature of their work, law enforcement officers are constantly subjected to stressful situations such as violence, loss of human life, natural disasters and/or social injustice (Gaines & Jermier, 1983; Harpold & Feemster, 2002). Law enforcement officers are not only forced to deal with stressors faced by most members of society, but are also subjected to the strain of dealing with the stressors afforded by their profession.

Two types of stressors in law enforcement have been identified in an abundance of literature: occupational and personal stressors (Anshel, 2000; Gershon, Lin & Li, 2002). Occupational stressors can be divided into critical incident stressors and general work stressors (Stevens, 2005). Critical incident stressors can be seen as “any high-risk encounter with officer-civilian contacts when an officer reasonably believes he or she
might be legally justified in using deadly force, regardless of whether they use such as force or avert its use” (Stevens, 2005, p. 6). Examples of critical incidents are apprehending a murderer, riot control, high speed chases, and/or shooting incidents. Critical incident stressors expose officers to danger and therefore, personal vulnerability. Continued exposure to critical incidents is highly conducive to high stress and traumatic stress reactions among law enforcement officers (Paton, 2005). General work stressors are related to occupational and organizational variables such as shift work, management style, interpersonal relationships, work roles, and environmental conditions. Personal stressors in law enforcement are related to officers’ personality characteristics, personal perceptions, family variables and interpersonal relationships (Stevens, 2005).

Negative reactions to stressors in law enforcement which are product of environmental factors, or a conglomeration of environmental and psychological variables, are said to have a corrosive effect on officers. These psychological variables are dependent on personal traits, personality, resilience to stress and self-expectations (Waters & Ussery, 2007). Environmental factors are usually related to organizational variables, as well as the nature of police work. The daily pressures of police work have a debilitating effect on police officers as it wears down their confidence, hardiness, and resilience along with their physical and psychological health (Waters & Ussery, 2007).

Because police subculture promotes the notion that only the weak suffer from stress most officers hide their feelings of isolation, depression and anxiety and do not engage in any preventive or proactive strategies to deal with the stress directly related to police work (Beehr, Johnson & Nieva, 1995). Instead, many officers use maladaptive coping mechanisms to alleviate their job-related strain. For instance, alcohol consumption
is one of the most prominent ones as alcohol abuse is condoned and even promoted within the police subculture as a form of self-medication and socialization (Lindsay, 2008; Waters & Ussery, 2007).

The physical and psychological effects of police stress are both dreadful and troublesome. Law enforcement officers have a high incidence of coronary heart disease, diabetes, stomach issues, insomnia, back problems, eating disorders and high cholesterol (Neylan, Metzler, Best, Weiss, Fagan, Lieberman, et al., 2002; Ramey, 2003; Sparrow, Thomas & Weiss, 1983; Söreson, Smolander, Louhevaara, Korhonen & Oja, 2000). In addition, police officers suffer from high levels of cognitive deficiencies such anxiety, depression and aggression (Carlan & Nored, 2008; Gershon, et al., 2002).

The continuous exposure to violence, human misery and critical incidents may be conducive to the development of Post-Stress Traumatic Disorder (PTSD) among law enforcement officers (Gershon et al., 2002; Paton, 2005). PTSD is a serious psychological disorder characterized by intrusive memories of the event and active avoidance of situations identified with such event (Davidson & Moss, 2008). Critical incidents usually trigger PTSD symptomatology and are more frequent in officers who are introverted and have difficulties expressing feelings and emotions (Violanti, 2007).

The stressors intrinsic to police work and its negative consequences have a direct and indirect effect on all law enforcement officers. Rural law enforcement officers are not exempt from the organizational and personal stress of policing. Whether the incidence and the levels of stress of officers policing small towns and rural areas in America are the same as their urban counterparts is very much an open question as police stress research have concentrated on urban samples. Researchers have extrapolated their findings to rural
and small-town officers without considering the specific social, geographical, organizational, and budgetary differences between large urban police agencies and small-town and rural ones (Scott, 2004). As research has concentrated on this law enforcement population, it is necessary to investigate the specific stressors that affect rural law enforcement officers serving rural and small-town America.

Background of the Problem

The majority of law enforcement agencies in the United States serve small towns and rural areas (Reaves, 2010). Large urban departments, however, have been the center of attention for police research (Scott, 2004). There are notable differences between urban and suburban areas and small towns and rural zones. First, criminal incidents and victimization in small towns and rural areas seem to be lower than in large urban parts of the country. Sampson (1992) found that regardless of demographic factors such as age, race/ethnicity, poverty, and density, residents of large cities have a higher risk of victimization than their rural counterpart. Second, social values in large urban centers versus small towns and rural areas differ greatly. Research has demonstrated that the population of rural areas and small towns tend to be more conservative than urban areas. In addition, informal controls and traditional institutions such as church or family have a greater influence on citizens’ behaviors in rural areas (Jiao, 2001). Third, citizens’ legal orientations are different as support for the law is higher on rural areas and small towns than in large cities (Jiao, 2001).

policing styles as the watchman style, the legalistic style or the service style. The watchman style of policing emphasizes the use of police discretion and crime control with very limited interaction in between officers and the community. The legalistic style of policing stresses the strict enforcement of the law with a lack of interest in citizens’ problems. Lastly, the service style of policing is characterized for its citizen-service orientation and the use of informal interventions. Research has shown that most police agencies servicing large metropolitan areas take a legalistic approach to crime and citizen interactions (Crank, 1992). On the other hand, small-town and rural police agencies are more service-oriented in their style of policing. This is because these officers generally have closer ties with their communities and are expected to carry out an array of social-oriented tasks. Additionally, rural and small-town agencies tend to emphasize crime prevention and informal interventions on disputes and other criminal events (Meagher, 1985).

Rural communities and small towns tend not to experience the same social problems as metropolitan areas, and social change is slower in nature (Brock, Copeland, Scott & Ethridge, 2001). Social interactions between officers and citizens are very different than in large urban areas as the likelihood of anonymity vastly decreases in rural communities and small towns. In such small social settings everyone knows what is happening in the private lives of other residents. For example, when a law enforcement officer arrests a resident, everyone knows the arresting officers, the arrestee, and the circumstances of the event. Both the officer and the resident may experience a certain degree of condemnation and stigma for their part in the incident. The resident may be stigmatized by the community in a reintegrative or non-reintegrative manner.
(Braithwaite, 1989), while the officer may suffer the disdain of the resident’s family and friends (Brock, Copeland, Scott & Ethridge., 2001).

Although social change and acute criminal activity may be slower to reach rural communities and small towns, some of them are already experiencing social problems such as drug addiction and manufacturing and gang membership that, four decades ago, were unknown to rural and small-town residents (Donnermeyer, 1994). Due to the belief of some residents that urban social problems do not affect their rural communities and small towns, police agencies are typically unprepared to face such problems, as their resources are scarce. In addition, informal methods of applying the law are not fully effective when dealing with drug consumption and manufacturing, as well as gang violence. Rural and small-town law enforcement agencies are slowly starting to face such social problems with an observable lack of financial, manpower and training resources as, usually, officers serving this areas are generalists (Brock et al., 2001).

In sum, policing large metropolitan areas is intrinsically different than in rural communities and small-towns due to differences in social, economic and geographic characteristics. Thus, the stress and stressors experienced by rural and small-town law enforcement officers may be different than their metropolitan counterparts. Though, little is known on the nature of such stress and stressors as the majority of the existent literature on police stress has concentrated on police metropolitan samples (Falcone, Wells & Westheit, 2002; Weisheit, Wells & Falcone, 1994).

Problem Statement

Law enforcement is one of the most stressful occupations in the United States (Anshel, 2000; Dantzker, 1987; Kop & Euwema, 2001). The strains of the police
profession, together with the expectations and close scrutiny of the media and the citizenry, are frequently a burden that some officers cannot handle both physically and psychologically (Arter, 2008). Accordingly, law enforcement officers experience higher levels of physical and psychological disorders, mortality and alcohol abuse than the general population (Toch, 2002).

Despite the large body of research dealing with police stress, the majority of studies have been conducted using samples within large urban police departments (Crank & Caldero, 1991; Oliver & Meier, 2004). Police stress research that uses samples of law enforcement officers serving rural communities and small towns in the United States is almost non-existent even though the majority of police agencies in America serve towns and areas under 50,000 residents with fewer than 20 officers (Scott, 2004). To this extent, there is a gap in the literature on police stress that must be filled to better understand the nature of the stress, stressors and coping strategies used by the men and women who police rural communities and small towns in the United States.

Law enforcement officers are a crucial part of the first-line of defense of American values and democracy. The bomb attack on the Alfred P. Murrah Federal Building in Oklahoma City in 1995, or the tragic events of September 11, 2001 are critical remainders of the importance of law enforcement and their proactive and reactive strategies to protect citizens from internal and external threats, order maintenance, and crime control. In an era where law enforcement agencies have such a vital role in American society, the mental health of those who protect and serve communities all throughout the United States has to be a main concern for both criminal justice practitioners and academics.
The main purpose of this study is to fill the existing gap in the literature on rural and small-town police stress, stressors and coping as the majority of law enforcement agencies in the United States serve rural communities and small towns (Reaves, 2010). Consequently, a full understanding of police stress cannot be reached without examining the levels of stress, the types of stressors and coping styles of law enforcement officers on rural communities and small towns.

Finally, this study attempts to supplement Oliver and Meier (2004) and Scott (2004) previous studies on the identification of police stressors inherent to small-town and rural policing. As literature on the effects of coping strategies and PTSD on such police populations is scarce, this study aims to provide a baseline for further research on the stress that officers serving rural communities and small towns experience. It is expected that the findings of this study will add to the understanding of police stress by political leaders and police administrators, thus, improving the working conditions and quality of life of those who protect and serve rural and small-town America.

The Purpose of this Study

This study has four main goals: (1) to examine how work-related stress affects the levels of perceived stress, anxiety and depression for rural law enforcement officers; (2) to explore the specific stressors affecting rural law enforcement officers; (3) to investigate how rural law enforcement officers cope with work-related stress; and, (4) to study how individual officers’ demographic characteristics affect their levels of perceived stress, as well as their coping styles.
Definitions of Terms

The following definitions are provided in order to achieve a better understanding of some of the terms included in this study:

*Coping with Stress*: “the overt and covert behaviors used by individuals to manage stressful conditions, especially work place problems that are appraised as taxing” (Haar & Morash, 1999, p. 307).

*Municipal Police Officer*: Uniformed peace officer who works in municipalities of various sizes. Municipal police officers have different police duties such as general patrol and responding to calls for service (Peak, 2009). For the purpose of this study, municipal officers are those working in municipalities with less than 50,000 residents in a southern state.

*Non-Urban Municipality or Small town*: Municipalities or towns with less than 50,000 residents (Hall, Kaufman & Ricketts, 2006).

*Occupational Stress*: “the inability of the individual worker to cope effectively with various work demands” (Blix, Cruise, McBeth & Blix, 1994, p. 158).

*Posttraumatic Stress Disorder*: A psychological disorder that stems from an event in which one is exposed to serious threat of injury or death and then experiences extreme fear, helpless or horror through recurrent dreams and constant recollection of such event (Keane, Marx & Sloan, 2009).

*Rural Law Enforcement Officer*: All municipal police officers and Sheriff deputies serving towns and counties with less than 50,000 residents.
**Sheriffs’ Deputy:** A peace officer employed by the sheriff of a particular county (Peak, 2009). For the purpose of this study, sheriff’s deputies are those working in counties with less than 50,000 residents.

**Strain:** The response of the human body to stress and stressful events (Dollard, Winefield & Winefield, 2003). While individuals experience stress at the psychological level, strain is experienced at the physical level (Kavitha, 2009).

**Stress:** “the non-specific response of the body to any demand” (Selye, 1976, p. 53). Lazarus and Folkman (1984) defined/operationalized Selye’s previous conceptualization and defined stress as “a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being” (Lazarus & Folkman, 1984, p.19).

**Stressors:** A stressor is “an agent that produces stress at any time” (Selye, 1976, p. 53). These agents can be external or internal. Examples of external stressors are work conditions and environmental factors affecting an individual. Personal perceptions, beliefs and past traumatic events can be considered internal stressors.

**Scope, Limitations and Generalizability**

The scope of this study is limited to law enforcement officers who serve towns and counties in a southern state, with less than 50,000 residents. Twenty-seven municipal and twenty-seven sheriffs’ departments were randomly selected as a sample for this study according to their population characteristics. This study has several possible limitations. First, this study only concentrated on law enforcement officers employed in the state. Although some general patterns can be delineated, generalizability is not one of the main goals of this study and extrapolation of these results to other states should be done with
caution. In addition, this study relied on a self-report instrument. As such, this study is counting on the number and types and officers that returned the survey to the researcher.

Summary

This exploratory study had four main goals. (1) to examine how work-related stress affects the levels of perceived stress, anxiety and depression for rural law enforcement officers; (2) to explore the specific stressors affecting rural law enforcement officers; (3) to investigate how rural law enforcement officers cope with work-related stress; and, (4) to study how individual officers’ demographic characteristics affect their levels of perceived stress, as well as their coping styles.

This study is an attempt to expand the scant literature on police stress in rural America as well as the findings of Sandy and Devine (1978), Oliver and Meier (2004) and Scott (2004). It is anticipated that the results of this study will provide a better understanding of the nature of police stress and coping styles of rural and small-town officers. Also, the findings of this study will have a positive influence on officers’ work-related stress in two ways: First, political leaders and police executives in predominately rural states may achieve a better understanding of the specific stressors affecting rural and small-town officers. Secondly, officers may better identify stress and stressors in their professional life and allocate some of their time to deal with such events.

The remainder of this study is organized as follows: In Chapter II, the researcher will offer an exhaustive review of the literature on the history of policing in America, law enforcement in rural and small-town America, the nature of stress and occupational stress, and the after effects of high levels of stress on police officers. In Chapter III, the researcher will explain the methodology of this study describing the study design, the
survey instrument, the variables employed in the study and the statistical techniques used to investigate such variables. In Chapter IV, the researcher presents the data analysis and findings of this study. The discussion, policy implications and limitations of the study will be presented in Chapter V.
CHAPTER II

REVIEW OF THE LITERATURE

Introduction

Every person is subjected to stress in one way or another. Stress may be triggered by family problems, money difficulties, or work concerns. Stress affects individuals in different ways. Thus, what may be stressful to someone may be normal to another person (Agnew, 2006). Therefore, individuals cope with stress differently. If two people are exposed to the same traumatic event (e.g. the loss of a parent on a car accident), one person may react by showing external signs of sadness, rage and frustration, while the other may internalize his or her feelings.

Policing is one of the most dangerous and stressful careers in the United States (Anshel, 2000; Collins & Gibbs, 2003; Kop & Euwema, 2001). On a daily basis, law enforcement officers put their lives on the line to protect and serve citizens and to keep social order. Whether it is an automobile accident, a homicide, or a child abuse case, law enforcement officers are constantly witnessing human misery, and observing society members as either victims or perpetrators. The cumulative effects of dealing with traumatic events, the potential of personal injury, the fast-paced nature of the job, the unpredictability of citizens, and the environment can carry a vast amount of psychological strain on law enforcement officers, affecting their physical and psychological well-being (Liberman, Best, Metzler, Fagan, Weiss & Marmar, 2002; Olson and Surrette 2004).

Law enforcement officers cope with stress in different ways. Some officers use positive coping mechanisms such as organized sports, volunteering and/or hobbies, while
others use maladaptive coping strategies such as drinking, drug use, and/or violence. To this extent, coping with stress may affect job performance, social interactions, and personal relationships in a positive or a negative fashion (Anshel, 2000; Patterson, 2003).

The majority of law enforcement agencies in America serve towns with less than 50,000 residents (Reaves, 2010). However, large metropolitan police agencies have been the primary focus of police stress research. Thus, most research on police stress has been conducted in large metropolitan areas which have resulted in a gap in the literature on rural and small-town law enforcement officers’ experiences. Rural and small-town policing greatly differs from big-city policing in terms of agency structure, operational goals, social dynamics with the community, number of officers, training and equipment. Rural and small town police officers and sheriffs’ deputies have a different set of problems and concerns related to their daily work in their communities (Oliver & Meier, 2004; Scott, 2004; Walker & Katz, 2002).

This literature review is threefold. First, the researcher will offer a brief overview of the historical development of policing in America, providing a contemporary look of policing in the United States, incorporating an exploration of rural and small-town policing and a portrayal of urban and non-urban police subcultures. Second, the researcher will provide a close examination of the nature of stress and occupational stress and their relationship with law enforcement. Also, the physical and psychological consequences of stress on law enforcement officers will be explored. Particular attention will be given to examining the relationship of stress with gender and race, the nature of officers’ personal relationships and how police cope with the demands of their job. Third, a theoretical framework will be used to explain how stress affects policing.
A Brief Historical Overview of the Development of the Police in America

Police organizations are a crucial part of American society. As dynamic entities, their roles and functions have changed throughout history to better serve the interests of social and political entities and the citizenry. To this extent, an understanding of the historical development of law enforcement entities in the United States is needed to gain an insight on police issues and their relationship with other members of society.

*Early Law Enforcement*

Since the development of early societies, groups of individuals have been used to protect members of society from unwanted or deviant behavior and/or to maintain the status quo of those in power. As such, in ancient Egypt, a group of armed men were used as gatekeepers of cities, on temples to control human traffic, protect citizens, and protect the property of influential public figures and landowners (Brewer & Teeter, 2007). Later, Roman emperors effectively used the military to prevent any likely revolts and to keep order on the main Roman Empire cities. Emperor Augustus established a non-militaristic force: the *vigiles*. The main responsibilities of the *vigiles* were to keep the peace and also to serve as firefighters duties in the city of Rome (Wells, 1995).

The origins of modern police organizations can be traced to Britain (Uchida, 2001). After the Norman Conquest of 1066, a new system of community policing was established: the *Frankpledge*. This community police system was based on a small group of citizens (10 members) who swore to keep their communities free of crime by apprehending and bringing to justice any member of the community who committed a crime (Uchida, 2001).
As the use of the Frankpledge began to decline across Britain, the parish constable system flourished as a method of law enforcement (Uchida, 2001). Serving one-year terms on a rotating basis, constables were responsible for a group of watchman who provided security at night for the citizenry. In the Fourteenth Century, the figure of the Justice of the Peace was created to uphold laws in every British county. In addition to supervising watchmen, constables were assistants to the Justice of the Peace serving warrants and taking criminals into custody to appear before them (Uchida, 2001). The British system of law enforcement is considered a very primitive one. Johnson (1981) described this system as relying “upon unpaid amateurs who had no special knowledge, skills, or commitment to dealing with crime” (Johnson, 1981, p. 3).

**Law Enforcement in the American Colonies**

English settlers transplanted the British law enforcement system to the American Colonies. During the Seventeenth century, law enforcement was deemed a local responsibility. As such, the watchmen system remained in place, as did the role of the constables. In 1631, Boston created the first official watchmen night system to prevent crime and protect property (Johnson, 1981). As citizens resisted to serve as unpaid watchmen, some cities such as New York or Boston introduced a paid watch by the 1660s. However, by the end of the Seventeenth century, colonists still relied on a volunteer law enforcement force to protect lives and property (Johnson, 1981).

The figure of the sheriff also appeared during this period. Elected by the governor, sheriffs were responsible for collecting taxes, taking into custody criminals and serving subpoenas. As sheriffs’ got paid a specific amount for each job they did,
collecting taxes were their main priority, as they received more fees for that task. Hence, law enforcement was very low in their list of priorities (Uchida, 2001).

During the Eighteenth Century, colonial towns increased on population and the economy considerably expanded, and so did crime. In seaports, sailors and other workers looked for diversion and public drunkenness and brawls increased. Most colonists were more focused on achieving economic success than in fulfilling law enforcement duties. Therefore, the job of a watchman or constable appeared very troublesome and unpleasant for many (Johnson, 1981). As the idea of a volunteer-based police force was breaking down, the residents of Philadelphia promoted the figure of the warden who had the authority to hire as many paid watchmen as necessary. Wardens had great authority on the hiring process and on the dismissal of those inefficient for the job (Johnson, 1981).

Contemporary American policing has been influenced by American colonial law enforcement in two main ways. First, the colonists developed a local law enforcement system as opposed to a centralized one. Moreover, as English began to struggle with an increasing crime problem during the first part of the Eighteenth century, they developed the concept of crime prevention, which served as the philosophical basis for the creation of modern police organizations (Johnson, 1981).

The Development of Modern Police Organizations in England and America: 1829-1860

The development of modern police organizations was brought by two social phenomenon: Urbanization and industrialization (Peak, 2009). As the industrial revolution changed the social structure and landscape of big cities in Europe and North America, the old system of policing became ineffective to fight increased social unrest, crime and rapid social change.
During the early 1800s, food riots and wage protests were a common occurrence in the streets of London. Fear of crime and disorder became one of the main concerns of London residents (Uchida, 2001). As such, the British parliament passed the Metropolitan Police Act of 1829. This Act, sponsored by Sir Robert Peel, established a full-time, uniformed police force patrol the streets of London, to fight crime and social unrest (Peak, 2009; Uchida, 2001). The London police was developed under the idea of crime prevention (Peak, 2009).

With 3,000 officers, the London Metropolitan Police became a constant presence in the streets of London. Peel and his two police commissioners divided the city into “beats”, geographical areas by foot (Walker, 1992). The “Boobies” had the reputation of being even-tempered, disciplined and cordial. They also did not carry any type of weapon (Uchida, 2001).

The London Metropolitan Police became the model for American law enforcement organizations (Walker, 1992). As the industrial revolution brought the same social problems to America that had been experienced in European cities, a need for a police force became evident. In the 1830s, American cities experienced a wave of riots fueled by ethnic disputes, between Irish or German immigrants and native-born Americans, and racial violence between abolitionist and those who supported slavery (Uchida, 2001; Walker, 1992). At the same time, an increase on robberies, thefts, homicides, vagrancy, and street-prostitution created a sense of loss of social control and an acute fear among law-abiding citizens (Uchida, 2001).

In 1845, modeling the London police model, the first full-time police department in the United States was created in New York City (Richardson, 1970). Other major
American metropolis followed suit: Cincinnati and New Orleans (1852), Philadelphia and Boston (1854), Chicago (1855), and Newark and Baltimore (1857) (Peak, 2009). By the end of the Nineteenth century, every major city in the United States had a police force based on the London Metropolitan Police model (Peak, 2009).

*The Political Era of Policing: 1870-1920*

The British model of law enforcement was highly centralized and organized. In contrast, American law enforcement was highly decentralized, politically-controlled and extremely chaotic in nature. Johnson (1981) described police in American cities in this fashion:

In keeping with the widespread belief that power should not be concentrated in too few hands, large number of politicians had a direct role in controlling the police. Individual neighborhoods, represented by those politicians, influenced arrest policies. Patrolmen, recruited from those neighborhoods, shared much of the outlook of the people they policed...Uniform enforcement policies did not exist. The lack of training, especially in the law and legal procedures, meant that policemen had only the vaguest notions about collecting evidence or safeguarding a citizen’s rights (p. 55).

Police corruption and political patronage was widespread during the political era (Johnson, 1981; Peak, 2009; Uchida, 2001). Political machines ran local governments and employment in exchanges for votes was a common practice. Police officers were typically political appointees who protected the illegal activities of politicians and their associates (Uchida, 2001). For instance, William Devery, who served as New York Chief of Police from 1898 to 1901, protected the illegal activities of his friend Tim Sullivan; a well-known politician from the Lower East Side (Uchida, 2001).

At the beginning of the Twentieth century, the progressive movement sought to create a truly professional police force (Peak, 2009; Uchida, 2001). The progressives, a group of upper middle-class educated individuals advocated for the centralization of
police departments, the elimination of the influence of political machine on law enforcement, training for officers, and specifying the mission of the police (Fogelson, 1977). In addition, the progressives proposed civil service as the main strategy to fight corruption and political patronage. As such, the selection and promotion of officers would be determined by a system based on merit (Uchida, 2004).

The reforms promoted by the progressives did not significantly change the influence of political machines on urban police departments (Johnson, 1981, Peak, 2009). However, they eliminated some of the corruption and patronage, and paved the road for the reformation of law enforcement agencies.

*The Professional Era of Policing: 1920-1965*

The structure and image of police departments drastically changed between 1920 and 1965 (Johnson, 1981). In this era, reformers changed the landscape of American law enforcement by changing police departments’ structures and converting them into centralized bureaucracies where the police chief, in lieu of the local politician, had the power over the mission and active roles of the department. In addition, reformers increased the number of officers, imposed physical and educational standards and introduced mandatory and meaningful training (Johnson, 1981).

August Vollmer, the Chief of Police of Berkley, California was one of the main reformers of this era (Carte & Carte, 1975; Parker, 1961). Vollmer gained national notoriety for using cars to patrol the city and creating a police school, where officers were taught “courses on police methods and procedures, fingerprinting, first aid, criminal law, anthropometry, photography, public health, and sanitation” (Peak, 2009, p. 28). Vollmer was also a big advocate of police officers as social workers, and also is
considered one of the early proponents of community policing (Carte & Carte, 1975; Parker, 1961).

Following Vollmer’s lead, Orlando W. Wilson and William H. Parker became two very influential advocates of police professionalism (Johnson, 1981). In 1951, Parker, L.A.P.D. Chief of Police, conducted a complete administrative reorganization following allegations of police brutality in 1951. Parker transformed the command structure and process of selection and training of officers (Peak, 2009). A disciple of Vollmer, Orlando W. Wilson was a big advocate for police training as police chief in Wichita, Kansas. In the 1960s, Wilson became Chicago’s chief of police. Historically, the city of Chicago has been notorious for their boss system and its resistance to police professionalism (Johnson, 1981). Wilson conducted a profound administrative and operational reform of the Chicago Police Department, with the implementation of technological advances as hallmark of his tenure (Johnson, 1981).

*The President’s Crime Commission*

The 1960s were a time of civil unrest and major social changes in the United States as American society became more conscious of social and economic inequalities, which resulted in the movement of civil rights (Williams & McShane, 2010). The civil rights movement, a peak of urban crime and continuous Vietnam War protests brought the police under national scrutiny as riots and protests typically turned into street violence (Peak, 2009; Walker, 1992). In addition, crime almost tripled during the 1960s and 1970s, tarnishing the public image of the police (Uchida, 2001).

President Lyndon Johnson created the President’s Crime Commission to “find solutions to America’s internal crime problems, including the root cause of crime, the
workings of the justice system, and the hostile, antagonistic relations between the police and civilians” (Peak, 2009, p. 33). Among other recommendations, the President’s Crime Commission advised law enforcement agencies to hire more minority officers to improve relations with the community, hiring and promoting college-educated officers as well as intensive pre-service training for police recruits (Walker, 1992).

The President’s Crime Commission, directly and indirectly, refuted the main ideas of the police professionalism era, in which officers were seen solely as crime fighters. As such, the President’s Crime Commission indicated that police forces should be in contact with the community often, creating the bases for the community-policing era (Johnson, 1981; Walker, 1992).

The Community Era of Policing: 1980s to Present

As a result of the social unrest of the 1960s and 1970s, a new philosophy emerged in police operations and strategies; community-oriented policing (Uchida, 2001). Community-oriented policing was implemented as a response to the gap of communication between police agencies, communities and citizens, as well as several empirical studies that had challenged the validity of police tactics and operations (Uchida, 2001).

Reactive strategies, random patrol, and isolation from the community were harshly criticized by criminal justice scholars. Herman Goldstein (1979) was a proponent of problem-oriented policing. Problem-oriented policing was a policing strategy based on research of the root of crime in certain areas and the use of crime prevention which unites the police and the community on crime-fighting strategies (Goldstein, 1979).
In their “Broken-Windows Theory,” James Q. Wilson and George L. Kelling (1982) proposed to remove police officers from their patrol cars, to increase foot patrols in order to lessen fear in the community. Wilson and Kelling (1982) believed that by reinforcing the informal controls on communities as well as preventing urban decay (e.g., the existence of graffiti, abandoned homes, etc) crime would considerably decrease. To this extent, Wilson and Kelling (1982) argued that “we must return to our long-abandoned view that the police ought to protect communities as well as individuals....the rest of us ought to recognize the importance of maintaining, intact, communities without broken windows” (Wilson & Kelling, 1982, p. 474).

Proponents of community-policing strategies advocated for the police to interact and engage with the community, to empower informal institutions within the community, and change police organizations administration to support the ideal of community-policing (Gianakis & Davis, 1998; Goldstein, 1987).

Contemporary Law Enforcement in America

There are more than 18,000 law enforcement agencies in the United States at the federal, state and local levels (Walker & Katz, 2002). As of 2009, there were 641,590 patrol and sheriff officers, 110,380 criminal investigators and detectives, and 99,900 first-line supervisors/managers of police and detectives working in American law police agencies (Bureau of Labor Statistics, 2009). By 2008, there was 100,000 female officers employed in local, state and federal law enforcement agencies (Langton, 2010), and 24% of all police officers in the United States were minorities (Peak, 2009). The average salary of a first-line supervisor/manager was $78,580 per year, while patrol and sheriff officers earn an average of $55,180 per year in 2009 (Bureau of Labor Statistics, 2009).
Most police agencies in the United States are bureaucratic in nature, with a clearly defined hierarchical structure and a highly ordered chain of command (Peak, 2009). The expected role of sworn-personnel is defined by a rigid set of policies, procedures and regulations. These strict guidelines ensure that officers follow proper protocol, and regulations to enhance public protection and to protect the agencies’ quasi-militaristic bureaucratic model (Peak, 2009).

American law enforcement agencies are characterized by high fragmentation and decentralization. Police services are offered at four different levels of government: federal, state, county and city (Walker & Katz, 2002). However, at the core of American law enforcement are municipal police departments. By 2007, there were an estimated of 12,575 local police departments operating in the United States, which employed 463,000 full-time peace officers (Reaves, 2010).

Most municipal police departments in the United States serve small towns and rural areas (Walker & Katz, 2002). According to Reaves (2010), 12,292 departments serve towns with less than 50,000 inhabitants, while only 95 municipal police departments serve towns with more than 250,000 inhabitants. Operationally speaking, policing in big cities is very different from law enforcement in small-town and rural areas. Although the majority of crime is concentrated in big metropolitan areas, rural and small-town officers have a very specific set of challenges and operational issues that are often underestimated by the general public, government officials and criminal justice researchers (Walker & Katz, 2002).

The role of the police in the new century revolves around community policing. Swanson et al., (2008) noted that the community-policing philosophy is based on five
principles: (1) prevention of crime; (2) organizational change; (3) public scrutiny of the police; (4) customized police service; and, (5) community organization. Police departments have made attempts to promote partnerships within the community to prevent crime. Traditional operational strategies, such as horse patrol and “walking the beat,” have been reintroduced as ways to bring the police and the community together (Oliver, 2001a).

Perhaps the biggest challenges for police organizations in this era are to decentralize the structure of police departments and improve the flow of communication between all levels in the organization (i.e., officer-supervisor and officer-community) (Maguire, 1997). To some, police administrators had to change police strategies by making police deployment proactive, preventive and community-oriented (Friedman, 1996; Maguire & King, 2004). However, Peak (2009) argued that many police departments still use reactive strategies and preventive patrol as main strategies. As managerial and technological advancements have not reached many mid-size and small police departments, such police departments must rely on professional police strategies.

The future of police organizations and community policies in the United States depends in part on how police administrators attract more highly educated and demanding individuals as well as how women and minorities are integrated in police organizations (Maguire & King, 2004). Roberg, Kuykendall and Novak (2002) posited that police administrators needed to move their organizations from an authoritarian style of management to a participatory style. This may require officers to be more involved in the decision-making process of the organization and police administrators to promote teamwork and open communication among management and officers. As the American
society is constantly evolving and changing police agencies and their administrators ought to implement necessary administrative and structural changes to better serve the residents of those communities they serve and protect (Roberg et al., 2002).

Rural and Small Town Policing in America

From highly populated urban settings to rural and small-town areas, law enforcement agencies maintain social order, fight crime and provide social services when necessary. Although their core mission may be very similar, big-city police departments operate in a very different framework than rural and small-town police (Walker & Katz, 2002). While urban police departments mainly deal with serious crime and order maintenance, rural and small town police agencies primarily deal with noncriminal calls for service and trivial disturbances (Weisheit, Falcone & Wells, 1996). To this extent, rural and small-town police agencies and their officers have a very different set of operational and practical issues than their big-city counterparts.

Research on Rural and Small-Town Policing

Most police research has been conducted in large, metropolitan police agencies (Falcone et al., 2002; Payne, Berg & Sun; 2005; Pelfrey, 2006; Weisheit et al., 1994). Research related to rural and small town policing is limited and there are only a few researchers who have examined policing in such areas (Falcone et al., 2002; Payne et al., 2005; Pelfrey, 2006; Thurman & McGarrell, 1997; Weisheit, et al., 1994; Weisheit, et al., 1996).

Research on rural and small-town police has focused on examining officers’ responses to certain offenses (Ball, 2001; Hafley & Tewksbury, 1996; Websdale & Johnson, 1998), community-policing in rural areas (O’Shea, 1999; Weisheit et al., 1994;
Zhao & Thurman, 1997), and rural police operations (Baird-Olson, 2000; Weisheit et al., 1996). Payne et al. (2005) enumerated some reasons why research on rural and small-town policing is so scarce. First, rural residents and police may be less willing to share information with outsiders, making it difficult to conduct research on such areas. Second, an adequate sample of rural police officers is difficult to gain, as rural and small-town police departments employ a small number of officers. As such, researchers have to spend a great deal of time and resources to obtain data from multiple jurisdictions, which is not always feasible. Lastly, as urban police officers deal with more crime than rural police officers, there is a widespread belief that rural law enforcement officers are not “real” crime-fighters (Falcone et al., 2002; Payne et al., 2005). As researchers have mostly turned their attention to urban policing, little is known about rural and small-town policing and how specific issues, such as work-related stress, affects law enforcement officers serving rural and small-town America.

**Crime in Rural and Small-Town America**

Past research has demonstrated that crime in rural areas and small towns is less prevalent than in urban areas. The social dynamics of small towns and rural areas, as well as the strength of informal social controls and their social cohesiveness are effective buffers for the development of crime at a great scale (Weisheit et al., 1994). This common belief has been supported by statistical data provided by the Uniform Crime Report (UCR) when it compared offenses per population in their studies.

In 2009, the UCR reported that the total number of violent crimes known to the police in cities with more than 50,000 residents was 754,878, while cities with less than 50,000 residents reported 242,884 offenses. Regarding to property crimes, police
agencies serving towns with more than 50,000 residents reported 4,504,978, while 2,362,382 offenses were reported by law enforcement agencies serving towns with less than 50,000 residents (Federal Bureau of Investigation, 2010).

In regard to offenses committed in metropolitan and nonmetropolitan counties, the differences are also considerable. Metropolitan counties reported a total of 202,235 violent offenses compared to the 52,972 violent crimes reported by nonmetropolitan counties. Perhaps, the number of property crimes showed the biggest discrepancy in crime between metropolitan and nonmetropolitan areas. Metropolitan counties reported 1,496,739 property crimes, while nonmetropolitan counties reported 404,483 offenses (Federal Bureau of Investigations, 2010). See Tables 1 and 2 for more details.

Table 1

**Comparison of Crime by City Size (2009)**

<table>
<thead>
<tr>
<th></th>
<th>Murder/ Manslaughter</th>
<th>Forcible Rape</th>
<th>Robbery</th>
<th>Aggravated Assault</th>
<th>Burglary</th>
<th>Larceny</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cities with more than 50,000 residents</td>
<td>9,084</td>
<td>118,564</td>
<td>286,020</td>
<td>421,891</td>
<td>1,032,649</td>
<td>2,992,367</td>
</tr>
<tr>
<td>Cities with less than 50,000 residents</td>
<td>2,217</td>
<td>20,210</td>
<td>59,382</td>
<td>161,055</td>
<td>481,857</td>
<td>1,753,335</td>
</tr>
</tbody>
</table>

Source: Uniform Crime Report, 2009
Table 2

*Comparison of Crime between Metropolitan and Nonmetropolitan Counties (2009)*

<table>
<thead>
<tr>
<th></th>
<th>Murder/ Manslaughter</th>
<th>Forcible Rape</th>
<th>Robbery</th>
<th>Aggravated Assault</th>
<th>Burglary</th>
<th>Larceny</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metropolitan Counties</td>
<td>2,393</td>
<td>15,207</td>
<td>46,772</td>
<td>137,863</td>
<td>407,333</td>
<td>958,169</td>
</tr>
<tr>
<td>Non-metropolitan Counties</td>
<td>903</td>
<td>6,364</td>
<td>4,367</td>
<td>41,338</td>
<td>142,475</td>
<td>234,595</td>
</tr>
</tbody>
</table>

Source: Uniform Crime Report, 2009

**Crimes Relevant to Rural and Small-Town Policing**

The rise of gangs in rural and small-town America has been a concern for law enforcement agencies policing these areas (Weisheit & Donnermeyer, 2000; Weisheit et al., 1994). The expansion of drug trafficking from urban areas to rural areas has been cited as the main driving force of the prevalence of rural gangs. Gangs are more prominent in areas in close proximity to metropolitan areas, but some researchers and law enforcement officials have argued that even the most remote rural areas have shown ties with urban gangs. Studies have concluded that rural areas seem to be an important point of production and/or operation of marijuana, methamphetamines, crack cocaine and designer drugs (Weisheit & Donnermeyer, 2000).

Alcohol is the drug of choice of American youth, especially in rural areas (Weisheit & Donnermeyer, 2000; Weisheit et al., 1994). Arrests for driving under the influence (DUI) have considerably increased in the last two decades in rural areas (Jacobs, 1989) creating a concern among local authorities and law enforcement officials.
To this extent, the use of alcohol by urban and rural youth is almost equal (Weisheit & Donnermeyer, 2000).

The rates of family violence and child abuse seem to be similar across urban and rural areas. As social closeness and cohesiveness is more prominent in rural and small towns, family violence may be considered a private matter. To this extent, women are often reluctant to come forward and press charges for domestic violence due to fear to informal social consequences (Bell, 1986, 1989). The absence of adequate social service agencies in rural areas limit women from denouncing and escaping violent/threatening domestic situations (Websdale, 1998; Weisheit & Donnermeyer, 2000). In fact, “most (68 percent) rural agencies report having no shelter for battered women in their jurisdiction, and for those without a shelter, the nearest is an average of 36 miles away” (Weisheit & Donnermeyer, 2000, p. 323). In regards to child abuse, previous studies has shown that the rates of abuse of urban and rural areas are similar (Wolfner and Gelles, 1993). It has been argued that spouse and child abuse is facilitated by “physical isolation, a patriarchal ideology, and isolation from potentially, supportive institutions, including child care, health care, schooling, and other social services” (Weisheit & Donnermeyer, 2000, p. 322).

_Policing Rural and Small-Town America_

Approximately 90% of the police departments in the United States serve towns with less than 50,000 residents (Reaves, 2010). There is not a consensus on a definition of rural or small-town policing, nor a defined classification of police departments according to their size. However, rural and small-town agencies share a common set of characteristics (Falcone et al., 2002).
One of the common characteristics of small-town and rural police agencies is that, when compared to urban police departments, rural and small-town police agencies expend less on their officers. In 2007, the average yearly expenditure per officer in urban agencies (serving more than 50,000) residents was $130,360, while small-town and rural police agencies (serving less than 50,000 residents) spent $91,350 per officer (Reaves, 2010).

Contrary to officers’ specialization on urban areas, rural law enforcement officers tend to be generalists (Falcone et al., 2002). Every officer performs patrol duties and has to be reasonably proficient in specialized areas, such as crime scene investigation, interrogation and general investigation techniques (Falcone, et al., 2002).

Policing in rural and small-town America is a clear reflection of the close relationship of the community and the police (Payne et al., 2005). Most rural and small-town police agencies present an internal conflict between “maintaining close personal ties to members of the community and maintaining the distance from citizens implied in the concept of professionalism” (Falcone, et al., 2002, p. 376). As rural and small communities are socially interconnected, it is difficult for officers to separate their personal relations in the community with their job as law enforcers. In addition, there are many instances where police officers act as social workers in their communities as social services may be scarce or non-existent in these areas. It is not uncommon for officers to informally solve family disputes or provide social needs present in their communities even when they are not on-duty (Payne et al., 2005).

The tasks and workload of rural and small-town police officer greatly differ from their urban counterparts (Decker, 1979; Marenin & Copus, 1991; Meagher, 1985;
Weisheit et al., 1994; Weisheit et al., 1996). Meagher (1985) conducted a study on task behaviors of 531 police patrol officers from 249 police agencies, which were divided into three categories: small (1 to 29 officers), medium (30 to 99 officers) and large (100 or more officers). Meagher (1985) concluded that patrol officers in small agencies were focused on crime prevention (e.g. patrolling school areas), medium agencies with service-oriented tasks (e.g. Responding to vehicular accidents), and large agencies with the crime control and order maintenance (e.g. Responding to robberies in progress).

Other studies reflect the nature and variation of tasks of rural and small town officers. Teske (1982) conducted a study in Huntsville, TX, a small college town north of Houston. Teske (1982) noted that Huntsville’s officers were very involved in their community, very service-oriented and maintained excellent relations with the University police and the local sheriff’s office. Teske (1982) commented that the amount of free-time Huntsville’s officers had resulted in apathy and boredom. Marenin and Copus (1991) observed officers in remote villages in Alaska. As these communities lacked social services agencies and were geographically isolated, police officers conducted a variety of tasks, such as emergency medical services, firefighting services and search and rescue missions.

**Community Policing in Small-Town and Rural America**

Since the 1980s, community policing has changed police organizations in America. The philosophy of community policing is built upon a partnership between police agencies, community members, and organizations to identify and solve problems in the community. To this extent, community members and police join forces to
proactively deal with issues like fear of crime, social disorder and criminal activities in neighborhoods and towns (Bureau of Justice Assistance, 2010).

Some observers have qualified rural and small-town police departments as natural areas in community policing due to their intrinsic involvement with the community and their organizational and operational characteristics (Falcone et al., 2002; Weisheit et al., 1994). Rural and small-town police agencies have been considered “informal community-based policing institutions” (Falcone et al., 2002, p. 378), in which officers are usually community members and imbedded in the community’s culture. These agencies base their operations on accountability to the community and community support. As such, rural law enforcement officers usually work with the community to solve issues in the least invasive manner possible. More legalistic approaches to policing are reserved for situations in which there is no option for informal arrangements (Falcone et al., 2002).

Several studies have addressed the implementation and patterns of community policing in American rural areas (Maguire, Kuhns, Uchida & Cox, 1997; Weisheit et al., 1994). Using a sample of 6,000 American law enforcement agencies serving less than 50,000 residents, Maguire et al., (1997) examined the level of community policing implementation in non-urban areas. Maguire et al., (1997) found that only 125 of the agencies in their sample had established a community policing plan and 31% of the 125 provide specific training on community policing strategies to their officers. In addition, departments with more than 50 officers were more likely to use community policing as their main operational strategy than smaller departments.
Rural and small-town police chiefs have claimed that community policing strategies have been used in their jurisdictions for a long time. Although community policing and rural policing are completely different philosophies, community policing can be viewed as “a formalized and rationalized version of small town policing” (Weisheit et al., 1994, p. 565). In its more simple form, community policing is a philosophy that is historically embedded in rural and small town policing. Police chiefs and sheriffs policing rural areas and small-towns have claimed that community policing has always been an integral part of their policing style due to the close ties of police to the community and their informal operational strategies (Payne et al., 2005; Weisheit et al. 1996).

One of the main implications of community policing is the change on the organizational structure of police agencies. Police organizations in the community policing era have been moving “from segmented, hierarchical, paramilitary bureaucracies that flatter, to more participatory and flexible organizations” (Weisheit et al., 1994, p. 551). Most urban police departments rely on the paramilitary model. However, rural and small-town departments seem to have only insignificant similarities to the paramilitary model of police organizations. Falcone and Wells (1995) described rural and small-town police agencies as following an informal militia model where officers are selected from the community to protect and preserve residents and their norms and values.

The Police Subculture

*Norms, Values, Culture and Subcultures*

Norms, values, and culture are intrinsically related anthropological concepts which help members of society to learn proper and unacceptable behavior. Norms can be
defined as those perceptions common to members of a determinate social group. For instance, all social groups have unwritten norms about how to behave in public or how to talk to elders. Values, however, are “conceptions of the desirable that define the way social actors evaluate people and events, and explain their actions and their evaluations” (Schwartz, 1999, p. 24-25). Cultural values describe the shared ideas of a social group of what is good or bad (Schwartz, 1999).

Defining culture is a difficult task as it is a concept with numerous meanings. Culture is an ever-changing phenomenon that is continuously reshaped by human interactions and shared beliefs (Schwartz, 1999). For the purpose of this study, culture is defined as the integrated whole of a society, which includes the norms, values, knowledge, beliefs, laws, customs and meanings that society members share and acquire (Stojkovich, Kalinich & Klofas, 2008). New members of society are socialized to follow the specific cultural goals and values of that society. For example, American culture is characterized by certain values such as individualism, patriotism and self-reliance.

Subcultures exist in any culture. Albert K. Cohen (1955) described the concept of subculture by observing the behavior of working-class youths and the formation of delinquent gangs. Although they are an integral part of the main culture, subcultures have a different set of values, norms and beliefs that distinguish them from the larger culture (Cohen, 1955). For instance, motorcycle gang members may share the values of patriotism, individualism and self-reliance with the majority of Americans. However, they have a specific subset of values and norms that dictate their beliefs and actions.
Organizational Culture

Societal culture has a key role in developing organizational culture. Most organizations have a very defined culture which can be described as “a set of assumptions, values and beliefs shared by members of an organization” (Stojkovich et al., 2008, p. 222-223). The explicit cultural characteristics of each organization direct the behavior of each organizational member and creates behavioral regularities (Stojkovich et al., 2008). These include language, dominant values, patterns of interactions, rituals, and the process of socialization to the organization (Stojkovich et al., 2008).

New members of an organization are socialized into the values, norms and behaviors by members of that social system. This process is called occupational socialization (Ott, Parkes & Simpson, 2008; Stojkovich et al., 2008). Occupational socialization is an ongoing phenomenon that occurs formally (e.g. training) and informally (e.g. work group cultures). During this process, new members learn the legitimate and illegitimate norms, values, and behaviors expected by the organization (Stojkovich et al., 2008).

Organizations are commonly composed of subcultures that exist within the main organizational culture. These subcultures are usually antagonistic, as they struggle to influence and dominate the cultural characteristics and patterns of behavior of the organization (Johnson & Gill, 1993). For instance, senators are all members of Congress. However, Democrat and Republican senators struggle to dictate their ideological positions on the legislative process.
The Police Subculture

Police officers have a specific set of shared beliefs, norms, values and behaviors. These are developed as a response to the nature of their work and their occupational environment (Manning, 1989; Cochran & Bromley, 2003). The police culture is highly influenced by a unique occupational environment, one where police officers are continuously exposed to danger, human misery, and intense situations mixed with hours of tedious patrol and boredom. In such extreme working conditions, the solidarity of police increases in response to the strains and demands of the job strengthening the influence of the police culture. Cochran and Bromley (2003) argued that police culture is the result of how officers perceive their role as police and the scope of this role; their beliefs regarding how their role should and should not be performed; and their attitudes toward the criminal law, criminal procedures including departmental policies, the police and other criminal justice practitioners, criminal offenders, victims, and witnesses, even citizens as a whole (p. 89).

Many observers and scholars have pointed out the different characteristics of the police occupational culture. (Christensen & Crank, 2001; Crank, 1998; Farkas & Manning, 1997; Manning, 1989). Herbert (1998) viewed police as a social group, very differentiated from other groups, whose behavior is dictated by informal rules rather than formal ones. In fact, police officers create an insulated group that is focused on risk and masculinity (Herbert, 1998). Paoline (2004) has described police culture as characterized by an intense distrust and suspicion of the public, loyalty to the peer group and the “us-versus-them” towards other members of society.

Because of the influence of the police culture, some researchers have described police officers as authoritarian, cynical, dogmatic, and hostile (Britz, 1997; Chan, 1997),
while others have described officers as highly oriented to aggression, with clear
tendencies toward the use of coercion, brutality and illegitimate tactics in order to fulfill
their role of crime-fighters (Cochran & Bromley, 2003; Manning, 1995). To this extent,
officers become isolated from the public relying heavily on their peers as support. As
such officers “come to see themselves as the ‘thin blue line’ that prevents society for
slipping permanently into moral decay and unrest” (Cochran & Bromley, 2003, p. 90).

Police culture revolves around a code of silence (Crank, 1998; Quinn, 2005). The
code of silence is defined as a conglomerate of unwritten rules supported by all ranks in
the police organization (Crank, 1998). Its main function is to protect the members of the
police subculture preventing officers by discouraging exposing or even talking about
misconduct or unethical behavior of fellow officers (Crank, 1998; Quinn, 2005). More
importantly, the code of silence prevents officers from expressing emotions. Emotions
are seen as a sign of weakness and shows fellow officers that an individual is not ready to
fulfill his or her role as a crime-fighter in the streets (Crank, 1998). Officer support of the
code of silence is conducive to experiencing acute stress and using maladaptive
mechanisms to cope with that stress (Violanti, 2007).

Is the existence of a police subculture (as commonly characterized) a myth? The
prevalence of the police subculture among American police agencies has been questioned
by a few researchers who argue there is not empirical proof that the existence of a police
subculture is endemic to policing (Cochran & Bromley, 2003; Herbert, 1998; Manning,
concluded that adherence to the police subculture was a product of the style of policing of
individual officer. Thus, only one-sixth of their sample could be classified as “subcultural
adherents.” Paoline (2004) found that individual officers deal with the strains of police work in different manners. He found little evidence of the influence of a different set of norms and values (i.e. the traditional notion of a police subculture) on officers’ occupational attitudes. Thus, although police officers have their own set of occupational norms and values, the existence of a widespread, unique and restrictive police subculture has been challenged by some researchers and observers.

What is Stress?

Stress is a concept that is infrequently understood. Since stress means different things for different people, a clear definition of stress does not exist (Stranks, 2005). In lay terms, the term stress has a negative connotation, as it is commonly defined as something to be avoided, highly related with tension, strain, anxiety, or worry (Organ, 1977). When people talk about stress, they have their own conception of the term (Stranks, 2005). For instance, some individuals may consider jumping out of an airplane very scary and stressful, while others may regard it as fun and relaxing. As such, there is not a consensus on the nature and definition of stress among stress researchers and mental health professionals.

A pioneer of stress research, Hans Selye, defined stress as “the nonspecific response of the body to any demand” (Selye, 1976, p. 55). Selye, a reputable endocrinologist, studied the response of the body to certain hormones. Selye (1976) argued that hormones and chemicals create a nonspecific response in the body, which is manifested by certain actions such an increase on blood pressure and the release of adrenaline in the blood stream. Since Hans Seyle proposed this definition of stress in the 1950s, research on stress has advanced a long way. Richard S. Lazarus (1966),
considered one of the most influential contemporary stress researchers, argued that stress is a personal and unique experience for each individual. As the body tries to constantly adjust to different situations and environmental demands, strain is created and stress appears (Lazarus, 1966). Lazarus (1966) also introduced the concept that stress is not only a bodily reaction to certain internal and external events, but also a cognitive response to a perceived situation. As such, Lazarus and Folkman (1984) defined stress as “a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being” (p.19).

For the stress process to exist, certain elements have to be present and interact with each other. First, the individual and his or her way of uniquely perceiving situations, their personality and their resilience level. Second, a specific situation, which provides the framework for an individual to perceive the situation as stressful or not. Third, either external or internal stressors have to be present. Fourth, a reaction has to be generated by the individual to the perceived stress he or she is experiencing. Lastly, the strategies or methods the individual employs to deal with the stress and stressors (Cranwell-Ward & Abbey, 2005).

The way stress affects our body and cognitive responses is a complex process. Selye (1976) argued that an individual who experiences extended stress goes through three stages: alarm, resistance, and exhaustion, which constitute what Selye called General Adaptation Syndrome (Selye, 1976). The alarm stage can be explained as a short period of “high arousal of the sympathetic nervous system, readying the body for vigorous activity” (Stevens, 2005, p. 3). Through the alarm stage, the body secretes the
adrenal corticotropic hormone (ACTH), which triggers the adrenal glands to emit corticoids, such as adrenalin. Adrenalin excretion puts all body systems on high alert (Rosenbluh, 2005; Selye, 1976).

In the stage of resistance, the body reacts to the alarm stage with the “fight or flight” response (Rosenbluh, 2005; Selye, 1976). The fight or flight response is an innate genetic response that helps individuals to protect themselves of any dangers or threats. As a survival tool, the flow of adrenaline in the blood gives the body the strength necessary to flee or to fight off the threat (See Cannon, 1929). During this stage, all body mechanisms are activated to prepare for the proper response. As such, blood pressure rises, the heart speeds up, pupils dilate, sweat and saliva secretion increases (Rosenbluh, 2005; Selye, 1976).

When the likelihood of threat has decreased and resistance is no longer necessary, the body enters into the exhaustion stage. In this stage, the individual returns to the alarm stage. This process ultimately wears down the body, causing the “diseases of adaptation.” Some examples of diseases of adaptation are depression, heart disease, high blood pressure, angina, nightmares and headaches (Rosenbluh, 2005; Selye, 1976). Diseases of adaptation constitute the main negative effects of high levels of stress on individual’s lives.

Stress is a major health problem in America (Rosch, 1984). It is estimated that approximately 80% of Americans visit a doctor annually for symptoms related to stress (American Psychological Association, 2007). Stress prevalence in America is growing at dangerous rates. After conducting a survey of stress prevalence among the American population in 2008, the American Psychological Association reported that Americans are
increasingly complaining of more physical and psychological symptoms associated with stress such as fatigue, insomnia, anger, irritability, lack of interest, muscular tension, depression and headaches (American Psychological Association, 2008).

Occupational Stress

Occupational Stress has been defined as “the harmful physical and emotional response that occurs when there is a poor match between job demands and the capabilities, resources, or needs of the worker” (Levine, Pavlidis, MacBride, Zhu & Tsiamyrtzis, 2009, p. 359). Occupational stress is a common occurrence in any workplace and work environment and has been deemed very harmful for both organizations and employees (Rosch, 1984).

Stress is considered a reaction to a negative environmental stimulus (Kavitha, 2009). In the work environment, this reaction produces negative behavioral, physical and psychological effects on members of organizations. In most cases, occupational stress is the result of the disparity between challenges or stressors related to an occupation, and the individuals’ inability to cope. In other instances, occupational stress is the product of conflicting expectations, values, needs, and demands of the occupation (Kavitha, 2009). To this extent, individuals can perceive changes in work conditions and demands as threats. These perceptions may cause a psychological imbalance affecting an individual’s work performance and outlook (Kavitha, 2009).

Stress invariably produces strain (Kavitha, 2009). While individuals experience stress at the psychological level, strain is experienced at the physical level. Strain produces an array of physical problems on individuals and is highly related to absenteeism and lack of productivity. Levels of stress and strain need to be keep in
check. Kavitha (2009) argued that regardless of the occupation and status on the work organization, everyone experiences stress and strain. Some levels of work-related stress may be beneficial as they can be used as “stimulating” experiences. However, when work-related stress and strain levels are high and uncontrollable, efficiency and effectiveness is drastically reduced at the work place (Kavitha, 2009).

There are a multitude of factors that contribute to occupational stress. Rosch (1984) posited that some of the major sources of occupational stress are: (1) Lack of time to complete a job properly; (2) lack of clarity in regards to job description and organizational structure; (3) Lack of reward and recognition after good performance on the job; (4) Inability to criticize and discuss work problems; (5) Too many responsibilities but very few decision-making power; (6) Incapability to work with others in the organization due to differences in goals and values; (7) Job insecurity; (8) Lack of proper environmental work conditions due to noise, exposure to chemicals, crowding, etc.; (9) High levels of fear, uncertainty and doubt; and, (10) Inability to use personal skills and talents when performing a job (Rosch, 1984).

More and more Americans are pointing out that their major source of stress is their jobs (Conner & Douglas, 2005; Rosch, 1984). In 2008, more than 74% of surveyed Americans identified work as their main stressor (American Psychological Association, 2007). American workers have reported that the main sources of occupational stress are long hours, low salaries, heavy workload, lack of opportunities for advancement, and uncertain job expectations. To this extent, employees have claimed that their lack of productivity at work is due to stress (American Psychological Association, 2007). Workers are applying for and obtaining monetary compensation for stress related health
problems (Rosch, 1984). For instance, a state trooper was successful in a suit against the state for the stress experienced from deterioration of his sex life as he was on call for 24 hours and experienced anxiety waiting for the next call (Rosch, 1984).

Occupational Stress in Law Enforcement

Law enforcement has long been considered a particularly stressful job (Dantzker, 1987; Anshel, Robertson & Caputi, 1997; Gershon, Barocas, Canton, Li, & Vlahov, 2009; Collins & Gibbs, 2003; Kop & Euwema, 2001). Law enforcement officers are said to experience high levels of stress derived from organizational and personal variables (Anshel, 2000). These high levels of stress are conducive to physical and psychological diseases, high rates of PTSD, and suicide among law enforcement officers (Carlan & Nored, 2008; Gehrke & Violanti, 2006; Violanti, 2007).

The examination of such stressors and their effects in law enforcement officers has been the focus of research for many criminal justice scholars. However, it was a practitioner who pointed out stress that is one of the most important problem affecting police organizations. In the 1970s, Cincinnati’s police chief, Karl Goodin, conducted the first seminars dedicated exclusively to exploring police stress and its consequences (Waters & Ussery, 2007). Following these seminars, Kroes, Margolis and Hurrell (1974) conducted the first comprehensive study of work-related stress and its consequences on police officers using officers from the Cincinnati police department (N=100). Kroes et al. (1974) reported that danger, fear, citizens’ hostility and social isolation were stressors that officers experience in a regular basis. These stressors were directly linked to health issues among police officers.
Interestingly, Dr. George Kirkham, Professor Emeritus at the Florida State University College of Criminology & Criminal Justice, had a big influence on the attention that the academic world has given to police stress. In 1973, Kirkham decided to leave his professorship and become a police officer to study crime and policing first hand. He reported his experiences in a book, *Signal Zero*, in which he described the stress associated to police work and the need to acknowledge the men and women who choose policing as a profession (Kirkham, 1974).

After the publication of Kirkham’s book, and coinciding with Hans Seyle and other medical researchers further investigations on stress (See Seyle, 1965, 1970, 1976), police stress research expanded considerably during the late 1970s and 1980s and many criminal justice scholars (Anson & Bloom, 1988; Baxter, 1978; Dantzker, 1986; Stratton, 1978; Terry, 1981) took the endeavor of investigating the causes, nature, and incidence of police stress and stressors. By the 1990s, police stress was a phenomenon investigated by numerous scholars; turning their attention to proposing stress intervention programs for police officers, as well as evaluating the efficacy of stress management programs already in place (Bellarosa & Chen, 1997; Finn, 1997; Roger & Hudson, 1995). In the last decade, police stress research has become more specialized by pinpointing the specific sources of stress, organizational and personal variables (Carlan & Nored, 2008; Shane, 2010; Zhao, He, Lovrich & Cancino, 2003), and detailed studies on negative health outcomes on officers suffering high levels of stress (Yoo & Franke, 2010; Ramey, 2003). More importantly, the relationship between PTSD and officers’ exposure to critical events has been significantly developed (Darensburg, Andrew, Hartley, Burchfield, Fekedulegn & Violanti, 2006; Gehrke & Violanti, 2006). These findings have been used to develop
intervention strategies for officers with PTSD and have improved their daily professional and personal lives.

Organizational and Personal Stressors in Law Enforcement

Law enforcement personnel have their own set of occupational stressors. Particular stressors to policing have been classified in two groups: Organizational and personal (Anshel, 2000; Gershon et al., 2009; Gibson, Swatt & Jolicoeur, 2001). Organizational stressors are different aspects of the job that may cause stress to an individual in an organization (Griffin & Moorhead, 2010). Organizational stressors can be divided into four groups: Task demands, physical demands, role demands and interpersonal demands (Griffin & Moorhead, 2010).

Task demands are the organizational stressors related to the specific characteristics of a job that cause stress to an individual. By their specific demands, some occupations are more stressful than others. For instance, jobs such as a police officer, firefighter and air-traffic controller are said to be more demanding and stressful than other occupations. In addition, higher probabilities of getting hurt or injured at work is another task that may cause work-related stress. Hence, a female police officer has more chances of getting hurt when at work than a receptionist at a law firm. Lastly, overload is another task demand to consider while dealing with work-related stress. Overload can be quantitative—an individual has too many tasks to perform and too little time to do so—and qualitative, an individual believes he or she is not capable to perform the tasks assigned to him or her (Griffin & Moorhead, 2010).

Physical demands are organizational stressors related to the environment and physical conditions in which a job has to be performed. Working outside at extreme
temperatures, arduous labor, poor lighting, and work environment conditions are examples of physical demands (Griffin & Moorhead, 2010). For instance, extreme weather may cause stress to Alaskan police officers and Sheriff’s deputies.

Role demands are organizational stressors related to the specific role a person has to play in a determinate work environment. As people are expected to behave in a certain way within an organization, role expectations may be formal (i.e. unambiguous) and/or informal (i.e. implied and unspoken) (Griffin & Moorhead, 2010). Individuals understand role expectation in different degrees and manners. As such, role ambiguity and role conflict may appear as sources of stress. Role ambiguity emerges when there is not a clear understanding of the expectations of the organizations; it can be produced by poor instructions from a supervisor and imprecise job descriptions. Role conflict takes place when communications from others about the work role are unclear or contradictory (Griffin & Moorehead, 2010). For instance, role conflict may appear in a police organization when the expected role of an officer is unclear to the contradictory mandates of citizens’ expectations and the police culture.

Interpersonal demands are organizational stressors linked to group pressures, personality divergences, and leadership issues (Griffin & Moorehead, 2010). Group pressures may entitle the demands put forth to an individual to conform with the groups’ informal norms or to restrict the amount of output. As such, in police organizations, rookies may be pressured to follow the informal norms dictated by the police subculture. This pressure can easily result in stress. At the same time, personality divergences and/or conflict can also be a source of stress, creating an undesirable work environment. Lastly, styles of leadership may cause stress to employees. For example, if the leadership style of
a supervisor is not optimal for some individuals under his or her supervision, these individuals may suffer stress as a consequence (Griffin & Moorehead, 2010).

Previous studies have pointed out organizational stressors as the major source of stress for police officers (Abdollahi, 2002; Anshel, 2000; Stinchcomb, 2004). Organizational stressors include lack of administrative support, shift work, paperwork, lack of input on the organization and insufficient pay and opportunities for advancement (Anshel, 2000; Gibson et al., 2001; He, Zhao & Archbold, 2002; Kop, Euwema & Schaufeli, 1999; Lieberman et al., 2002; Pienaar & Rothman, 2006; Violanti & Aaron, 1995). Slate, Johnson and Colbert (2007) used a sample of 128 police officers to explore the connection between participation in the organization and stress levels. Slate et al. (2007) reported an inverse relationship between job satisfaction and stress levels controlling for participation in workplace decision making. That is, the more satisfied the officer is in his or her job, the less stress he or she will experience, and vice versa. Furthermore, officers that perceived the organization as unwilling to allow employee participation are more likely to experience stress.

Zhao et al. (2003) found a positive correlation between the bureaucratic nature of police organizations and officers’ stress. Interestingly, officers with a higher degree of autonomy in their decision-making processes experienced more depression, sensitivity and aggression. Thus, discretion and autonomy could be conducive to higher levels of anxiety as officers have to continually juggle departmental rules and regulations, as well as the pressure of making the “correct” decision.

Most recently, Shane (2010) investigated the effects of organizational stressors on police performance using a sample of 461 police officers from two police agencies in
Michigan and New Jersey. The findings of this study correlated with past research that indicated that organizational stressors greatly affect police levels of stress. Specifically, Shane (2010) reported a positive relationship between police stress and dealing with coworkers, supervisors and police administrators, as well as the bureaucratic nature of police organizations.

Personal and external stressors can cause stress and affect the work performance of an individual within an organization (Griffin & Moorhead, 2010). Stressors related to police work are unique and different from the general population (Anshel, 2000). As such, police officers deal with violence, danger, physical threat and unpredictability (Kop et al., 1999). By monitoring the heart rates of officers, Anderson, Litzenberger and Plecas (2002) found that officers exposed to critical incidents experienced a high level of stress after the incident throughout the shift. The results of this study showed that anticipatory stress (highly related to unpredictability) was the “most stressful acute stressor” (Anderson et al., 2002, p. 415).

The death of a partner and/or the killing of a person in the line of duty are two of the most acute stressors specifically linked to police work (He et al., 2002; Violanti & Aaron, 1995; Zhao et al., 2003). In addition, the continuous perception of being in danger is a severe personal stressor (Jaramillo, Nixon & Sams, 2005). Many times, the perceived risk of being in danger is more dangerous than the risk actual. Storch and Panzarella (1996) studied the relationship between police stress, job stressors (organizational and personal), career variables and personal variables using a sample of 79 officers from three police departments. One of the instruments used in this study was the State-Trait Anxiety inventory (Spielberger, Gorsuch, Lushene, Vagg & Jacobs, 1983), which measures
present anxiety (state anxiety) and anxiety related to the personality of the individual (trait anxiety). The authors found a significant relationship between anxiety and officers’ thoughts about possible injuries. That is, Storch and Panzarella (1996) indicated that “how often an officer thinks about the possibility of being injured while on duty was correlated with trait anxiety and with the number of injuries an officer had actually sustained…Also, among officers who think about injuries a lot, there are officers who have not been injured, but are inclined to worry nonetheless” (Storch & Panzarella, 1996, p. 106).

The feelings of vulnerability and lack of control over critical events can lead to higher levels of stress among police officers (Anshel et al., 1997; Carlier, Lamberts & Gerson, 2000). Carlier et al. (2000) found that officers who suffered PTSD as a result of a distressing incident were more likely to feel vulnerable and fearful for their lives during the that incident. Anshel et al. (1997) concluded that the traumatic shock of a distressing incident was increased when officers felt a lack of control and predictability over the event. Finally, personal and environmental stressors have been associated with personality changes on police officers. Carlan and Nored (2008) pointed out that the effects of personal stressors on officers may include “authoritarism, rigid beliefs, Type A personality, pessimism, introversion and self-confidence” (p.9). Type A personality is related to impatience, hostility, aggressiveness and competitiveness. Physically speaking, type A personality may result in hypertension, heart disease, acute stress and social isolation (Irvine, Lyle & Allon, 1982).
The Physical and Psychological Effects of Stress on Law Enforcement Officers

The negative effects of stress on police officers have been extensively documented (Aaron, 2000; Gershon et al., 2009; Hassell & Brandl, 2009; He et al., 2002; Lieberman et al., 2002; Morash, Harr, & Kwak, 2006). Police officers are prone to suffer serious physical illnesses such as coronary disease (Sparrow et al., 1983), high cholesterol (Söreson et al., 2000), chronic back pain (Gershon et al., 2002), diabetes (Sörenson et al., 2000), lack of sleep (Neylan et al., 2002) and stomach disorders (Lieberman et al., 2002).

Police officers are also at high risk of suffering cardiovascular diseases and have a higher rate of mortality due to heart disease when compared to the rest of the population (Calvert, Merling & Burnett, 1999; Franke, Collins & Hinz, 1998). Ramey (2003) investigated the relationship of stress, cardiovascular disease, and perceptions of health among male law enforcement officers compared to civilian men. She used a sample of 2,818 officers and 9,650 civilians. Ramey (2003) found that male law enforcement officers had significantly higher bad cholesterol levels, were more overweight, and used more tobacco products than males within the population sample. Among, law enforcement officers, stress was the biggest risk factor to suffer cardiovascular disease.

Using the same line of research, Yoo and Franke (2010) assessed the levels of stress and their relation to cardiovascular and other types of diseases in a sample of 65 female law enforcement officers in Iowa. Female officers’ stress scores were compared to those of 429 male law enforcement officers, while their cardiovascular data was compared to data obtained from a sample of 1,213 demographically similar females residents of Iowa. Yoo and Franke (2010) concluded that female officers suffer more job
stress and cardiovascular disease than their male counterparts. At the same time, female law enforcement officers suffered from higher levels of bad cholesterol, diabetes, obesity and cardiovascular disease than civilian females. High levels of stress were cited as an acute risk factor for all these illnesses.

Police officers seem to suffer high levels of cognitive deficiencies (Carlan & Nored, 2008), such as anxiety (Gershon et al., 2002); depression (Olson & Surrette, 2004); Post-Stress Traumatic Syndrome (Gershon et al., 2002); aggression (Kop et al., 1999), and suicide (Marzuk, Nock, Leon, Porlera & Tariff, 2002). Olson and Surrette (2004) concluded that symptoms of anxiety, stress or depression often overlap among officers experiencing personal strain at the job. Stress and depression have been shown to be highly correlated with one another (Olson & Surrette, 2004). Gershon et al. (2002) noted that officers with high levels of stress “were at an increased risk for a number of adverse health outcomes, especially depression, anxiety, burnout, somatization, and PTSS” (p. 284).

In a study of gender and age differences on levels of PTSD and depression among Buffalo police officers, Darensburg et al. (2006) reported that older officers seemed to experience less depression than younger officers. That is, officers with 15 years or more of service reported less depression than younger officers. Furthermore, 73 % of officers with 20 years of service or more and 50 years and older indicated a greater enjoyment of police work and a higher ability to cope with police-related stress. In regards to the relationship between gender and depression, Darensburg et al. (2006) noted that female officers described more feelings of depression than their male counterparts, as they have to manage both police and family roles. Older female officers seemed to suffer less
depression and cope better with the conflict that may occur between family life and police work.

_Suicide in Law Enforcement_

Suicide has become one of the main interests of recent epidemiology research as it is one of the leading causes of death in the United States (Hem, Berg & Ekeberg, 2001). In 2006, suicide was the eleventh highest cause of death in the United States, with 33,000 thousand deaths (Centers for Disease Control and Prevention, 2009). In the same period of time, suicide was the second main cause of death among individuals between the ages of 25 and 34. Among 15- to 24-year-olds, the third cause of death. Firearms were the most common method of committing suicide among males, while poisoning was the prefer method among females (Centers for Disease Control and Prevention, 2009).

Law enforcement officers are considered at a high risk of suicide (Darensburg et al., 2006; Violanti et al., 2009) to such an extent that it has been labeled an epidemic (Violanti, 1996). It is estimated that between 300 and 400 law enforcement officers commit suicide a year, compared to an average of 164 officers who are killed in the line of duty (Kelly & Martin, 2006). The suicide rate of the general population has been reported to be three times lower than that of law enforcement officers (Violanti, 1995, 2007). In a study comparing police suicide with those of firefighters and military personnel, Violanti (2009) reported that the rate of police suicides was four times higher than that of firefighters, but was lower than that of military personnel.

Suicidal behavior may be categorized as a consequence of acute psychological disorders (Rothman & Van Rensburg, 2002). Even though traumatic events, alcohol abuse, and PTSD symptomatology has been cited as predictors of police suicide, research
has shown that suicidal ideation may be most important predictor of police suicide (Violanti, 2004; Violanti et al., 2009). As officers are constantly exposed to traumatic and suicide events (either attempts or actual events), they are at higher risk of developing suicidal behavior through ideation (Violanti et al., 2009). Crosby and Sacks (2002) noted that individuals exposed to the suicide of another person may suffer from more suicide ideation and suicide attempts. Using a sample of South African police officers, Rothman & Van Rensburg (2002) found that suicide ideation was intrinsically related to traumatic events and their levels of coherence. They concluded that “police members who suffer from a medical condition (compared to those who did not report suffering from a medical condition) have a weaker sense of coherence, lower self-efficacy and a higher external locus of control” (Rothman & Van Rensburg, 2002, p. 46). In addition, police officers who abused alcohol reported lower job satisfaction and higher levels of suicide ideation (Rothman & Van Rensburg, 2002).

Depression and anxiety have been also correlated with suicide among law enforcement officers (Kroes, 1985, 1988; Violanti, 1996). In a study of police suicides among officers of the Royal Canadian Mounted Police (RMCP) between 1960 and 1983 (N=35), Loo (1986) reported that psychological distress in form of depression and anxiety was named as one of the leading causes of suicide among those police officers. McCafferty, McCafferty and McCafferty (1992) related work-related stress and depression to police suicide and found that officers suffering depression are at higher risk of suicide, more prone to suicide ideation and committing the final act.

Excessive anxiety is also a contributor to police suicide (Kroes, 1988). The constant dangers and risk of life that police officers experience is conducive to high
levels of anxiety. All humans have certain anxiety related to their own mortality. However, when loss of life is on risk every day, death-related anxiety vastly increases, anguishing the individual (Wenz, 1979). In a study of suicidal ideation and attempts among Norwegian police officers, Berg, Hem, Lau, Loeb and Ekeberg (2003) concluded that serious suicidal ideation was related to personal and family problems highly related to anxiety and depression among other factors.

Many researchers have tried to develop a typical profile of police suicide victims for future considerations (Aamodt & Stalnaker, 2001; McCafferty et al. 1992; Violanti, 1996, Violanti, Vena & Marshall, 1986). The majority of police suicide victims are male (Aamodt & Stalnaker, 2001), with high levels of stress (Paton & Violanti, 1996) and past legal and disciplinary problems (Aamodt & Stalnaker, 2001; Wagner & Brzeczek, 1983). Most police suicide victims ended their lives by using a gun (Aamodt & Stalnaker, 2001; Wagner & Brzeczek, 1983) and have notorious family or relationship problems (Violanti, 1996, Violanti et al., 1986).

Alcohol Abuse amongst Law Enforcement Officers

The negative effects of alcohol abuse in humans have been well-documented. Alcohol has been related to excessive aggression (Bushman & Cooper, 1990; Giancola; 2006), depression (Petrakis, Gonzalez, Rosenheck & Krystal, 2002), brain injuries (Oscar-Berman & Shagrin, 1997), liver and intestinal diseases (Dennison, Prevet & Affleck, 1980), and risky behaviors (Steele & Southwick, 1985).

Alcohol consumption among law enforcement officers has long been considered as endemic to the police subculture and as a male bonding phenomenon in a profession where male officers comprise 80% of the police force in the United States (Lindsay,
2008). Alcohol use among law enforcement officers has also been identified as a consequence of police-related stress (Beehr et al, 1995; Violanti, 1999; Violanti, Marshall & Howe, 1985). As such, research has shown that officers use alcohol to cope with stress (Anshel, 2000; Band & Manuele, 1987; Violanti et al., 1985).

The extent of alcohol abuse among law enforcement officers is unclear (Lindsay, 2008). Violanti (1999) reported that law enforcement officers consume twice as much alcohol than the general population. Kirschman (2006) agreed with Violanti’s estimation. In a study of alcohol consumption among Australian police officers, Richmond, Wodak, Kehoe, and Heather (1998) found that more than 40% of the officers in their sample consumed more than eight drinks daily. Interestingly, women officers admitted that their alcohol consumption was related to peer pressure and their desire to be accepted.

Lindsay (2008) collected data on alcohol consumption among Mississippi law enforcement officers. Using a sample of 663 officers, Lindsay (2008) noted that 19% of the officers in the sample drank excessive amounts of alcohol. However, the total rate of daily alcohol of law enforcement officers, when compared with the general population, was similar and even slightly inferior. Officers who showed hazardous alcohol consumption were “young, white, single officers who work during day shift” (Lindsay, 2008, p. 85).

Research has shown a clear link between alcohol consumption and occupational stress among law enforcement officers (Gherson et al., 2002; Kohan & O’Connor, 2002; Violanti, 1999). In some cases, alcohol serves as the only coping mechanism for police-related stress (Violanti et al., 1985). Violanti (1995) noted that alcohol abuse among officers may lead to intoxication while on duty, absenteeism, and traffic accidents.
Violanti (1995) also affirmed that alcohol abuse is a significant contributing factor in suicides among police officers. In a study on the relationship between alcohol abuse and suicides in the Chicago police department, Wagner and Brzeczek (as cited by Violanti, 1995) documented alcohol abuse in 60% of the police suicides they investigated.

The Incidence and Nature of Stress on Rural and Small-Town Law Enforcement Officers

Most of the research on police has been focused on urban police officers, while rural law enforcement officers have been virtually ignored by researchers and scholars (Bartol, Bergen, Volckens & Knoras, 1992; Crank & Caldero, 1991; Oliver, 2001b; Oliver & Meier, 2004; Scott, 2004). Some stressors that have been associated to rural and small-town policing included lack of funds for equipment and training, absence of backup in dangerous situations, isolation, too much familiarity with local residents, and the fact that officers do not ever have a “real” day off or are ever completely “off-duty” (Oliver & Meier, 2004; Sandy & Devine, 1978).

In their extensive investigation of stress among officers policing rural areas and small towns in America, Sandy and Devine (1978) found that rural law enforcement officers face four exclusive stressors. These are: security, social factors, working conditions and inactivity. Sandy and Devine (1978) argued that rural law enforcement officers face more stress than urban officers due to an insufficient number of officers on duty and geographical isolation. As there is not a guarantee that backup may arrive in time during critical situations, every call for service, or any traffic stop may be highly stressful for the officer (Oliver & Meier, 2004; Sandy & Devine, 1978).

In regards to the social factors named by Sandy and Devine (1978), the authors asserted that the lack of anonymity that rural and small-town officers experience might
increase stress levels. As such, while off duty, urban officers are able to easily blend into their communities avoiding any citizen scrutiny of their personal lives, rural and small-town officers close relationship with members of their communities do not have that “luxury” (Oliver & Meier, 2004; Sandy & Devine, 1978). In addition, Sandy and Devine (1978) argued that high familiarity with the members of the community might increase the stress levels of rural law enforcement officers, in the sense that there is a high chance that when responding to a call for service the officer likely knows the suspects, victims, and others involved in specific incidents.

Sandy and Devine (1978) stated that rural law enforcement officers’ working conditions might increase their levels of stress. Insufficient remuneration and lack of adequate equipment and training, as well as lack of opportunities for advancement may create a stressful work environment for the rural and small town officer. Finally, Sandy and Devine (1978) believed that long hours of inactivity while on-duty may be conducive to boredom, which simultaneously, may increase the level of stress of rural and small-town officers.

Oliver and Meier (2004) tested the four unique stress factors on rural law enforcement officers proposed by Sandy and Devine (1978), using a sample of 664 police officers in West Virginia. After questioning the participants about the first stress factor, security, Oliver and Meier (2004) found that officers and deputies showing higher levels of stress also reported feelings of isolation and longer waits for backup. To this extent, Sandy and Devine (1978) hypothesized that Sheriff deputies suffered more stress than officers of small municipalities’ due to the fact that they have to serve larger geographical areas. Oliver and Meier (2004) confirmed this hypothesis after analyzing their data.
In regard to the second stress factor proposed by Sandy and Devine (1978), social factors, Oliver and Meier (2004) found that officers and deputies do not find living in a small town and/or rural environment excessively stressful, when controlling for their calls for service where they may encounter friends, family, and associates. However, officers and deputies felt that they experienced more levels of stress than their friends.

After testing the working condition stress factor, Oliver and Meier (2004) found only one variable to be significant, the absence of stress training throughout their law enforcement career. Income, lack of resources, and stress training over the last 12 months were not significant. The last stress factor, inadequacy, demonstrated some support to Sandy and Devine (2002) hypothesis that boredom and inactivity may be conducive to feelings of uselessness and self-conflict. However, Oliver and Meier’s (2004) finding did not support this hypothesis.

One of the main criticisms of police stress research is that studies are mainly conducted in large metropolitan areas and findings are extrapolated to rural and small-town officers (Scott, 2004), when in fact, urban law enforcement officers and their rural counterparts have a different set of stressors particular to their style of policing and areas they serve.

Little is known about the specific stressors of rural law enforcement officers (Bartol et al., 1992; Oliver, 2001a). Scott (2004) tried to fill this gap in the literature by conducting a study using 11 rural and small-town Pennsylvania agencies, with a final sample of 135 officers. The majority of the participants were white males (92%), with an average age of 38-years-old and 12 years of experience. Most officers in the sample were married (75%) and had completed a college degree (46.7%).
Scott (2004) asked officers to measure their stress level on a scale from 0 (low stress) to 10 (high stress) in an instrument composed of 24 items. After using factor analysis, the 24 items were collapsed into five dimensions: Organizational scale, general work scale, work itself scale, danger scale, residency scale. The scales were found to be reliable, all having a Cronbach’s Alpha above .7. OLS regression was used by the author to investigate whether stress was mediated by perceived administrative changes and media criticisms. Demographical variables and department size were also included as control variables.

Scott (2004) reported that rural law enforcement officers are highly stressed and that public perceptions and media representations of rural and small-town officers portray an inappropriate picture of the realities of such officers. In regards to sources of stress, Scott’s (2004) findings indicated that organizational stressors and administrative changes were the major sources of stress of the participants. This finding supports previous research conducted in large metropolitan police agencies. Finally, Scott (2004) found that departmental size had a significant effect only in the organizational stress scale. That is, organizational stressors seemed to be more prominent on larger departments and relatively less pronounced in smaller departments (Scott, 2004).

In an earlier study, Bartol et al. (1992) examined the relationship between job performance, supervisory-perceived stress, and self-perceived stress on a sample of 30 female officers employed in 19 small-town departments in Vermont. The authors also used a sample of 30 male officers as a comparison group. The importance of this study revolved around its use of a sample of small-town female officers to investigate their obstacles in a male-dominated profession, their stressors, and the views of their
supervisors on their performance. However, it is important to note that the study’s small sample size limits its findings generalizability.

Bartol et al. (1992) reported that the “fishbowl effect” (constantly being scrutinized by citizens), the liberal attitude of the courts, dealing with prosecutors, lack of recognition for good work, lack of personnel and adequate retirement plans and the constant politics within the organization were specified as the most prominent stressors. In addition, the authors denoted that female officers reported more stress than their male counterparts as a result of a sense of accountability with the safety and lives of the citizens they serve. Female officers may be more caring and compassionate in their policing style when compared to male officers.

Oliver and Meier (2004) investigated stress levels among 100 conservation officers in West Virginia as an extension to their previous research on rural and small-town police stress. The participants were predominantly white males with an average age of 42, and 16 years of policing experience. Oliver and Meier (2004) found that certain demographical variables were associated with greater levels of stress. More specifically, single or divorced females with no college degree or military experience reported higher levels of stress. There was little evidence to support Sandy and Devine (1978) dimensions when applied to conservation officers. This research only found support in two dimensions: Security and social factors. However, these two dimensions were not correlated with stress. The authors hypothesized that conservation officers’ training and organizational culture prepares them to face isolation, security risks and other stressors in a better way than rural and small-town law enforcement officers.
Coping with Stress

Stress and stressors affect individuals in different manners (Bolger & Zuckerman, 1995). It is not surprising, then, that there is an extensive assortment of coping strategies to deal with stressors and stressful events. Coping strategies are usually defined by individual situations and perceptions. Thus, depending on the context and the event or stressor, an individual may avoid the problem all together, seek social support, or deal with the problem immediately (Smyth & Filipkowski, 2010).

In its simplest form, coping styles can be classified as avoidant and active (Smyth & Filipkowski, 2010). Individuals may choose to avoid a stressor or a situation completely, while others may take direct action to solve the problem or deal with the stressor. Avoidant styles of coping seem to work better with short-term stresses or stressors (Smyth & Filipkowski, 2010). However, those individuals who use avoidance as a coping strategy may later exhibit negative psychological responses related to the avoided situation. Active coping styles may cause a great deal of instantaneous anxiety and, if unsuccessful, may cause more distress than avoidance (Smyth & Filipkowski, 2010).

Coping with stress is not a simple task. In fact, coping with stressful situations is a complex mental process (Lazarus, 2006). This process has two main components: cognitive appraisal and coping (Folkman & Lazarus, 1980, 1985). Cognitive appraisal is the process in which an individual assesses whether a specific occurrence or encounter with the environment is significant to his or her welfare (Folkman, Lazarus, Dunkel-Schetter, DeLongis & Gruen, 1986). During the primary appraisal, the individual considers whether he or she has anything to be gained or lost in this specific encounter.
(e.g. is there any physical or psychological risk in this specific situation?). In secondary appraisal, the individual determines if there is anything that can be done to avoid or overcome injury or harm; he or she weighs the coping options. As such, various coping mechanisms are explored, such as transforming the situation, accepting it, or thinking about possible ways to deal with it (Folkman et al., 1986).

The second process, actual coping, can be defined as “the person’s constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the person’s resources” (Folkman et al., 1986, p. 993). Coping has two main functions. First, to normalize or adjust stressful feelings and, second, to modify the relationship between the person and the environment, which caused the distress (Folkman & Lazarus, 1985). Coping mechanism is used to deal with stressful situations and the environment; coping comprises numerous thoughts and actions to regulate emotional distress and solve the problem (Folkman et al., 1986). Previous studies on coping with stressful situations has shown that humans use both problem-focus coping (dealing with the problem that it is causing the emotional distress) and emotion-focused coping (regulating the emotional distress) (Folkman & Lazarus, 1980, 1985). Problem-focused practices of coping include rational and/or aggressive interpersonal efforts to solve the problem, and emotion-focused forms of coping may entitle seeking social support, escape-avoidance, distancing and accepting responsibility (Folkman, Lazarus, Gruen & DeLongis, 1986).

Law enforcement officers encounter numerous stressing situations as part of their daily operations (Waters & Ussery, 2007). Consequently, many studies have concentrated on police officers’ coping styles and mechanisms to deal with stress. There is a great
body of literature that indicates officers tend to deal with stress using one of two methods: adaptive and maladaptive coping strategies (Anshel, 2000; Beehr et al., 1995; Patterson, 2003). The goal of adaptive coping strategies is to reduce the negative effects of stress in a positive manner. Adaptive coping strategies include meditation, relaxation, religious activity, physical exercise and other similar activities as well as a strong social support (Beehr et al., 1995; Patterson, 2003).

Beehr et al. (1995) conducted a study to investigate stress coping strategies among 177 police officers and their spouses. The authors focused on four main methods of coping with stress: problem-focused coping, emotional-focused coping, rugged individualism, and religiosity. Problem-focused coping, activities directed to manage and improve the stressful situation, was found to be negatively related to stressors among police officers, especially those with “somatic complaints, emotional exhaustion, depersonalization, and thoughts of suicide” (Beehr et al., 1995, p.13). When an officer has to deal with assignment satisfaction, drinking, or stressful situations, problem-focused coping did not seem to have any positive effect. Emotion-focused coping, individual attempts to directly reduce the stress experienced, was related to every stressor in this study except for drinking, Emotion-focused coping seemed to have a stronger effect on stressors than problem-focusing stress. In regards to religiosity and rugged individualism, religiosity was not significantly related to any police stressors, while rugged individualism was positively related to the consumption of alcohol, “possibly reinforcing a macho police image” (Beehr et al., 1995, p.13). Furthermore, in their study of the relationship of religiosity and police stressors, Sigler and Thweatt (1997) found
that religiosity had a low value as a mediator. In many cases, religiosity could worsen stress among police officers.

The use of maladaptive coping strategies by law enforcement officers have been extensively documented (Band & Manuele, 1987; Burke, 1994; Plaxton-Hennings, 2004; Richmond et al., 1998). Many officers use maladaptive coping strategies to deal with the daily stress related to their occupation, by using alcohol, drugs emotional disconnection, cynicism, antisocial attitudes and high-risk behaviors (Beehr et al., 1995; Anshel, 2000; Band & Manuele, 1987; Violanti, et al., 1985).

Violanti et al. (1985) conducted the first comprehensive study on police stress and coping strategies, using a sample of 500 officers from 21 city and local police departments. The results of this study demonstrated that stress and alcohol use have a very strong relationship, while the relationship between cynicism, emotional dissonance, and stress was weak. However, the authors pointed out that as cynicism increases, so does alcohol consumption. Therefore, maladaptive coping strategies can aggravate and negatively mediate on other negative coping strategies.

Kohan and O’Connor (2002) examined the effects of job satisfaction, job stress and thoughts of quitting in terms of positive and negative effects of alcohol consumption, self-esteem and life satisfaction among 122 Canadian police officers. The authors found that job stress negatively affected the consumption of alcohol among officers aggravating officers’ life satisfaction and self-esteem.

Ortega, Brenner and Leather (2007) explored the relationship between demographic variables (gender, age, rank and tenure), personality, occupational stress, organizational commitment, job satisfaction and coping strategies. The results of this
study suggested that a direct relationship between coping strategies and personality type of the officer. For instance, officers with a neurotic-type personality were more prone to bad moods, complaints, escape and denial. In addition, those officers who showed insecurity and emotional distress would choose to ignore the stressors or complain about them. Conversely, a more positive approach of dealing with stressors, conscientiousness, was related to problem-solve approaches.

**The Relationship of Gender and Race with Levels of Police Stress**

Gender has been characterized as an important stressor in police work. As policing is a male-dominated profession (Dowler & Arai, 2008), female officers experience different organizational and personal stressors than their male counterparts. Research on stress levels on female officers has yielded different results. Some research studies have found that female officers experience more stress than male officers (Bartol et al., 1992; Jones & Fletcher, 1993; Wertsch, 1998; Wexler & Logan, 1983). Other research studies have found insignificant differences on stress levels between male and female officers (Haarr & Morash, 1999; Morash & Haarr, 1995; Taylor & Del Carmen, 2002). Brown, Fielding and Groover (1999) used a sample of 358 and 139 police constables in the United Kingdom to investigate the gender differences in relation to sources of occupational stress and its undesirable consequences. The authors reported that female officers are less likely to be exposed to situations with high potential for violence. However, when female officers are exposed to violent incidents, they are more likely to have more adverse reactions than male officers. In addition, female officers have higher levels of exposure to sex crimes, which significantly increases their associated
self-perceived stress. Finally, female officers reported higher rates of sex discrimination and chauvinism than their male counterparts.

Examining gender differences in the perception of stress and gender discrimination on a sample of 1,104 police officers, Dowler and Arai (2008) reported that male officers perceived that police administrators treat female officers more leniently, while female officers considered that police administrators held them to a higher standards of professional and personal conduct, and that gender-related jokes are a regular occurrence in their daily interactions with male officers. In addition, female officers reported higher levels of stress than male officers. Social support seemed to be a key variable to explain levels of stress of both male and female officers.

In a multidimensional study exploring the relationship between race, gender, and stress, He et al. (2005), found that policewomen suffer more stress than policemen. In addition, the authors reported that white male officers had higher levels of stress than black male officers and that black female officers did not have more stress that their white counterparts. Conversely, Morash et al. (2006) indicated that Black female officers seem to suffer the most acute work-related stress.

Research has shown that minority officers experience workplace difficulties differently than their white counterparts. In fact, racial dynamics in American society may indicate that organizational variables might have a negative impact on minority officers, creating a more work-stressed environment (Bolton, 2003; Dowler, 2005; Hassel & Brandl, 2009). To this extent, in a qualitative study of black officers’ work experiences in a southern state, Bolton (2003) reported that black officers perceived a lack of organizational support in their police agencies, which prevent their career development
and their authority when is undermined they hold supervisory positions. As a consequence, black officers reported a great level of stress derived from constant internal conflict with white officers and administrators. Morash and Harr (1995) found that minority officers recounted feelings of being ignored by white officers, resulted in higher levels of stress. In a study of race and police work in the Baltimore police department, Dowler (2005) described how black officers felt they were constantly criticized by their peers. However, they did not report to being more depressed or suffering more stress due to lack of social approval within their department.

Police Stress, Family and Personal Relationships

Stress exacerbates feelings of loneliness and isolation, which directly affects individual social relations and interactions. There is a body of literature indicating that social support drastically improves general well-being and the mental health of police officers (Kaufmann & Beehr, 1989; Gehrke & Violanti, 2006; Cullen, Lemming, Link & Wozniak, 1985). Social support has been linked with positive coping mechanisms. Thus, in order to reduce psychological and physical stress, some police officers seek the support and understanding of their family, friends, co-workers, and religious-based groups (He et al., 2002). However, it seems that only a small number of officers share their thoughts and feelings with those close to them. He et al., (2002) reported that when compared to women in the force, male officers do not seem to rely greatly on their faith, their spouses, friends to deal with work-related stress. Patterson (2003) hypothesized in his that social support would serve as a buffer to work stress. However, the results of his study showed that social support had a negative effect on officers’ levels of stress. On the contrary,
Cullen et al. (1985), using a sample of 91 police officers, found that supervisory and family support mitigated the adverse physical and psychological effects of stress.

Much of the past research on the connection between police stress and social support has concentrated on the spillover effect that police stress has on the personal family life of officers (Beehr et al., 1995; Maynard, Maynard, McCubbin & Shao, 1980; Roberts & Levenson, 2001; Story & Bradbury, 2004). Police culture and the “us against them” mentality weakens emotional bonds and encourages withdrawal from close interactions with family members, especially spouses (Story & Bradbury, 2004). When an officer suffers from work-related stress, negative interactions with their significant others supersede positive ones, creating an environment where affection and positive problem-behaviors do not have an important role in marital interactions (Story & Bradbury, 2004). In recent research, there has been an effort to investigate the link between police stress, physical exhaustion, and marital communication, Roberts & Levenson (2001) reported that work-related stress is more detrimental in marital interactions than physical exhaustion. The authors used a small all-male sample (N=19) and their spouses. On the days that officers suffered from high stress and physical exhaustion, they displayed high emotional negativity, and marital interactions were unconstructive. Interestingly, on these days, spouses tried to avoid any divergence with other officers to prevent an escalation of conflict between them and their husbands and to preserve their relationships. Story and Bradbury (2004) pointed out that as spouses become more disengaged and dissatisfied in their marriages, they intensified their feelings of isolation and emotional distress. Consequently, intimacy, affection and respect gradually disappear from the daily interactions as a couple. Furthermore, when the
responsibility of keeping the family unit together falls solely on officers’ wives, they have to multiply their efforts to promote family togetherness. That is, if the wife of an officer does not take the necessary steps to understand and unconditionally support her husband despite of the strain produced by his work-related stress the family unit would disintegrate creating more strain for the officer and his family (Maynard et al., 1980).

One of the most devastating consequences of the spillover of police stress into family life is divorce. One of the main reasons couples divorce during the first four years of their marriage is that couples “lack impulse control and anger management skills as well as the necessary communication and problem solving skills” (Picañol, 2009, p. 2). Evidently, when work related-stress is added to this equation, dissolution of marriage is the most likely outcome. Some authors reported that the rate of divorce among police officers doubles the general population rate (Lieberman et al., 2002), while others have reported that officers’ divorce rate is below the national average (McCoy & Aamodt, 2009).

Most researchers point to police culture and work-related stress as the main sources of conflict in officers’ marriages. One of the themes cited by researchers is the authoritarian attitude of some officers in their households. Indeed, when an officer tries to mimic his or her power and discretion in his or her house, conflict would occur as spouses expect equality in their marriages (Terrill, Paoline & Manning, 2003). As conflicts become a daily occurrence on officers’ marriages, officers seek fellow officers for advice and support (Picañol, 2009). Zhao et al. (2003) indicated that civilian couples have higher levels of anxiety than police couples. However, police couples showed higher levels of depression than civilian couples. In addition, Zhao et al. (2003) asserted
that marital status had a low impact on police stress when compared to other explanatory factors.

Theoretical Framework: Agnew’s General Strain Theory

Past literature on police stress has shown that officers are subjected to high levels of stress during the performance of their duties, and that this stress has many negative effects on the physical and psychological well-being of officers (Aaron, 2000; Gershon et al., 2009; Hassell & Brandl, 2009; Lieberman et al., 2002; He et al., 2002; Morash et al., 2006). As previously stated, police officers use both adaptive and maladaptive coping strategies to deal with their work-related stress. Many officers may respond with anger and frustration to their daily stress, especially when officers perceive that their exposure to stressors is unwarranted and/or undeserved (Agnew, 1985). Considering all these factors, General Strain Theory (Agnew 1985, 1992) provides a theoretical framework for gaining understanding of the prevalence and effects of stressors on police officers.

The roots of strain theory can be traced to the work of Emile Durkheim and his concept of anomie. According to Durkheim (1893), anomie can be defined as the breakdown of social and moral norms on society. This breakdown is conducive to many social problems, particularly deviance. Robert Merton (1938) used Durkheim’s concept of anomie to develop his own theory of structural strain with an emphasis on American Culture. According to Merton (1938), American society is in a constant state of anomie due to the over emphasis on monetary success and the lack of legitimate means available to achieve such success. As a consequence, it is the adaptations of members of society to the differential availability of goals and means that leads to high anomic levels and deviance.
Merton’s structural anomie theory was the basis for classic strain theories, which emphasized individuals’ adaptation to anomie in society. Hence, individuals and groups act in a certain way to compensate for personal circumstances and perceived social inadequacy. Many criminologists drew for Merton’s work to create their own structural strain theories (Cloward & Ohlin, 1960; Cohen, 1955). Classical strain theories remained popular until the 1970s, until they received heavy criticism from conflict theorists. Strain theories did not have much impact on criminology until the appearance of Robert’s Agnew (1985, 1992, 2006) General Strain Theory (Swatt, Gibson & Piquero, 2007).

General Strain Theory is based on a social-psychological approach, which focuses in the individual and his or her social environment (Agnew, 1985, 1992, 2006). Both differential association theory (See Sutherland, 1947) and social control theory (See Hirschi, 1969) proposed explanations of deviance based on social relationships of individuals. As such, differential association concentrated on positive social relationships with delinquent peers or family members, and social control theory focused on the absence of positive relationship with institutions and positive role models (Agnew, 1985, 1992, 2006). Although General Strain Theory adds to social control and social learning explanations of crime, it provides a different perspective on how individual’s social environments affect criminality. General Strain Theory stressed the importance of negative social relationships with others, in which the individual “is not treated as he or she wants to be treated” (Agnew, 1992, p. 48).

According to Agnew (1985, 1992), anger and related emotions resulting from negative relationships affect adolescents negatively pressuring them into delinquency. Thus, adolescents channel their frustration using illegitimate means to achieve the instant
gratification and goals, confront or flight the source of strain and/or using illicit drugs to cope with the strain. Anger and the inability to cope with strain are the primary sources of delinquency among youth (Agnew 1985, 1992).

Agnew’s strain theory revitalized explanations of strain for deviance, by addressing the shortcomings of past strain theories and concentrating solely on juvenile delinquency. One of the main criticisms to classic strain theories, was that it was unable to explain criminality among middle and upper class adolescents. To this extent, Agnew (1985, 1992) noted that youth do not strive for future, uncertain goals. Instead, they are focused on instant gratification and instant goals that will bring them, for example, popularity or acceptance among peers. Youths of all socio-economic classes strive for these instant goals and gratification. It is the failure of to achieving these immediate goals that causes criminality (Agnew, 1985, 1992).

The major types of strain

Agnew (1985, 1992, 2006) posited that avoidance of negative stimuli creates difficulties on creating and maintaining social relations. Thus, negative feelings will be experienced by an individual (such as anger, depression and anxiety) that ultimately motivate an individual to engage in deviant activities. Agnew (1992) identified three types of strain: 1) Failure to achieve positively valued goals; 2) Removal of positively stimuli; and, 3) Confrontation with negative stimuli. To Agnew, crime is a product of an increase of strain and anger (Agnew, 1992).

Earlier strain theorists (Cloward & Ohlin, 1960; Cohen, 1955; Merton, 1938) concentrated on the first type of stress formulated by Agnew (1992), failure to achieve positively valued goals. As American society values monetary and social success, many
individuals cannot achieve such goals through legitimate means. The disjunction between aspirations and goal achievement causes strain and increases the likelihood of deviance. In addition, Agnew (1985, 1992) argues that the disjunction between expectations and actual achievements can also cause strain. Expectations are based on the individual’s past experiences or in social models. If the actual achievements of a person are comparably inferior to others, a person may feel anger, resentment, disappointment, and dissatisfaction, which are feelings directly linked to strain. Furthermore, Agnew (1985, 1992) states that a disjunction between just/fair outcomes and actual outcomes also have a role on the creation of strain. That is, an individual may expect resources or outcomes be allocated in a fair manner. When the individual compare his or her own outcomes expected, justified ones and they are not equal, anger and resentment may surface, causing strain.

Strain can be also caused by removal of positively valued stimuli from the individual (Agnew, 1992). The loss of the valued stimuli may exhibit itself, for example, by the death of a loved one, the end of a romantic relationship, or the divorce/ separation of the individual’s parents. According to Agnew (1992), after the positively valued stimuli are removed from the individual, he or she may feel a great deal of strain. As a consequence, “the actual or anticipated loss of positively valued stimuli may lead to delinquency as the individual tries to prevent the loss of the positive stimuli, retrieve the lost stimuli or obtain substitute stimuli, seek revenge against those responsible for the loss, or manage the negative affect caused by the loss by taking illicit drugs” (Agnew, 1992, p. 57-58).
Lastly, strain can be caused by the inability of the individual to deal with noxious stimuli (Agnew, 1992). Examples of noxious stimuli are bullying, child abuse, poverty, criminal victimization, physical punishment and negative relations with parents. Noxious stimuli may be conducive to delinquency as the individual, in an attempt to avoid the negative stimuli and/or dismiss or lessen the negative stimuli, may seek revenge by targeting the source of the negative stimuli and/or may try to manage the strain resulted from noxious stimuli by using illicit drugs (Agnew, 1992).

*Adaptations to strain*

Deviance in not the only way individuals adapt to strain. Individuals also use various coping strategies. Behavioral, cognitive and emotional coping strategies are used to diminish the effects of strain on individuals (Agnew 1985, 1992, 2006). Cognitive coping strategies concentrate on rationalizing stressful situations to minimize their subjective adversity (Agnew, 1992). Cognitive coping takes three forms: First, ignoring or minimizing the importance of the adversity. Individuals minimize the strain suffered by reducing the absolute or relative importance of a determinate goal or value. For example, if an individual loses his or her job, he or she may cope with this situation by creating a new internal value that diminishes the job as an important part of the individual’s life. Second, maximizing positive outcomes and minimizing negative outcomes. That is, the individual tries to ignore and minimize an adverse event by conveniently lowering his or her standards, goals and expectations. Finally, an individual may accept responsibility for adversity. By convincing themselves that they deserve the adversity they have undergone, individuals minimize the impact of the effect of strain.
Behavioral cognitive coping strategies involve individual behaviors to diminish the negative effects of strain (Agnew 1985, 1992, 2006). These behaviors include maximizing positive outcomes and minimizing negative outcomes by avoiding and escaping the negative stimuli. For example, if an individual is being bullied in school, he or she may transfer to another school to avoid bullies or illegally skip classes and school grounds to avoid victimization (Agnew, 1992). In addition, an individual may act in a vengeful way. For instance, when someone has been bullied in school, that person may become a bully to deal with the strain suffered (Agnew, 1992).

Emotional coping strategies concentrate on removing the negative effects of strain through the use of physical exercise, meditation, deep-breathing techniques or other strategies (Agnew, 1992). By using emotional coping strategies, the individual tries to remove the negative effects of strain rather than trying to manipulate them like in the two previous forms of coping (Agnew, 1992).

Research on General Strain Theory

increase on delinquency when parents used physical punishment, were inconsistent in their demands, and punished in an intermittently manner. To this extent, parents’ inconsistent demands had the strongest effect on delinquency, while intermittence on punishment had the lowest effect.

Since his first published test of General Strain Theory in 1983, Agnew has been developing the General Strain Theory with a series of studies that have formalized his theoretical framework (See Agnew, 1985, 1989, 1992, 1999, 2001, 2002, 2006). However, other criminologists and researchers have noticed the value of Agnew’s theory to explain delinquency and its relationship with anger, anxiety, coping strategies and other criminal justice related variables (For recent research see for example Ganem, 2010; Hay, Meldrum & Mann, 2010; Moon, Morash, Perez-McCluskey & Hwang, 2009; Piquero & Sealock, 2010; Slocum, 2010).

Aseltine, Gore, and Gordon (2000) measured anger and anxiety as mediators of the strain-deviance correlation. Using three waves of data from Boston youth, the authors concluded that strain, in the form of conflict with family members and stressful life events, is positively correlated to delinquency. Anger and anxiety were mediators of strain as reflected in the aggressive and violent act scale employed by the authors. However, anger and anxiety could not be correlated to marijuana use, indicating that “General Strain Theory may not generalize to nonviolent forms of deviance” (Aseltine et al., 2000, p. 270).

More recently, Piquero and Sealock (2010) used General Strain Theory to explain the overrepresentation of minorities in the criminal justice system; especially blacks. Using a sample of 148 youths on probation, Piquero and Sealock (2010) employed
several scales to measure different constructs pertinent to the study. The strain scale measured the experiences of abuse of the participants. The negative affect scale was used to measure both depression and anger. The peer delinquency scale appraised the criminal involvement of the participants’ friends. The peer support and the family support scales assessed the bond strength between parents, family members, and the youth. The coping resources scale measured the cognitive, emotional, social, physical, and spiritual coping resources of the youth. Finally, the authors included demographical variables as control variables.

Although Agnew (2006) argued that minority youth have higher levels of strain, Piquero and Sealock (2010) did not find any empirical support for this assertion. In fact, white youth offenders in this sample showed considerably more strain, anger, and depression, while minority youth offenders reported significantly greater coping resources. In addition, minority youth offenders seemed to have better communication with their family that their white counterpart. Many researchers have focused their interest on coping strategies used as adaptation to strain as articulated by Agnew (See for example Brezina, 1996; Broidy, 2001; Capowich et al., 2001; Piquero & Sealock, 2010; Robertson, Stein and Schaefer-Rohleder, 2010). In a study of the delinquency as a coping response to acute strain, Brezina (1996) used the second and third waves of the Youth in Transition Survey, conducted in 1968 and 1969, comprising a total sample of approximately 3,685 youth. Brezina (1996) hypothesized that strain produces negative affect in the form of “feelings of anger, resentment, fear, and despair” (Brezina, 1996, p. 45), and that negative affect would be reduced by delinquent behaviors.
In light of Agnew’s (1992) argument that adolescents may use delinquency as a coping mechanism to deal with the social and emotional problems generated by negative social interactions, Brezina (1996) concluded that strain leads to anger, frustration, anxiety, and depression; and that delinquency is used to alleviate these negative feelings. As such, “delinquent behaviors enable adolescents to escape or avoid strain, compensate for the adverse effects of strain, and/or satisfy desires for retaliation and revenge” (Brezina, 1996, p. 57).

Expanding on the literature, Robertson et al. (2010), using an example of female juvenile offenders (N=261), investigated the roles of anger, anxiety, and maladaptive coping as mediators of the link between strain and three measures of delinquency: serious delinquency, minor delinquency, and continued involvement in the juvenile justice system. Levels of strain were measured by exposure to Hurricane Katrina and adverse life events.

Robertson et al. (2010) concluded that higher negative exposure to hurricane Katrina and other adverse life events were directly linked to delinquency. Anger, pre-Katrina juvenile justice involvement, and Katrina impact predicted serious delinquency. Conversely, minor delinquency was predicted by maladaptive coping and anxiety. Finally, maladaptive coping and pre-Katrina juvenile justice involvement predicted post-Katrina involvement on the juvenile justice involvement.

**General Strain Theory and policing**

Although the majority of research based on Agnew’s (1985, 1992, 2006) General Strain Theory has concentrated on juvenile delinquency, more contemporary studies have concentrated on the application of General Strain Theory to other deviant behaviors and
topics such as white-collar crime (Agnew, Piquero & Cullen, 2009), terrorism (Agnew, 2010), community violence (Warner & Fowler, 2003) and ethnic delinquency (Jennings, Piquero, Gover & Perez, 2009). However, little relevance has been given to General Strain Theory as a theoretical framework to explain the effects of strain on adult populations (Burton, Cullen, Evans & Dunaway, 1994).

An argument can be made that the principles of General Strain Theory can be applied to adult populations. Adults experience a great deal of strain and stressors in their daily lives and attempt to avoid pain and react to anger and frustration in similar methods to adolescents (Arter, 2008). Arter (2008) argued that adults have a sense of “finality” when dealing with adverse situations. That is, while juveniles tend to look for instant gratification and live in the moment, adults may see their present situation as indicative of the future. As such, an adult may feel more anger or frustration when facing an adverse situation as they may perceive that situation as permanent or irreversible. Considering all the aforementioned, Agnew’s General Strain Theory can be used as a theoretical framework to investigate the effects of such strain and the coping mechanisms to deal with it.

This is especially true for work-related strain, as the prevalence of occupational stress among the adult population in the United States is very prominent (Conner & Douglas, 2005; Rosch, 1984). Since law enforcement is one of the most stressful occupations in America (Anshel et al., 1997; Collins & Gibbs, 2003; Dantzker, 1987; Gershon et al., 2009; Kop & Euwema, 2001), General Strain Theory can be used to examine and explain the causes, nature of police stress, as well as the coping strategies used by law enforcement officers to deal with strain derived from their profession.
Work-related stress and strain can be seen as the lack of achievement of esteem needs (See Maslow 1943), or as the absence of psychological rewards in the workplace (See Seyle, 1974). Abraham Maslow (1943) put forward a theory of human motivation and needs in which the development and hierarchy of human needs were explained. Maslow (1943) argued that humans have five different sets of needs: physiological needs; safety needs; needs of love, affection and belongingness; needs of esteem; and, needs of self-actualization.

Physiological or biological needs are the basic needs that humans have such as food, water, oxygen, etc. These needs need to be met in order for humans to survive. After these needs are satisfied, the need for personal security becomes active. After physiological and safety needs are satisfied, humans tried to satisfy their needs for love, affection and belongingness. Humans do not want to be socially isolated and have the need to receive and give both affection and love to others. After only the aforementioned needs are satisfied, the needs for esteem become activated. These consist on feelings of self-respect and respect for others. Maslow (1943) described these needs as

All people in our society (with a few pathological exceptions) have a need or desire for a stable, firmly based, (usually) high evaluation of themselves, for self-respect, or self-esteem, and for the esteem of others. By firmly based self-esteem, we mean that which is soundly based upon real capacity, achievement and respect from others. These needs may be classified into two subsidiary sets. These are, first, the desire for strength, for achievement, for adequacy, for confidence in the face of the world, and for independence and freedom. Secondly, we have what we may call the desire for reputation or prestige (defining it as respect or esteem from other people), recognition, attention, importance or appreciation (p. 382).

To Maslow (1943), the fulfillment of self-esteem needs leads to feelings of adequacy, self-confidence and worth, while the lack of these feelings will lead to feelings of helplessness, inferiority and weakness. The later feelings will be conducive to neurotic
trends and discouragement. After only all the aforementioned needs have been satisfied, can individuals meet the needs of self-actualization. That is, individuals need to become what he or she is supposed to be, for example, an artist needs to be paint and an actor needs to act.

Occupational stress can be related to the unfulfillment of self-esteem needs. As occupational stress is highly associated to dissatisfaction with work conditions, work peers and relations to management (Crandall & Perrewe, 1995), an argument can be made that many individuals cannot fulfill their needs for respect, adequacy and esteem from others. Therefore, strain may be created as a consequence of the failure to attain self-esteem needs in the workplace. Law enforcement officers are not exempt of these negative feelings related to the lack of respect, adequacy and esteem from others as the perceptions of citizens, media, and other social forces on their role in society are usually negative (Frank, Smith & Novak, 2005; Weitzer & Tuch, 2005; Williams & Nofziger, 2003).

The lack of psychological rewards may be another source of strain in law enforcement. Seyle (1974) argued that all humans seek out acknowledgement, respect, and other psychological rewards from the workplace. If individuals are prevented from obtaining psychological rewards at the workplace or these psychological rewards have already been achieved, they may suffer a great deal of strain in occupational settings (Seyle, 1974). Seyle's (1974) contentions can be directly applied to both police stress and Agnew’s (1992) General Strain Theory. Agnew (1992) identified three types of strain: 1) Failure to achieve positively valued goals; 2) Removal of positively stimuli; and, 3) Confrontation with negative stimuli. If psychological rewards (valued goals) are
prevented, removed or a negative stimuli is introduced (e.g. constant exposure to violence), police officers may suffer a great deal of strain and they can react to this strain with anger and frustration, as described by Agnew (1992), and maladaptive coping strategies.

Law enforcement officers are exposed to a great deal of strain and an extensive assortment of stressors consistent with General Strain Theory’s principles (Arter, 2008). Relating General Strain Theory’s principles to police stress may provide a valuable understanding of this phenomenon and can help officers, administrators and families to prevent and deal stress related to the law enforcement profession.

**Police stress research and General Strain Theory**

Although Agnew’s (1985, 1992, 2006) General Strain Theory has been widely tested, few studies have used General Strain Theory as a theoretical framework to explain police stress (Swatt et al., 2007). Gibson et al. (2001) used a sample of 596 male police officers from Baltimore, Maryland to explore the relationship of police stress, coping, strain, negative emotions, and domestic violence. Gibson et al. (2001) found that officer’s strain was indirectly linked to domestic violence through the negative mediating effects of depression and anger. Although social support and spirituality did not have any direct effect on domestic violence, social support had an important role in decreasing the negative effects of strain on police officers.

Swatt et al. (2007) argued that emotional coping strategies can be negative (e.g. use of drugs) or positive (e.g. meditation) and that an individual can engage in multiple coping strategies. Simultaneously, they investigated the link between police officer stress and negative coping strategies using Agnew’s General Strain Theory as a plausible
theoretical perspective to explain this relationship. The authors reported that their results indicated that strain is correlated with negative emotions and as well as alcohol consumption among police officers. The use of alcohol as a maladaptive coping strategy was mediated through anxiety and/or depression.

Arter (2008) tested Agnew’s General Strain Theory using a sample of police officers on undercover assignments. Arter (2008) reported that undercover officers accounted for the highest levels of work-related stress and, as a response, deviance. Consistent to Agnew’s (1985, 1992) assertions, anger and frustration among officers where associated with higher levels of stress. Lastly, officers that perceived strain as unjust and higher in magnitude responded with higher levels of deviance (Arter, 2008).
CHAPTER III

METHODOLOGY

There were four purposes for this study. First, it examined how work-related stress affects the levels of perceived stress, anxiety and depression for rural law enforcement officers. Second, it explored the specific stressors affecting rural law enforcement officers. Third, it investigated how rural law enforcement officers cope with work-related stress; and, (4) it studied how individual officers’ demographic characteristics affect their levels of perceived stress, as well as their coping styles.

This chapter is divided into three sections: research design, analyses and assumptions in this study. The quantitative and non-experimental nature of the study, sample, participants, survey design, instrumentation, the variables on the study, and data collection procedures will be explained in the research design section. Additionally, the research questions, objectives and hypotheses will be presented along with the statistical procedures within the analyses section. Lastly, the assumptions of the study and a brief summary will conclude this chapter.

Research Design

The present study employed an exploratory method, which can be conducted through quantitative, qualitative or mixed methods approach (Creswell, 2003). This study will employ a quantitative methods approach.

Quantitative Approach

Quantitative research was established from the traditional scientific method, and generates numerical data to establish relationships between two or more variables. This is determined through statistical methods that test the strength and significance of the
relationships between the variables in the analysis (Creswell, 2003; Hagan, 2006; Maxfield & Babbie, 2008). In addition, a quantitative research allows the researcher to collect a larger sample size, which will increase the statistical power and generalizability of the study (Hagan, 2006; Maxfield & Babbie, 2008).

**Non-Experimental Approach**

A nonexperimental, ex-post facto design was employed for the purposes of this study. In nonexperimental studies, the emphasis is on the relationship between variables. One of the main disadvantages of nonexperimental studies is lack of explanatory power in establishing cause and effect of a phenomenon, as one cannot control for outside factors (Salkind, 2003). Additionally, the present study is cross-sectional, and thus only captures one moment in time. Regardless of the lack of explanatory power, nonexperimental studies have a very important role in social science research (Mertler & Charles, 2010).

**Sample**

The target population for this study was all municipal police agencies and sheriff’s offices in a Southern state that (1) reported crime data to the Federal Bureau of Investigations (F.B.I) in 2009 (published later in the U.C.R) and (2) served populations with less than 50,000 residents. The Uniform Crime Report in 2009 was used to identify these agencies. A stratified random sample was then selected to include 27 municipalities and 20 counties. The final sample consisted of 21 rural law enforcement agencies.

**Participants**

The main purpose of this study was to investigate the perceived levels of stress, as well as the most prominent stressors affecting law enforcement officers serving small
towns and rural communities in the state selected. Moreover, this study sought to identify how these officers cope with stress and stressors afforded by their profession.

A convenience sample of municipal officers and sheriff’s deputies policing towns and counties with less than 50,000 residents was used. As manpower in such departments is limited, this study did not concentrate on the specific demographics within each department. Thus, every officer in the agencies included in the sample was welcomed to participate in this study. The final number of participants was 320 rural law enforcement officers.

Survey Design

Due to time, monetary constraints and geographical considerations, a self-administered mail survey was used in this study to investigate the perceived levels of stress of law enforcement officers serving rural communities and small-towns in a Southern state. Mail surveys are a very popular tool within criminal justice research for its affordability and ability to capture large samples (See for example Blumstein & Cohen, 1980; Johnson, 2009; Warr, 1985).

Survey research is commonly used in quantitative methods as a tool for primary data gathering (Hagan, 2006). A survey design allows the researcher to obtain a “quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of population. From sample results, the researcher generalizes or makes claims about the population” (Creswell, 2003. p. 153). Survey instruments are a powerful tool to obtain data to be used on descriptive and/or inferential studies, as well as addressing references to causality (Hagan, 2006; Maxwell & Babbie, 2008). There are two main types of survey instruments: questionnaires and interviews. Questionnaires are
generally paper-and-pencil instruments given to the respondent for completion. Conversely, interviews are completed by the interviewer and questions are generally somewhat contingent on the responses of the participant (Hagan, 2006; Maxwell & Babbie, 2008).

The most common distribution of surveys is mailed surveys, which are self-administered and include both a stamped and addressed envelope for returning in order for the participant to return the questionnaire (Dillman, 1991; Hagan, 2006). Mail surveys have several advantages. First, mail surveys can be distributed with reasonable cost, effort and time, while affording a large geographical area (Dillman, 1991; Hagan, 2006). Second, procedures for mail surveys are considered very simple in nature, eliminate interview bias effect, and also give a great deal of privacy (Dillman, 1991; Hagan, 2006).

The main disadvantage of mail surveys is the prevalence of nonresponse (Hagan, 2006), which results in low response rates of low response rates. Small samples decrease statistical power and limit employable techniques for statistical analysis. More importantly, low response rates can negatively affect the generalizability of the collected data because of nonresponse bias (Rogelberg & Stanton, 2007).

Instrument

An adaptation of the Law Enforcement Work-Assessment (LEWA) Survey, developed by Dr. Yolanda Scott in 2004, was selected for use in this research study. This instrument was selected because its specific design aims to measure known-stressors that affect rural law enforcement officers. Some of the measurements developed by Scott (2004) were not used in this study. Moreover, minor modifications also were made in
some instances. This study will also use an adaptation of one of the scales developed by Oliver and Meier (2004) to measure physical and psychological manifestations of stress.

**Dependent Variables**

A dependent variable is that which the researcher is attempting to explain. For the purpose of this study, two dependent variables were used. First, levels of perceived stress by law enforcement officers serving small towns and rural areas, was measured by asking participants how they would rate the stress inherent within their job on a scale from 0= “No Stress” to 10= ”High Stress.”

The second dependent variable, stress coping styles, will be measured on a scale ranging from 0= ”Strongly Disagree” to 10= ”Strongly Agree.” for each of the 15 measurements. These measurements include items such as exercise, church attendance, drinking alcohol, taking drugs and medication.

**Independent variables**

*The strain/stress scale.* This 27-item scale measures officers’ sources of stress using a Likert scale from 0= ”No Stress” to 10= ”High Stress.” The strain/stress scale assesses general stressors of policing such as “internal departmental politics,” “experiencing violence,” or “work schedule.” In addition, the strain/stress scale evaluates stressors that are identified as being unique to policing small towns and rural areas. For instance, “coming into conflict with a well-known community member,” “time/distance for back-up to arrive,” “pulling over/arresting or citing someone you know (relative)” and “pulling over/arresting or citing someone you know (friend).” The reported Cronbach’s Alpha ranged from .76 to .84 (Scott, 2004).
The stress manifestation scale. This 12-item scale was developed by Oliver and Meier (2004). This scale measures physical (i.e. physical manifestations of stress such as sleeping problems or excessive tiredness) and psychological (i.e. anxiety and depression) outcomes of stress on law enforcement officers. The stress manifestation scale will be use a Likert scale from 0=”Almost Never” to 10=”Most of the time.” Oliver and Meier (2004) did not report Cronbach’s Alpha values for this scale. Therefore, an exploratory factor analysis will be conducted to determine the validity of these items as one scale. Additionally, Cronbach’s Alpha will be used to determine reliability.

The officers’ communication scale. This scale is composed of nine items following a Likert scale from 0=”Strongly Disagree” to 10=”Strongly Agree.” This scale asks officers to whom they usually discuss work-related concerns or problems. Spouses, supervisors, partners, other officers, friends, children, physicians, counselors, or no one are included in this scale. Scott (2004) did not report Cronbach’s Alpha values for this scale. Therefore, an exploratory factor analysis will be conducted to determine the validity of these items as one scale. Additionally, Cronbach’s Alpha will be run to determine reliability.

Demographics. In this part of the survey, officers will be asked to provide their age, educational level, gender, marital status, race/ethnicity, years on the job, and official job classification.

Data Collection

After approval was secured from the University of Southern Mississippi Institutional Review Board (see Appendix A), a recruitment letter was mailed to the administrator in each municipal police department or sheriffs’ office. The letter explained
the nature and importance of the study, the data collection procedure, and emphasized voluntarily participation and anonymity. Furthermore, the letter request permission to administer the adapted Law Enforcement Work-Assessment (LEWA) Survey to officers employed in their agency (see Appendix B).

When permission from the administrator was granted, complete packages will be mailed to each department. These packages will include (1) a cover letter, (2) the adapted Law Enforcement Work-Assessment (LEWA) Survey, and (3) a pre-addressed stamped envelope for the return of the survey. In some instances where the geographical location of the police agency is convenient, the researcher will personally deliver packages to encourage participation.

Analyses

Research questions

Based on the research and theory contained in the literature, seven research questions were developed in relation to rural and small-town police officers and sheriff’s deputies’ experiences with stress. These are:

(1) What are the levels of perceived stress among rural law enforcement officers?
(2) What are the main stressors affecting rural law enforcement officers?
(3) How do rural law enforcement officers cope with stress?
(4) Is there a relationship between individual demographic characteristics of rural law enforcement officers and their perceived levels of stress?
(5) Is there a relationship between individual demographic characteristics of rural law enforcement officers and social coping mechanisms?
(6) Is there a relationship between individual demographic characteristics of rural law enforcement officers and isolative coping mechanisms?
(7) Is there a relationship between individual demographic characteristics of rural law enforcement officers and their perceived levels of anxiety and depression?

Hypotheses

Based on the research questions, the following hypotheses were formulated:

Hypothesis 1: Rural law enforcement stressors are significantly positively related to perceptions of stress by rural law enforcement officers.

Hypothesis 2: There is a positive relationship between levels of anxiety and depression and reported levels of perceived stress.

Hypothesis 3: There is a positive relationship between rural law enforcement officers’ demographic characteristics and reported levels of perceived stress.

Hypothesis 4: There is a positive relationship between rural law enforcement officers’ coping styles and reported levels of perceived stress.

Hypothesis 5: There is a positive relationship between rural law enforcement officers’ stressors and their coping styles.

Hypothesis 6: There is a positive relationship between rural law enforcement officers’ levels of stress and their coping styles.

Hypothesis 7: There is a positive relationship between rural law enforcement officers’ demographic characteristics and their coping styles.

Statistical Procedure

Once data was collected, imputed and screened, principle component factor analysis with a varimax rotation was used to confirm the dimensions of each scale. Once
these have been confirmed, Cronbach’s Alpha was conducted to determine the reliability of each scale. Cronbach’s Alpha is a test that represents the average value of the reliability coefficients one would obtain for all possible combinations of items when split into two half-tests (Gliem & Gliem, 2003, p. 84). When using Likert-type scales, it is necessary to compute and report Cronbach’s Alpha coefficient value to determine internal reliability of such scales (Gliem & Gliem, 2003).

**Univariate Statistics**

For all the variables measured on an interval or ratio level, descriptive statistics were run to determine the mean, range and standard deviation. This allowed the analyst to observe what underlying issues may be present in the data. It is also imperative to note that all Likert scale variables were treated as interval, as the distance between the values was approximately equal. For all categorical variables, frequencies, percentages and cumulative percentages were examined.

**Bivariate Statistics**

As an *a priori* test, correlation matrices were conducted for two purposes: to determine what independent variables have significant relationships with the dependent variables, as well as to examine the relationship between all of all independent variables as any strong relationship between two independent variables (.7 or above) indicates issues with multicollinearity (Hair, Black, Babin, Anderson & Tatham, 2006).

**Multivariate Statistics**

Multiple regression analysis is a statistical technique that is used to examine the relationship between a dependent or criterion variable and an independent variable when accounting for all other independent variables in the model (Hair et al., 2006). For the
purpose of this study, three stepwise OLS regression models were run to examine the relationship and/or impact of each independent variable on the two dependent variables (perceived levels of stress/strain and coping styles) when controlling for all other independent variables included in each model.

Assumptions of the Study

The following assumptions are made:

1. Police administrators are interested in the mental health of their employees and will encourage officers to participate in the survey.

2. A high response is expected as police stress is a main topic of concern for all law enforcement officers.

3. Law enforcement officers will respond to the survey instrument in a truthful manner.

Summary

The current study was conducted in an attempt to explain levels of stress and coping styles of law enforcement officers serving towns and counties with less than 50,000 residents in the state chosen. Three OLS regression models were conducted to determine if the three dependent variables, stress levels, social and isolative coping, can be explained from an array of independent variables. Data was collected by the use of a paper-based self-report survey questionnaire. An initial random sample of 27 municipalities and 27 counties with less than 50,000 residents was selected. The final sample consisted of 21 police agencies and 320 respondents.
CHAPTER IV
ANALYSIS

Introduction

The purpose of this quantitative, exploratory study was to investigate the perceived levels of stress and coping styles of law enforcement officers serving rural areas and small towns in the state of Mississippi. A modified version of the Law Enforcement Work-Assessment (LEWA) survey (Scott, 2004) was used in order to collect data. From the initial 48 agencies contacted (24 municipal agencies and 24 sheriff’s departments), 21 gave permission to distribute the survey instrument by mail among their officers. Of the 351 returned surveys, 320 were deemed usable.

The collected data were analyzed to examine the influence of latent explanatory variables and the demographic variables on perceived levels of stress and coping styles among law enforcement officers serving rural areas and small towns in the state of Mississippi. The analysis of the data was as follows:

1. A Confirmatory Factor Analysis with a varimax rotation was conducted to determine the dimensions of each scale.

2. The descriptive analyses examined the mean, range and standard deviation for all the variables measured on an interval or ratio level. For those variables measured at the ordinal and nominal levels, frequencies were run and reported.

3. The correlation analysis was presented in order to determine what independent variables have significant relationships with the dependent variables, as well as to examine the relationship between all of all independent variables, as any
strong relationship between two independent variables may confirm the existence of multicollinearity among variables.

(4) One OLS regression model was conducted to determine if one of the three dependent variable, perceived level of stress, can be explained from an array of independent variables.

(5) A second OLS regression model was conducted to determine if one of the three dependent variable, social coping, can be explained from an array of independent variables.

(6) A final OLS regression model was conducted to establish if the dependent variable, isolative coping, can be explained from an array of independent variables.

The results of the statistical analysis and the research findings are presented in this chapter. First, the demographic characteristics are outlined, and the distribution of the sample explained. Then a detailed description of the factor analysis procedures and results is presented. Furthermore, an explanation of the bivariate statistics is introduced examining the collinearity among variables. Finally, the three models produced by the multivariate regression analysis are presented and explained in detail.

The survey provided the opportunity to offer comments, but 44 participants accepted the invitation. Written comments were analyzed using a qualitative approach. This portion of the analysis sought to provide the reader with a deeper qualitative understanding of the issues that rural law enforcement officers experience; specifically, issues related to work-related stress. Therefore, only comments pertinent to the variables included in this study were included.
Demographic Characteristics of Participants

Using the software Statistical Package for Social Sciences (SPSS, Version 17.0), descriptive statistics were compiled to obtain the demographic characteristics of the participants in this study. These demographic characteristics included age, education, years in law enforcement, gender, marital status and race. The sample included 320 municipal police officers and sheriff deputies from 21 agencies in the state of Mississippi. This group of law enforcement officers consisted of 293 males (91.6%) and 27 females (8.4%) (see Table 3). In 2009, the F.B.I estimated that 11.9% of all full-time law enforcement officers in the United States were females. At the same time, in jurisdictions with less than 25,000 residents, females represented 7.8% of the total number of law enforcement officers. Thus, the rate of females in this sample (8.4%) can be considered representative of those female officers and deputies who serve small towns and rural areas nationwide.

Past literature has demonstrated significant correlations between educational levels, perceived levels of stress, and actual stressors among law enforcement officers (Brooks & Piquero, 1998; Zhao et al., 2002). As such, participants in this study were asked to indicate their level of education. The participants’ levels of education ranged from high school or GED to master’s degree or higher. The great majority of the officers in this study reported having less than two years of college (69.7%), with nearly half of them possessing no college credit at all. Moreover, only a fraction (1.6%) of these with college exposure earned a master’s or higher (see table 3).

Family and peer support have been identified as predictors of perceived stress levels among law enforcement officers (Hughes, Galinsky & Morris, 1992; Zhao et al.,
As such, participants were asked to indicate their relationship status. A large group in the sample, 216 officers, indicated that they were married (67.5%), while only nine officers indicated that they were separated (2.8%). See Table 3 for more details.

Past research has shown that belonging to a certain race or ethnic group may impact the levels of perceived stress (He et al., 2005). To this extent, participants in this study were asked to identify their racial background. The vast majority of the officers in the sample, 237 officers, were white (74.1%), while there was only one mulatto (.3%). Furthermore, only one participant identified him or herself as “other” without specifying the actual racial background (see Table 3).

Finally, participants were asked to record their age and years of service while filling out the survey. The respondents’ ages ranged from 21 years to 64 years. The mean age of the sample was 39.8 years (SD = 9.89). The mean years served among participants was 13.05 years (SD = 10.9), ranging from less than one year to 39 years.

Table 3

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>293</td>
<td>91.6</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>27</td>
<td>8.4</td>
</tr>
<tr>
<td>Education</td>
<td>High School or G.E.D</td>
<td>96</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Less than two years of college</td>
<td>127</td>
<td>39.7</td>
</tr>
<tr>
<td></td>
<td>Associate’s Degree</td>
<td>52</td>
<td>16.2</td>
</tr>
</tbody>
</table>
Table 3 (continued).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor’s Degree</td>
<td></td>
<td>40</td>
<td>12.5</td>
</tr>
<tr>
<td>Master’s Degree or Higher</td>
<td></td>
<td>5</td>
<td>1.6</td>
</tr>
</tbody>
</table>

**Marital Status**

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>216</td>
<td>67.5</td>
</tr>
<tr>
<td>Single</td>
<td>21</td>
<td>6.6</td>
</tr>
<tr>
<td>Separated</td>
<td>9</td>
<td>2.8</td>
</tr>
<tr>
<td>Divorced</td>
<td>37</td>
<td>11.6</td>
</tr>
<tr>
<td>In a Relationship</td>
<td>37</td>
<td>11.6</td>
</tr>
</tbody>
</table>

**Race**

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>237</td>
<td>74.1</td>
</tr>
<tr>
<td>Black</td>
<td>71</td>
<td>22.2</td>
</tr>
<tr>
<td>Native-American</td>
<td>5</td>
<td>1.6</td>
</tr>
<tr>
<td>Latino</td>
<td>3</td>
<td>0.9</td>
</tr>
<tr>
<td>Other races</td>
<td>5</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Note. N = 320

Factor Analysis

Factor analysis is an interdependent quantitative technique used within multivariate analysis that seeks to represent the interrelationships among a set of continuous measured variables by a number of underlying, independent variables (Hair et al., 2006). Thus, one of the main goals of factor analysis is to determine a possible underlying pattern of relationships, so that the data may be reordered and reduced to a
smaller set of factors (Kachigan, 1991). Factor analyses are performed by examining the pattern of correlations between the observed measures for the items included within the analysis. Items (variables) that are highly correlated (either positively or negatively) are likely influenced by the same factors, while those that are relatively uncorrelated are likely influenced by different factors. A technique to examine “interdependence,” factor analysis does not require the analyst to specify independent nor dependent variables. Factor analysis also accommodates multiple metric or non-metric (dummy-coded) variables (Hair et al., 2006).

Researchers in the social sciences and other fields use factor analysis as a reliable data-reduction technique. Methods to conduct factor analysis are commonly classified as either exploratory factor analysis (EFA) or confirmatory factor analysis (CFA). Exploratory factor analysis is a statistical technique that allows a researcher, who does not know the number of factors necessary to explain the interrelationships among a set of variables, to explore the underlying measurements of a determined construct (Pett, Lackey & Sullivan, 2003). Furthermore, when using EFA, researchers explore the loadings of the different variables in order to achieve the best model possible. This usually is attained by putting variables together in a model where it is anticipated that they will cluster together and observing how factor analysis groups them (Walker & Maddan, 2009).

Factor analysis has three main assumptions: (1) the data used are measured on an interval level and normally distributed; (2) the model should be free of specification error, meaning the exclusion of relevant variables and the inclusion of irrelevant variables should be absent in the model in question; and, (3) there has to be a sufficient sample size
for the model (Walker & Maddan, 2009). Walker & Maddan (2009) argued that the sample size for any factor analysis should be at least 100 observations, “or 5 times the number of variables to be included in the principal component analysis” (p. 330).

Before starting any factor analysis procedure, the analyst should determine if the sample at hand is appropriate for factor analysis. Many researchers use the *Kaiser-Meyer-Olkin measure of sampling adequacy* (KMO). The KMO represents “the ratio of the squared correlation between variables to the squared partial correlation between variables” (Field, 2009, p.547). The KMO statistic ranges from 0 to 1. A value of 0 represents high dispersion in the correlation of variables, thus making factor analysis an inappropriate statistical technique for that sample. However, a value closer to 1 indicates high levels of correlation among variables, demonstrating that factor analysis should provide the researcher with “distinct and reliable factors” (Field, 2009, p.547). Kaiser (1974) advised to accept values greater than 0.5; values equal to 0.7 or higher are a good indication of the adequacy of the sample.

The overall procedure of factor analysis consists in four main steps: (1) creation and observation of the correlation matrix or *R-Matrix*, (2) creation and observation of the factor matrix, (3) Factor extraction; and, (4) Factor Rotation (Kachigan, 1991; Walker & Maddan, 2009).

The *R-Matrix* is a correlation matrix that presents correlations between all variables included in the analysis (Field, 2009). After the correlation matrix has been formed, SPSS can be used to perform a series of mathematical operations that gives the analyst the *factor matrix*. The cell entries of the factor matrix are refereed as *factor loadings* for purposes of data reduction. According to Hair et al. (2006), “factor loadings
are the correlation of each variable and the factor. Loadings indicate the degree of correspondence between the variable and the factor, with higher loadings making the variable representative of the factor. Factor loadings are the means of interpreting the role each variable in defining each factor” (p.123). Similar to Pearson’s $r$ correlation coefficients, factor loadings vary in value from $-1.00$ to $+1.00$ (Kachigan, 1991). The variables in the factor matrix with the higher loadings in a factor represent those that have the highest correlation with all the items that comprise that factor. Hair et al. (2006) argued that factor loadings in the range of $\pm .30$ and $\pm .40$ are deemed to “meet the minimal level for interpretation of structure,” while factor loadings of at least $\pm .50$ are regarded as “practically significant,” and loadings higher than $\pm .70$ are the goal of any well-designed factor analysis (Hair et al., 2006, p.128).

There are numerous methods that can be used for the purposes of factor extraction. The most popular, principal component factor analysis (PCA), can be compared to a regression analysis, because the variables in the analysis are examined by their variance, which is then quantified (Walker & Maddan, 2009). In PCA, the percentage of total variance accounted by each component and its eigenvalues are presented. Eigenvalues denote “the amount of variance accounted for by a factor” (Hair et al., 2006, p.102). According to Walker and Maddan (2009), the main goal of the analyst at this point is to “identify the linear combination of variable that account for the greatest amount of common variance” (p. 331). Those factors that account for the higher amount of variance with eigenvalues over Kaiser’s criterion of 1 should be retained by the analyst (Field, 2009; Kachigan, 1991; Walker & Maddan, 2009).
After a close examination of the factors, the analyst should have a set of unrotated factors that achieved the objective of data reduction (Hair et al., 2006). In order to redistribute the variance from the factors extracted initially to achieve the objective of obtaining a more parsimonious and more meaningful factor pattern, analysts commonly use a technique called factor rotation (Hair et al., 2006). According to Hair et al. (2006), “in practice, the objective of all methods of rotation is to simplify the rows and columns of the factor matrix to facilitate interpretation” (p.126). There are two methods of factor reduction: orthogonal and oblique. Orthogonal methods are the most extensively employed rotational methods. Orthogonal methods are very useful whenever researchers want to achieve data reduction as a research goal. These rotated factors will then be ready to be used in other multivariate techniques such as OLS regression (Hair et al., 2006).

The most popular orthogonal rotation procedure is varimax (Walker & Maddan, 2009). Varimax rotation “simplifies the columns of the factor loading matrix by maximizing the variance of the squared loadings” (Dunteman, 1989, p. 63). Varimax tries to “maximize the dispersion of loadings within factors” (Field, 2009, p. 644). That is, this technique tries to load the least amount of variables highly on each factor in order to obtain more interpretable groups of factors (Field, 2009).

In order to examine the reliability associated with each constructed factor, researchers usually employ Cronbach’s Alpha, which is a measure of internal consistency. The most agreed upon lower reliability coefficient for a factor would be .70. However, in exploratory factor analysis, reliability coefficients of .60 or higher are acceptable (Hair et al., 2006).
The present study had 51 variables which were partitioned into three categories. The first 25 were classified as stressors of rural police (Scott, 2002), the next 12 were classified as manifestations of stress and depression among law enforcement officers, and the last 14 were items that described coping activities of law enforcement officers (see Appendix E). In order to reduce the amount of variables into a more manageable set of data, exploratory factor analysis was used. Each set of variables were subjected to principal component analysis, and the Kaiser-Meyer-Olkin measure of sampling adequacy was then used to assess the adequacy of the sample. For the purpose of this study, rotated factors with loadings of less than .6 were dismissed and Cronbach’s alpha was used to obtain the reliability of each factor.

**Stressors of Rural and Small-Town Police**

The 25 items identified by Scott (2004) as stressors proper to law enforcement officers serving rural communities and small towns were subjected to a principal component analysis with orthogonal rotation (varimax). To verify the sampling adequacy for the analysis, the Kaiser-Meyer-Olkin measure was used. The obtained coefficient for KMO was .848 which has been deemed as “great” by Field (2009). Bartlett’s test of sphericity $\chi^2 (320) = 2310.798$, $p < .000$ indicated that correlations between items were adequately large for principal component analysis. This analysis further revealed that four components had eigenvalues over Kaiser’s criterion of 1, and that these four components collectively explained 66.18% of the variance. The principal component analysis loaded 16 items into four factors. The items that cluster together on the same component suggested that component 1 signified “work-itself stressors,” component 2
“organizational stressors,” component 3 “community stressors,” and component 4 “interpersonal contact stressors.”

**Factor 1: Work-itself Stressors.** The items that loaded on the first factor, work-itself stressors, were “amount of paperwork,” “current assignment,” “dealing with the public,” “work schedule,” and “experiencing violence.” The loading of the items ranged from .623 to .810, and the communalities were greater than .3. The work-itself stressors factor explained 37.7% of the common variance and had a Cronbach’s alpha of .831. The highest loading-factor item was “amount of paperwork” with a score of .810, while the lowest loading-factor was “experiencing violence” with a score of .623 (see Table 4 for the inter-item correlation of the first factor).

**Factor 2: Organizational Stressors.** The items that loaded on the second factor, organizational stressors, were “internal politics”, “department’s leadership”, “external politics”, “inadequate reward or recognition”, and “inadequate information.” The loading of the items ranged from .614 to .817, and the communalities were greater than .3. The organizational stressors factor explained 12.6% of the common variance and had a Cronbach’s alpha of .813. The highest loading-factor item was “internal politics” with a score of .817, while the lowest loading-factor was “inadequate information” with a score of .614 (see Table 4 for the inter-item correlation of this second factor).

**Factor 3: Community Stressors.** Three items loaded on the third factor, community stressors. These were “available firearms for public”, “off-duty contact with public”, and “problems in community.” The loading of the items ranged from .647 to .760, and the communalities were greater than .3. The community stressors factor
explained 8.4% of the common variance and had a Cronbach’s alpha of .654 (see Table 4 for the inter-item correlation of the third factor).

**Factor 4: Interpersonal-Contact Stressors.** Two items loaded on the fourth factor, interpersonal-contact stressors. These were “pulling over/arresting relative” and “pulling over/arresting friend.” The loading of the items were .943 and .940 respectively, and the communalities were greater than .3. The interpersonal-contact stressors factor explained 7.3% of the common variance and had a Cronbach’s alpha of .962 (see Table 4 for the inter-item correlation of the fourth factor).

Table 4

*Inter-item Correlation for Rural Law Enforcement Stressors Factors*

<table>
<thead>
<tr>
<th>Factor</th>
<th>Item</th>
<th>Total Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Work-Itself Stressors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Amount of Paperwork</td>
<td>.810</td>
</tr>
<tr>
<td></td>
<td>Current Assignment</td>
<td>.714</td>
</tr>
<tr>
<td></td>
<td>Dealing with the Public</td>
<td>.674</td>
</tr>
<tr>
<td></td>
<td>Work Schedule</td>
<td>.656</td>
</tr>
<tr>
<td></td>
<td>Experience Violence</td>
<td>.623</td>
</tr>
<tr>
<td><strong>Organizational Stressors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Internal Politics</td>
<td>.817</td>
</tr>
<tr>
<td></td>
<td>Department’s Leadership</td>
<td>.788</td>
</tr>
<tr>
<td></td>
<td>External Politics</td>
<td>.647</td>
</tr>
<tr>
<td></td>
<td>Inadequate Reward or Recognition</td>
<td>.646</td>
</tr>
</tbody>
</table>
Table 4 (continued).

<table>
<thead>
<tr>
<th>Factor</th>
<th>Item</th>
<th>Total Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Inadequate Information</td>
<td>.614</td>
</tr>
<tr>
<td><em>Community Stressors</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Available Firearms for Public</td>
<td>.760</td>
</tr>
<tr>
<td></td>
<td>Off-Duty Contact with the Public</td>
<td>.658</td>
</tr>
<tr>
<td></td>
<td>Problems in the Community</td>
<td>.647</td>
</tr>
<tr>
<td><em>Interpersonal-Contact Stressors</em></td>
<td>Pulling over/arresting a relative</td>
<td>.943</td>
</tr>
<tr>
<td></td>
<td>Pulling over/arresting a friend</td>
<td>.940</td>
</tr>
</tbody>
</table>

Note. Cronbach’s Alpha: Work-Itself Stressors = .831; Organizational Stressors = .813; Community Stressors = .654 Interpersonal-Contact Stressors = .962. N = 320.

**Manifestations of Stress among Rural Law Enforcement Officers**

Participants in this study were asked to indicate the frequency they suffered several physical and psychological manifestations of stress such as sleep troubles, depression and anxiety symptoms. The 12 items included in the instrument were a reduced and modified version of Oliver and Meier’s instrument (2004), and they were subjected to a principal component analysis with a varimax orthogonal rotation. The Kaiser-Meyer-Olkin measure was used to confirm the sampling suitability for the analysis. The obtained coefficient for the KMO measure was .928 which has been deemed as “superb” by Field (2009). Bartlett’s test of sphericity $\chi^2 (320) = 1898.32$, $p < .000$ denoted that correlations between items were adequately large for principal component analysis. The analysis further showed that two components had eigenvalues
over Kaiser’s criterion of 1, and that these two components collectively explained 59% of the variance. The principal component analysis reduced the initial 12 items to 10 items with one factor. The loading of the items ranged from .640 to .846, and the communalities were greater than .3. The manifestation of stress factor had a Cronbach’s alpha of .913. The highest loading-factor item was “disturbed and restless sleep” with a score of .846, while the lowest loading-factor was “concentration on job” with a score of .640. The only two items that did not load into the factor were “I feel hurt when someone criticizes me” and “Overall, I am a happy person.” Table 5 presents the inter-item correlation of this factor.

Table 5

*Inter-item Correlation for Physical and Psychological Manifestation of Stress Scale*

<table>
<thead>
<tr>
<th>Item</th>
<th>Total Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disturbed and Restless Sleep</td>
<td>.846</td>
</tr>
<tr>
<td>Going to Sleep with Weird Ideas</td>
<td>.844</td>
</tr>
<tr>
<td>Mood Changes</td>
<td>.821</td>
</tr>
<tr>
<td>Hard to Relax</td>
<td>.797</td>
</tr>
<tr>
<td>Getting Tired Easily</td>
<td>.792</td>
</tr>
<tr>
<td>Feeling Sad and Depressed</td>
<td>.755</td>
</tr>
</tbody>
</table>
Table 5 (continued).

<table>
<thead>
<tr>
<th>Item</th>
<th>Total Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stomach Trouble</td>
<td>.753</td>
</tr>
<tr>
<td>Getting Upset Rather Easily</td>
<td>.731</td>
</tr>
<tr>
<td>Having Nightmares</td>
<td>.675</td>
</tr>
<tr>
<td>Lack of Concentration on the Job</td>
<td>.640</td>
</tr>
</tbody>
</table>

Note. Cronbach’s Alpha = .913; N = 320

Coping among Rural and Small-Town Police

Participants in this study were asked what kind of activities they carry out whenever they are stressed. These 14 items were included in the LEWA survey (Scott, 2002) and replicated in this study’s instrument. The items were analyzed by employing a principal component analysis with a varimax orthogonal rotation. The Kaiser-Meyer-Olkin measure was used to confirm the sampling suitability for the analysis. The obtained coefficient for KMO was .721, which has been deemed as “good” by Field (2009). Bartlett’s test of sphericity $\chi^2 (320) = 392.973, p < .000$ indicated that correlations between items were adequately large for principal component analysis. This analysis showed that two components had eigenvalues over Kaiser’s criterion of 1 and that these two components collectively explained 50.77% of the variance. The principal component analysis loaded the initial 14 items to 8 items with two factors. The items that grouped together on the same component suggested that component 1 signified “isolative coping” and component 2 “social coping.”
**Factor 1: Isolative Coping.** The items that loaded on the first factor, isolative coping, were “sleeping,” “driving,” “taking days-off,” and “surfing the internet.” The loading of the items ranged from .646 to .817, and the communalities were greater than .3. The isolative factor explained 29.7% of the common variance and had a Cronbach’s alpha of .646. The highest loading-factor item was “sleeping” with a score of .817, while the lowest loading-factor was “surfing the internet” with a score of .653 (see Table 6 for the inter-item correlation of the first factor).

**Factor 2: Social Coping.** Four items loaded on the second factor, social coping. These were “listening to music,” “going to church or pray,” “exercising,” and “doing a social activity or hobby.” The loading of the items ranged from .640 and .784, and the communalities were greater than .3. The social coping factor explained 21.07% of the common variance and had a Cronbach’s alpha of .665 (see Table 6 for the inter-item correlation of the second factor).

Table 6

*Inter-item Correlation for Social and Isolative Coping Factors*

<table>
<thead>
<tr>
<th>Factor</th>
<th>Item</th>
<th>Total Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Social Coping</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Listening to Music</td>
<td>.784</td>
</tr>
<tr>
<td></td>
<td>Going to Church or Pray</td>
<td>.694</td>
</tr>
<tr>
<td></td>
<td>Exercising</td>
<td>.682</td>
</tr>
</tbody>
</table>
Table 6 (continued).

<table>
<thead>
<tr>
<th>Factor</th>
<th>Item</th>
<th>Total Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Activity</td>
<td>Social Activity or Hobby</td>
<td>.640</td>
</tr>
<tr>
<td>Isolative Coping</td>
<td>Sleeping</td>
<td>.817</td>
</tr>
<tr>
<td></td>
<td>Driving</td>
<td>.788</td>
</tr>
<tr>
<td></td>
<td>Taking Days-off</td>
<td>.647</td>
</tr>
<tr>
<td></td>
<td>Surfing the Internet</td>
<td>.646</td>
</tr>
</tbody>
</table>

Note. Cronbach’s Alpha: Social Coping = .665; Isolative Coping = .646. N = 320

Summary of Factor Analysis

The present study had 51 variables which were partitioned into three categories: stressors of rural police (25), manifestations of stress and depression (12) and coping strategies (14) among rural law enforcement officers. Each set of variables were subjected to principal component analysis. As a result, 16 of the 25 rural police stressors loaded into four factors: “work-itself stressors,” ”organizational stressors,” ”community stressors,” and “interpersonal contact stressors.” Furthermore, the 10 of the 12 items representing manifestations of depression and stress loaded onto one factor, “Physical and Psychological Manifestations of Stress.” Moreover, the principal component analysis loaded the initial 14 items representing coping strategies to eight items with two factors: “isolative coping” and “social coping.”
Univariate Statistics

The descriptive statistics for all variables (excluding demographics) within the analysis can be observed in Table 7. These include: levels of perceived stress, work itself stressors, organizational stressors, community stressors, interpersonal contact stressors, physical and psychological manifestations of stress (levels of anxiety and depression), social coping, isolative coping.

Table 7

*Descriptive Statistics of Variables in the Analysis*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Levels of Stress</td>
<td>6.15</td>
<td>2.02</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Work-Itself Stressors</td>
<td>17.26</td>
<td>11.32</td>
<td>.00</td>
<td>50.00</td>
</tr>
<tr>
<td>Organizational Stressors</td>
<td>19.16</td>
<td>10.00</td>
<td>.00</td>
<td>40.00</td>
</tr>
<tr>
<td>Community Stressors</td>
<td>11.80</td>
<td>6.83</td>
<td>.00</td>
<td>30.00</td>
</tr>
<tr>
<td>Interpersonal-Contact Stressors</td>
<td>4.35</td>
<td>4.88</td>
<td>.00</td>
<td>20.00</td>
</tr>
<tr>
<td>Anxiety and Depression</td>
<td>29.25</td>
<td>21.97</td>
<td>.00</td>
<td>97.00</td>
</tr>
<tr>
<td>Social Coping</td>
<td>21.82</td>
<td>9.02</td>
<td>0</td>
<td>40.00</td>
</tr>
<tr>
<td>Isolative Coping</td>
<td>12.24</td>
<td>8.17</td>
<td>.00</td>
<td>37.00</td>
</tr>
</tbody>
</table>

Perceived Levels of Stress (0 = No stress, 10 = High Stress); Work-Itself Stressors (0 = No Stress, 10 = High Stress); Organizational Stressors (0 = No Stress, 10 = High Stress); Community Stressors (0 = No Stress, 10 = High Stress); Interpersonal-Contact Stressors (0 = No Stress, 10 = High Stress); Anxiety-Depression Scale (0= Never, 1= Most of the Time); Social Coping (0 = Never, 10=Most of the Time); Isolative Coping (0 = Never, 10=Most of the Time)
Bivariate Statistics

Bivariate correlations were conducted in order to identify the strength and direction of the associations between variables as well as to determine if there were possible issues with multicollinearity. In the social sciences, the Pearson product-moment correlation coefficient ($r$) is one of the most used measures of correlation. Pearson’s $r$ is a “measure of the linear association between two variables” (Miethe, 2007, p. 242). Pearson’s $r$ also summarizes the shared variance between two interval or ratio level variables. The value of Pearson’s $r$ ranges from -1.00 (perfect negative relationship between the two variables) to +1.00 (perfect positive relationship between the two variables). According to Miethe (2007), for moderate to large samples (more than 50 and less than 500 observations), correlations can be classified as follows: perfect relationship: $\pm 1$; strong relationship: $r = +.70$ to +.99; moderately strong relationship: $r = +.50$ to +.69; moderate relationship: $r = +.35$ to +.49; moderate weak relationship: $r = +.20$ to +.34; weak relationship: $r = +.10$ to +.19; and, no relationship: $r = +.00$ to +.09.

It is imperative that the models do not violate the assumptions of the Pearson product-moment correlation coefficient. As Pearson’s $r$ requires variables to be measured at the interval level, the researcher had to transform some of the demographic variables that were measured at the nominal level in the data set. As such, the demographic variables gender, race, relationship and education were recoded into dummy variables (see Table 8).
Table 8

Recoded Demographic Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>New Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>0 = Male ; 1 = Female</td>
</tr>
<tr>
<td>Race</td>
<td>0 = White ; 1 = Non-White</td>
</tr>
<tr>
<td>Education</td>
<td>0 = No College Degree ; 1 = College Degree</td>
</tr>
<tr>
<td>Relationship</td>
<td>0 = Married ; 1 = Non-Married</td>
</tr>
</tbody>
</table>

Correlations with Levels of Perceived Stress

The variable presenting the highest correlation with levels of perceived stress, was organizational stressors ($r = .509, p < .01$). Levels of perceived stress also had moderate correlations with work-itself stressors ($r = .450, p < .01$), levels of anxiety and depression ($r = .412, p < .01$), and community stressors ($r = .371, p < .01$). Among all demographic variables, only education was found to have a significant correlation with levels of perceived stress ($r = .140, p < .05$).

Correlations with Work-Itself Stressors

Work-itself stressors were found to be moderately associated with four variables: community stressors ($r = .555, p < .01$), organizational stressors ($r = .510, p < .01$), levels of anxiety and depression ($r = .467, p < .01$), and interpersonal-contact stressors ($r = .425, p < .01$). Work-itself stressors had a moderately weak correlation with isolative coping ($r = .230, p < .01$), while a correlation with social coping was not found. Of all demographic variables, work-itself stressors were found to be significantly associated
(though weakly) with only years in law enforcement \((r = .178, p < .01)\) and race \((r = .031, p < .05)\).

*Correlations with Organizational Stressors*

Organizational stressors were significantly and moderately correlated (to some degree) with community stressors \((r = .526, p < .01)\) and levels of anxiety and depression \((r = .446, p < .01)\). Correlations with isolative coping \((r = .269, p < .01)\) and interpersonal-contact stressors \((r = .220, p < .01)\) were relatively low but still significant. Significant correlations, though weak, were also found between organizational stressors and three demographic variables: education \((r = .192, p < .01)\), years in law enforcement \((r = .142, p < .01)\), and age \((r = .128, p < .05)\).

*Correlations with Community Stressors*

Community stressors had a moderately weak correlation with interpersonal levels of anxiety and depression \((r = .327, p < .01)\), interpersonal-contact stressors \((r = .281, p < .01)\), and isolative coping \((r = .233, p < .01)\). Of the demographic variables, only gender was weakly, but significantly, correlated to community stressors \((r = .160, p < .01)\).

*Correlations with Interpersonal-Contact Stressors*

Interpersonal contact stressors was significantly but moderately weak associations with isolative coping \((r = .259, p < .01)\) and levels of anxiety and depression \((r = .246, p < .01)\). Of the demographic variables, only relationship status \((r = .149, p < .01)\) had significant, though weak, correlation with interpersonal-contact stressors. The rest of the demographic variables did not have a significant correlation with this variable.
**Correlations with Levels of Depression and Anxiety**

Levels of depression and anxiety showed a moderately weak relationship with isolative coping \((r = .290, p < .01)\), while no significant association was found with social coping. Within the demographic variables, levels of depression and anxiety were positively and weakly associated with years in law enforcement \((r = .136, p < .05)\) and gender \((r = .114, p < .05)\). In addition, levels of depression and anxiety were negatively correlated to race \((r = -.133, p < .05)\).

**Correlations with Social Coping**

As previously stated, social coping was not significantly related to other independent variables with the exception for isolative coping \((r = .169, p < .01)\). Furthermore, it also showed weak correlations with race \((r = .199, p < .01)\), gender \((r = .183, p < .01)\), education \((r = .113, p < .05)\). In addition social coping was negatively correlated to years in law enforcement \((r = -.154, p < .01)\).

**Correlations with Isolative Coping**

As noted before, isolative coping showed moderately weak correlations with levels of anxiety and depression \((r = .290, p < .01)\), organizational stressors \((r = .269, p < .01)\), interpersonal-contact stressors \((r = .259, p < .01)\), community stressors \((r = .233, p < .01)\), work-itself stressors \((r = .230, p < .01)\). In regard to demographic variables, the correlation between isolative coping and gender was weak \((r = .124, p < .05)\).

**Summary of Correlation Analyses**

The bivariate analysis of the variables included in this study showed that *levels of perceived stress* were moderately-high correlated to organizational stressors, and very weakly correlated to isolative coping. *Work-itself stressors* were found to be moderately
associated with organizational stressors, community stressors, interpersonal stressors, and levels of anxiety and depression. Furthermore, organizational stressors were moderately correlated with community stressors and levels of anxiety and depression. Community stressors showed a moderately weak association with interpersonal-contact stressors, levels of anxiety and depression and isolative coping. Moreover, interpersonal-contact stressors had moderately weak associations with levels of anxiety and depression and isolative coping. Finally, most of the variables mentioned above showed weak associations with the demographic variables included in the study. For more details of correlations between variables please refer to Appendix E.

Ordinary Least Squares Regression Analysis

Overview

One of the main goals of this study was to investigate the relationship between the criterion variables, levels of perceived stress and coping styles among rural law enforcement officers, and an array of predictor variables. To achieve this goal, OLS regression analysis was used. Multiple regression analysis is a multivariate statistical technique that evaluates the relationship between a dependent variable and multiple independent variables (Hair et al., 2006). Within the regression statistical model, each predictor variable is weighted to warrant the utmost prediction from the set of independent (predictor) variables. The weight for each independent variable “denotes the relative contribution of the independent variables to the overall prediction and facilitates interpretation as to the influence of each variable in making the prediction” (Hair et al., 2006, p.176). The obtained set of weighted independent variables produces the regression variate or regression equation, which is “a linear combination of the independent
variables that best predicts the dependent variable” (Hair et al., 2006, p.176). The variability of the dependent variable can be represented by the following formula:

\[ Y = a + bX + e \]

where \( Y \) represents the predicted variable of the independent variable, \( a \) the intercept, \( b \) the slope, \( X \) the value of the independent variable introduced in the formula, and \( e \) the error related to the regression model (Walker & Maddan, 2009).

When using multiple regression, a series of assumptions must be met (Hair et al., 2006; Walker & Maddan, 2009). One of the main assumptions in multiple regression is normality. Normality refers to the data shape of a metric variable distribution (Hair et al., 2006). Multiple regression also presupposes that all variables have normal distributions. The use of variables that are not normally distributed—highly kurtotic or skewed variables—will misrepresent relationships between variables. As such, variables must be tested with individual-based procedures for normality, both graphically and statistically. Since there is no test for multivariate normality, single tests of univariate normality must be employed.

The second most important assumption of multiple regression is linearity. The dependent variable and all independent variables included in the analysis should present linear relationships (Hair et al., 2006). OLS regression cannot account for curvilinear relationships. Thus, a data set with curvilinear relationships “will produce low regression coefficients even if there is a strong association among the variables” (Walker & Maddan, 2009, p. 271). Nonlinearity can be better detected by the examination of bivariate scatterplots.
The next assumption of multiple regression is that there is a lack of specification error in the model. That is, every independent variable that is critical to explaining the dependent variable should be included, while those that are not critical should be excluded (Walker & Maddan, 2009). Furthermore, another important issue related to specification error is multicollinearity among variables. Multicollinearity occurs when there are high levels of shared variance between independent variables in the model. The presence of multicollinearity may have a negative impact on the model (Field, 2009).

Homoscedasticity is another important assumption of multiple regression. Heteroscedasticity occurs when the variance of the error terms differ across observations, thus violating the assumption of homoscedasticity. When heteroscedasticity is present, the variance and the standard errors of the coefficients tend to be underestimated, inflating t-scores and, at times, can make insignificant variables appear to be statistically significant (Williams, 2009). The effect of heteroscedasticity is directly related to sample size, especially when the analyst examines the variance dispersions across groups (Hair et al., 2006).

Lastly, multiple regression requires that all variables in the analysis are measured at the interval level. As multiple regression uses the mean and variance as main measures, nominal and ordinal data should not be used for the analysis. Walker and Maddan (2009) indicated that all ordinal data should be dummy coded. However, dummy coding should not be used if one of the categories contains less than 20% of the cases.

Model 1

After testing the assumptions of multiple regression (see Appendix C) and the screening of the data, a standard multiple regression ordinary least squares (OLS)
analysis was performed in order to measure whether the independent variables, work-itself stressors, organizational stressors, community stressors, interpersonal-contact stressors, levels of anxiety and depression, social coping, isolative coping, age, race, gender, relationship status, educational level, and years in law enforcement had an effect on predicted levels of perceived stress among rural and small town law enforcement officers. The linear combination of independent variables in this model was significant in predicting levels of perceived stress: $F(13, 306) = 13.813, p < .000$. $R^2 = .370$ and adjusted $R^2 = .343$. The results indicate that 37% of the variance in levels of perceived stress was explained by its linear relationship with all independent variables.

In this model, four independent variables were statistically significant: work-itself stressors $t(320) = 3.767, p < .001$, organizational stressors $t(320) = 5.088, p < .001$, levels of anxiety and depression $t(320) = 3.147, p < .01$, and race $t(320) = -2.133, p < .05$ (see Table 9).

Table 9

*Model 1 (Law Enforcement Stress)*

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>SE B</th>
<th>$\hat{\beta}$</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>4.415</td>
<td>.544</td>
<td>8.121</td>
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<tr>
<td>Social Coping</td>
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<td>.011</td>
<td>.032</td>
<td>.658</td>
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<tr>
<td>Isolative Coping</td>
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<td>.012</td>
<td>-.099</td>
<td>-1.969*</td>
</tr>
<tr>
<td>Work-Itself Stressors</td>
<td>.043</td>
<td>.011</td>
<td>.240</td>
<td>3.767**</td>
</tr>
<tr>
<td>Organizational Stressors</td>
<td>.062</td>
<td>.012</td>
<td>.306</td>
<td>5.088**</td>
</tr>
<tr>
<td>Community Stressors</td>
<td>.023</td>
<td>.018</td>
<td>.077</td>
<td>1.299</td>
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</table>
Table 9 (Continued).

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
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<th>â</th>
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<tbody>
<tr>
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<td>.022</td>
<td>-.098</td>
<td>-1.883</td>
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<tr>
<td>Anxiety-Depression Scale</td>
<td>.016</td>
<td>.005</td>
<td>.177</td>
<td>3.147**</td>
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<td>Race</td>
<td>-.470</td>
<td>.220</td>
<td>-.102</td>
<td>-2.133*</td>
</tr>
<tr>
<td>Relationship Status</td>
<td>-.240</td>
<td>.205</td>
<td>-.056</td>
<td>-1.168</td>
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<td>Education</td>
<td>.344</td>
<td>.208</td>
<td>.078</td>
<td>1.653</td>
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<tr>
<td>Gender</td>
<td>.243</td>
<td>.353</td>
<td>.033</td>
<td>.689</td>
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<td>Age</td>
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<td>.015</td>
<td>-.073</td>
<td>-.985</td>
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<tr>
<td>Years in Law Enforcement</td>
<td>.004</td>
<td>.018</td>
<td>.015</td>
<td>.201</td>
</tr>
</tbody>
</table>

Note. *** p < .001** p < .01; * p < .05. R = .608; R² = .370; Adjusted R² = .343; F = 13.813; df1 = 13; df2 = 306; Durbin-Watson = 2.240

The unstandardized (B) and standardized (β) coefficients were obtained from the regression analysis. The unstandardized coefficient (B) allows the analyst to determine the impact on the dependent variable, when the particular independent variable is changed by one unit, controlling for all other variables (Field, 2009).

In model 1, unstandardized coefficients indicated that a one unit increase on work-itself stressors resulted in a .043 increase in levels of perceived stress, controlling for all other variables. Additionally, a one unit increase in organizational stressors resulted in a .062 increase in levels of perceived stress, controlling for all other variables, while a one unit increase in levels of anxiety and depression resulted in a .016 increase in levels of perceived stress, controlling for all other variables. Lastly, a one unit increase on race
resulted in a .470 decrease on levels of perceived stress, controlling for all other variables.

It is important to note that, for this assessment, the units are in original, raw data form. If each variable is measured employing various units, then the impact of each variable cannot be compared. Standardized coefficients (β) allow for comparison from one variable to the other, as they standardize the raw data. In addition, standardized coefficients allow for rank ordering of each variable within the model. While the unstandardized coefficients are most easily interpreted, they are measured in their own metric, and thus, do not allow for any sort of comparison of the impact of change that each has on the dependent variable. Therefore, the standardized coefficient (Beta) allows the analyst to more accurately assess the relative impact of each variable from highest to lowest. It can be observed within this model (see Table 9) that the variable with the highest standardized coefficient was “organizational stressors,” which can be interpreted to mean that a one standard deviation change increase in organizational stressors results in a .306 standard deviation increase in the dependent variable. It can then be determined that the variable “work-itself stressors” (β = .240) has the second highest impact of change on the dependent variable, followed by “levels of anxiety and depression” (β = .177) and “race” (β = -.102).

The standardized coefficients cannot be interpreted for the categorical variables “gender,” ”race,” ”relationship, and “education.” Because standard deviations are interpreted as the deviations from the mean, and the only level of central tendency that is applicable to categorical level data is the mode.
Model 2 (Social Coping)

A second OLS regression analysis was performed in order to measure whether the independent variables, levels of perceived stress, work-itself stressors, organizational stressors community stressors, interpersonal-contact stressors, levels of anxiety and depression, age, race, gender, educational level, relationship, and years on law enforcement predicted social coping among rural and small-town law enforcement officers. The linear combination of independent variables in this model was significant in predicting levels of social coping: \( F(12, 307) = 3.324, p <.000. \) \( R^2 = .115 \) and adjusted \( R^2 = .080. \) The results indicate that 11.5% of the variance in social coping was explained by its linear relationship with all independent variables.

In this model, three independent variables were statistically significant: years in law enforcement \( t(320) = -2.549, p < .05, \) race \( t(320) = 2.568, p < .05, \) and gender \( t(320) = 2.424, p < .05 \) (See Table 10).

Table 10

<table>
<thead>
<tr>
<th>Model 2 (Social Coping)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables</td>
</tr>
<tr>
<td>-------------------------</td>
</tr>
<tr>
<td>Constant</td>
</tr>
<tr>
<td>Levels of Perceived Stress</td>
</tr>
<tr>
<td>Work-Itself Stressors</td>
</tr>
<tr>
<td>Organizational Stressors</td>
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<tr>
<td>Community Stressors</td>
</tr>
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Table 10 (continued).

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>SE B</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpersonal-Contact Stressors</td>
<td>-.054</td>
<td>.113</td>
<td>-.473</td>
</tr>
<tr>
<td>Anxiety-Depression Scale</td>
<td>-.052</td>
<td>.027</td>
<td>-1.920</td>
</tr>
<tr>
<td>Race</td>
<td>2.972</td>
<td>1.158</td>
<td>2.568*</td>
</tr>
<tr>
<td>Relationship Status</td>
<td>.606</td>
<td>1.085</td>
<td>.559</td>
</tr>
<tr>
<td>Education</td>
<td>1.674</td>
<td>1.099</td>
<td>1.523</td>
</tr>
<tr>
<td>Gender</td>
<td>4.467</td>
<td>1.843</td>
<td>2.424*</td>
</tr>
<tr>
<td>Age</td>
<td>.092</td>
<td>.080</td>
<td>1.153</td>
</tr>
<tr>
<td>Years in Law Enforcement</td>
<td>-.236</td>
<td>.093</td>
<td>-2.549*</td>
</tr>
</tbody>
</table>

Note. ** p < .01; * p < .05. R = .339; R² = .115; Adjusted R²= .080; F=3.324; df1= 12; df2=307; Durbin-Watson = 1.845

In model 2, unstandardized coefficients indicated that a one unit increase on “years on law enforcement” resulted in a -.236 decrease on social coping, controlling for all other variables (see Table 10). Additionally, a one unit increase on “race” resulted in a 2.972 increase in social coping, controlling for all other variables, while one unit increase on gender resulted in a 4.467 increase in social coping, controlling for all other variables.

In interpreting standardized coefficients, it can be observed within this model that the variable with the highest standardized coefficient was “race,” which can be interpreted to mean that a one standard deviation increase in race results in a .145 standard deviation increase in the dependent variable. It can then be determined that the variable “gender” (β =.138) has the second highest impact of change on the dependent
variable, while “years in law enforcement” (β = -0.224) was the third highest impact on the dependent variable (see Table 10).

**Model 3 (Isolative Coping)**

A third OLS regression analysis was conducted in order to measure whether the independent variables (levels of perceived stress, work-itself stressors, organizational stressors, community stressors, interpersonal-contact stressors, levels of anxiety and depression, age, race, gender, educational level, relationship status, and years on law enforcement) predicted isolative coping among rural and small town law enforcement officers. The linear combination of independent variables in this model was significant in predicting levels of perceived stress: \( F(12, 307) = 4.968, p < .000. R^2 = .163 \) and adjusted \( R^2 = .130 \). The results indicate that 16.3% of the variance in isolative coping was explained by its linear relationship with all independent variables.

In model 3, three independent variables were statistically significant: organizational stressors, \( t(320) = 2.189, p < .05 \), interpersonal-contact stressors, \( t(320) = 2.701, p < .01 \), and levels of anxiety and depression, \( t(320) = 3.103, p < .01 \).

Table 11

**Model 3 (Isolative Coping)**

<table>
<thead>
<tr>
<th>Variables</th>
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<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>10.257</td>
<td>2.599</td>
<td>3.946</td>
</tr>
<tr>
<td>Levels of Perceived Stress</td>
<td>-.497</td>
<td>.264</td>
<td>-.123</td>
</tr>
<tr>
<td>Work-Itself Stressors</td>
<td>.000</td>
<td>.054</td>
<td>.000</td>
</tr>
</tbody>
</table>
Table 11 (Continued).

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>SE B</th>
<th>(\hat{a})</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational Stressors</td>
<td>.128</td>
<td>.059</td>
<td>.157</td>
<td>2.189*</td>
</tr>
<tr>
<td>Community Stressors</td>
<td>.096</td>
<td>.082</td>
<td>.080</td>
<td>1.168</td>
</tr>
<tr>
<td>Interpersonal-Contact Stressors</td>
<td>.269</td>
<td>.100</td>
<td>.161</td>
<td>2.701**</td>
</tr>
<tr>
<td>Anxiety-Depression Scale</td>
<td>.074</td>
<td>.024</td>
<td>.199</td>
<td>3.103**</td>
</tr>
<tr>
<td>Race</td>
<td>.055</td>
<td>1.020</td>
<td>.003</td>
<td>.054</td>
</tr>
<tr>
<td>Relationship Status</td>
<td>.468</td>
<td>.956</td>
<td>.027</td>
<td>.490</td>
</tr>
<tr>
<td>Education</td>
<td>.561</td>
<td>.968</td>
<td>.032</td>
<td>.580</td>
</tr>
<tr>
<td>Gender</td>
<td>1.824</td>
<td>1.624</td>
<td>.062</td>
<td>1.123</td>
</tr>
<tr>
<td>Age</td>
<td>-.078</td>
<td>.070</td>
<td>-.095</td>
<td>-1.109</td>
</tr>
<tr>
<td>Years in Law Enforcement</td>
<td>.060</td>
<td>.082</td>
<td>.063</td>
<td>.735</td>
</tr>
</tbody>
</table>

Note. ** \(p < .01\); * \(p < .05\). \(R = .403; R^2 = .163; \) Adjusted \(R^2 = .130; F = 4.968; df1 = 12; df2 = 307; \) Durbin-Watson = 2.961

In model 3, unstandardized coefficients indicated that a one unit increase in “organizational stressors” resulted in a .128 increase in isolative coping, controlling for all other variables. Additionally, a one unit increase in “interpersonal-contact stressors” resulted in a .269 increase in isolative coping, controlling for all other variables, while a one unit increase in “levels of anxiety and depression” resulted in a .074 increase in isolative coping, controlling for all other variables.

In interpreting standardized coefficients, it can be observed within this model that the variable with the highest standardized coefficient was “levels of anxiety and depression,” which can be interpreted to mean that a one standard deviation increase in
organizational stressors resulted in a .199 standard deviation increase in the dependent variable. It can then be determined that the variable “interpersonal-contact stressors” (β = .161) has the second highest impact of change on the dependent variable, while “organizational stressors” (β = .157) was the third highest impact on the dependent variable (see Table 11).

Research Questions and Hypotheses Testing

This study was guided by seven research questions. From these, seven two-tailed hypotheses were developed. The results of the univariate, bivariate and OLS regression statistical procedures were used to answer and test the research questions and hypotheses.

Research Questions

Research Question 1: What are the levels of perceived stress among rural law enforcement officers? In order to answer the first research question, a univariate descriptive analysis was conducted for the variable “how stressful is police work.” This variable was measured on a 10-point likert scale (0 = no stress and 10 = high stress). As a result of the descriptive statistical analysis, the mean of the responses to this question was obtained ($Mean = 6.15, SD = 2.02$). It can be concluded that rural law enforcement officers in the sample considered the stress related to rural law enforcement to be moderately high.

Research Question 2: What are the main stressors affecting rural law enforcement officers? Means for all stressors identified in the LEWA survey (Scott, 2004) and included in the instrument were obtained and examined. All stressors were measured on a 10-point likert scale (0 = no stress and 10 = high stress). “Internal politics” was identified as the most stressful for the officers in the sample ($Mean = 5.32, SD = 3.39$). There were
two other stressors showing means above 5, which can be considered moderately high. These were: “external politics” \((Mean = 5.31, SD = 3.43)\) and “witnessing child abuse” \((Mean = 5.16, SD = 3.24)\). “Pulling over/arresting a relative” was the item that officers and deputies in the sample identified as the least stressful \((Mean = 2.12, SD = 2.47)\) followed by “pulling over/arresting a friend” \((Mean = 2.23, SD = 2.50)\), “racial tension” \((Mean = 2.33, SD = 3.01)\), and “computer use” \((Mean = 2.49, SD = 2.79)\).

**Research Question 3: How do rural law enforcement officers cope with stress?** Means for all coping mechanisms identified in the LEWA survey (Scott, 2004), and included in the instrument were obtained and examined. All coping mechanisms were measured on a 10-point likert scale \((0 = never and 10 = most of the time)\). The most frequent coping strategy used by rural law enforcement officers in the sample was “listening to music” \((Mean = 6.08, SD = 3.17)\) followed by “doing an activity or hobby” \((Mean = 5.82, SD = 3.09)\), and “going to church” \((Mean = 5.47, SD = 3.44)\). The least used coping strategies by the officers and deputies in the sample were “using drugs” \((Mean = .25, SD = 1.166)\) and “taking medication” \((Mean = .80, SD = 1.94)\). It appears that officers in this sample mainly used adaptive coping strategies and minimally used maladaptive coping strategies to deal with work-related stress.

**Research Question 4: Is there a relationship between individual demographic characteristics of rural law enforcement officers and their perceived levels of stress?** From all demographic variables included in the analysis, only education showed a statistically significant relationship with levels of perceived stress \((r = .140, p < .01)\). The remainder of the demographic variables—age, years on law enforcement, gender,
relationship status and race—were not significantly correlated to levels of perceived stress.

Research Question 5: Is there a relationship between individual demographic characteristics of rural law enforcement officers and social coping mechanisms? Four demographic variables were significantly correlated to social coping. Three of them were positively correlated: race ($r = .199, p < .01$), gender ($r = .183, p < .01$), and education ($r = .113, p < .05$). Years in law enforcement ($r = -.154, p < .01$) was negatively correlated to social coping.

Research Question 6: Is there a relationship between individual demographic characteristics of rural law enforcement officers and isolative coping mechanisms? From all demographic variables included in the analysis only gender showed a significant positive correlation with isolative coping ($r = .124, p < .05$). The remainder of the demographic variables—age, years on law enforcement, education, relationship status and race—were not significantly correlated to levels of perceived stress.

Research Question 7: Is there a relationship between individual demographic characteristics of rural law enforcement officers and their perceived levels of anxiety and depression? Three demographic variables were significantly correlated to rural law enforcement officers’ perceived levels of anxiety and depression. Race ($r = -.133, p < .05$) was negatively correlated to levels of anxiety and depression, while years in law enforcement ($r = .136, p < .05$) and gender ($r = .114, p < .05$) were positively correlated to levels of anxiety and depression.
From these research questions seven hypotheses were developed.

Hypotheses

Hypothesis 1: Rural law enforcement stressors are significantly positively related to perceptions of stress by rural law enforcement officers. The results in Model 1 indicated mixed results. More specifically, work-itself stressors ($t(320) = 3.767, p = .000$) and organizational stressors ($t(320) = 5.088, p = .000$) had a significant relationship with the dependent variable, perceived level of stress. Conversely, community stressors ($t(320) = 1.299, p = .195$) and interpersonal-contact stressors ($t(320) = -1.883, p = .061$) were found to be non-significant predictors of the dependent variable, perceived levels of stress. Therefore, for work-itself stressors and organizational stressors the null hypothesis was rejected, demonstrating that the relationship appears to be trustworthy and not due to chance or sampling error. However, for community stressors and interpersonal-contact stressors the analyst failed to reject the null hypothesis of no relationship.

Hypothesis 2: There is a positive relationship between levels of anxiety and depression and reported levels of perceived stress. The results in Model 1 showed that levels of anxiety and depression ($t(320) = 3.147, p = .002$) was a significant predictor of the dependent variable, levels of perceived stress. Thus, the null hypothesis of no relationship was rejected. It can be concluded, then, that the relationship between levels of anxiety and depression and reported levels of perceived stress appears to be trustworthy and not due to chance or sampling error.

Hypothesis 3: There is a positive relationship between rural law enforcement officers’ demographic characteristics and reported levels of perceived stress. The results in Model 1 indicated inconclusive results. That is, only race was found to be a significant predictor
of the dependent variable, levels of perceived stress \((t (320) = -2.133, p = .034)\). Therefore, the null hypothesis was rejected, demonstrating that the relationship between race and reported levels of perceived stress appears to be trustworthy and not due to chance or sampling error. On the contrary, relationship status \((t (320) = -1.168, p = .244)\), education \((t (320) = 1.653, p = .099)\), gender \((t (320) = .689, p = .491)\), years in law enforcement \((t (320) = .201, p = .841)\), and age \((t (320) = -.985, p = .326)\) were all found to be non-significant predictors of perceived levels of stress among rural law enforcement officers. Consequently, the analyst failed to reject the null hypothesis of no relationship for relationship status, education, gender, years in law enforcement, and age with the dependent variable, reported levels of perceived stress.

**Hypothesis 4:** There is a positive relationship between rural law enforcement officers’ coping styles and reported levels of perceived stress. The results in Model 1 indicated mixed results. More specifically, isolative coping \((t (320) = -1.969, p = .049)\) was found to be a significant contributor to explain the variance in the dependent variable, levels of perceived stress. However, social coping \((t (320) = .658, p = .511)\) was not found to have a significant relationship with the dependent variable, controlling for the effect of other independent variables. Therefore, for isolative coping the null hypothesis was rejected, demonstrating that the relationship appears to be trustworthy and not due to chance or sampling error. However, for social coping the analyst failed to reject the null hypothesis of no relationship.

**Hypothesis 5:** There is a positive relationship between rural law enforcement stressors and rural law enforcement officers’ coping styles. In Model 2, work-itself stressors \((t (320) = 1.065, p = .288)\), organizational stressors \((t (320) = .626, p = .531)\), community
stressors \((t(320) = .646, p = .460)\), and interpersonal-contact stressors \((t(320) = -.473, p = .636)\) were not found to be significant contributors to explain the variance of the dependent variable, social coping. Consequently, the analyst failed to reject the null hypothesis of no relationship for work-itself stressors, organizational stressors, community stressors and interpersonal-contact stressors with the dependent variable, social coping.

The results in Model 3 indicated mixed results. More specifically, two of the four rural law enforcement stressors included in the model, organizational stressors \((t(320) = 2.189, p = .029)\) and interpersonal-contact stressors \((t(320) = 2.701, p = .007)\) were found to be significant contributors to the dependent variable, isolative coping. However, work-itself stressors \((t(320) = .004, p = .997)\) and community stressors \((t(320) = 1.168, p = .244)\) were not found to have a significant relationship with the dependent variable, isolative coping. Therefore, for organizational stressors and interpersonal-contact stressors the null hypothesis was rejected, appears to be trustworthy and not due to chance or sampling error. However, for community stressors and work-itself stressors the analyst failed to reject the null hypothesis of no relationship.

Hypothesis 6: There is a positive relationship between levels of anxiety and depression and rural law enforcement officers’ coping styles. After examining regression Model 2, it can be concluded that levels of anxiety and depression \((t(320) = -1.920, p = .056)\) was not a significant contributor to the dependent variable, social coping. Thus, the analyst failed to reject the null hypothesis of no relationship between levels of anxiety and depression and social coping styles.
In Model 3, it was observed that levels of anxiety and depression \( t (320) = 3.103, p = .002 \) was a positive significant contributor to explain the variance in the dependent variable, isolative coping. Therefore, for levels of anxiety and depression the null hypothesis was rejected, demonstrating that the relationship appears to be trustworthy and not due to chance or sampling error.

*Hypothesis 7: There is a positive relationship between rural law enforcement officers’ demographic characteristics and rural law enforcement officers’ coping styles.* The results in Model 2 indicated mixed results. More specifically, three demographic variables, race \( t (320) = 2.568, p = .011 \), years in law enforcement \( t (320) = -2.985, p = .011 \), and gender \( t (320) = 2.424, p = .016 \) were significant predictors of the dependent variable, social coping. The rest of the demographic variables—age \( t (320) = 1.523, p = .250 \), relationship status \( t (320) = .559, p = .577 \) and education \( t (320) = 1.523, p = .129 \)—were not found to be significant contributors of the dependent variable, social coping. Therefore, for race, years in law enforcement, and gender the null hypothesis was rejected, demonstrating that the relationship appears to be trustworthy and not due to chance or sampling error. However, for age, relationship status and education the analyst failed to reject the null hypothesis of no relationship.

The results in Model 3 indicated that none of the demographic variables included in the model had a statistically significant relationship with the dependent variable, isolative coping. Therefore, the analyst failed to reject the null hypothesis of no relationship.
Summary of Statistical Analysis

The key quantitative findings of this study can be summarized as follows:

(1) Rural law enforcement officers in the sample (n = 320) reported that policing is a moderately high stressful occupation (Mean = 6.15, SD = 2.025).

(2) Three stressors were identified by respondents as the most stressful for rural law enforcement officers in this sample: “internal politics,” “external politics” and “witnessing child abuse.” On the other hand, the three stressors identified by the participants as the least stressful were “pulling over/arresting a friend,” “pulling over/arresting a relative” and “racial tension in the department.”

(3) In regards to coping mechanisms utilized by rural law enforcement officers in this sample, “listening to music” was the most frequently reported, while the least reported coping strategy by officers in the sample was “using drugs.”

(4) The principal component analysis of the 25 items identified by Scott (2004) as rural law enforcement stressors loaded 16 items into four factors:

a) “Work-itself stressors”: This factor included “amount of paperwork,” “current assignment,” “dealing with the public,” “work schedule,” and “experiencing violence.”

b) “Organizational Stressors”: This factor included “internal politics”, “department’s leadership,” “external politics,” “inadequate reward or recognition,” and “inadequate information”

c) “Community stressors”: This factor included “available firearms for public,” “off-duty contact with public,” and “problems in community.”
d) “Interpersonal-contact stressors”: This factor included “pulling over/arresting relative” and “pulling over/arresting relative.”

(5) The principal component analysis of the 12 items that represented physical and psychological manifestations of stress, anxiety and depression (Oliver & Meier, 2004) loaded 10 items into one factor, levels of anxiety and depression. This factor included: “disturbed and restless sleep,” “going to sleep with weird ideas,” “mood changes,” “hard to relax,” “getting tired easily,” “feeling sad and depressed,” “stomach trouble,” “getting upset rather easily,” “having nightmares,” and “lack of concentration on the job.”

(6) The principal component analysis of the 12 items identified by Scott (2004) as coping strategies used by rural law enforcement officers loaded the initial 12 items to 8 items with two factors.

a) “Social Coping”: This factor included “listening to music”, “going to church or pray”, “exercising”, and “doing a social activity or hobby.”

b) “Isolative Coping”: This factor included “sleeping”, “driving”, “taking days-off”, and “surfing the internet.”

(7) Results in regression Model 1 indicated that “work-itself stressors,” “organizational stressors,” “work-itself stressors,” “levels of anxiety and depression,” and race were significant predictors of the dependent variable, “levels of perceived stress.”

(8) Results in regression Model 2 indicated that “years in law enforcement,” “race,” and “gender” were predictors of the dependent variable, “social coping.”
(9) Results regression Model 3 indicated that “organizational stressors,” “inter-personal contact stressors,” and “levels of anxiety and depression” were predictors of the dependent variable, “isolative coping.”

Qualitative Analysis

In addition to the 69-item instrument developed by the researcher to investigate perceived levels of stress, stressors and coping styles of rural law enforcement officers, a section was provided to the participants to freely express, in writing, their feelings about work-related stress and policing in general. As a result, 44 respondents provided comments about rural police stress. Their comments were transcribed into digital form, analyzed, and classified by the researcher in order to identify different themes related to the main variables of the quantitative analysis: levels of perceived stress, stressors, levels of anxiety, depression, coping styles, and demographic variables of rural law enforcement officers.

Stressors in Rural Law Enforcement

Administration, internal and external politics. Some rural law enforcement officers who participated in this study offered written comments to explain how the department’s administration, internal and external politics influenced their job and levels of stress. A 15-year veteran in a municipal police department emphasized that “90% of the stress an officer has is from administration,” while a very experienced sergeant affirmed that “in rural departments it is a pain in the ass dealing with leadership that is decades behind and still under the ‘good ole boy system.’” The influence on daily operations and stress that the “good ole boy” system had was very well explained by a veteran deputy sheriff.

until recently, I worked as a city police officer. Since I joined a Sheriff’s department, I found this department to be more stressful due to the political
ramifications surrounding this position. Being in a small area makes it 10 times worse, when everyone knows the administration. It’s difficult to adequately enforce the law as a result of the ‘good ole boy’ network. Being in an elected position also contributes to poor or diminished supervision (again as a result of the ‘good ole boy’ network), lack of experience, training, and resources. Prosecuting crimes are also an issue in small rural areas due to the political ramifications and again the good ole boy network, which often leads to corruption or some form of illegal kickbacks.

Further, a Lieutenant with 23 years of experience commented “I think small town governments are too political. Favoritism and internal politics play too big of a role in every day operations.” Moreover, a 36-year-old senior patrol officer expressed his frustration with departmental politics by stating that “political influence is one of the biggest problems I deal with, I got hired to do a job but cannot do it because of politics.”

Some of the participants stated that immediate supervisors were a great source of stress. A 20-year veteran patrol sergeant pointed out that “most of the stress I have personally is from administration, especially from my immediate supervisor that makes my work and the work of those under me very hard and stressful.” A deputy sheriff explained the problems he had with his immediate supervisor “…like now, I am going through a problem with my supervisor because he is out there to get me as he thinks I said something about him to one of his friends. Now, that is stress but I pray.” Lastly, a 21-year veteran investigator concluded that “if my supervisor is stressed, all officers pay and pay.”

Other participants pointed their fingers to the actions or policies implemented by their chief of police or sheriff as their main sources of stress. A patrol sergeant vividly described that he had
great immediate supervisors but a terrible chief of police. He is only concerned with pleasing the major and commissioners but shows little concern for the
officers. Many officers, to include myself, feel that the chief plays favorites within the department, which makes me angry and stressed out.

A different patrol sergeant with 28 years of experience argued that stress is directly related to leadership in police organizations.

it is all about leadership. If you have competent leaders that care about their personnel, you have happier more content officers. The most stressful thing is having no one to go to. Most small departments do not have civil services so you are at the mercy of the chief, major and board. It is all politics. Departments’ policies are enforced at the will of the chief and according to what officer breaks what policy. Seniority means nothing.

Pay. A few participants pointed out that one of the main stressors for rural law enforcement officers is being underpaid for the service they provide to the community. A deputy asserted that:

rural law enforcement is highly underpaid. We risk our lives every day and do jobs that no one cares to do. We run toward what everyone runs away from. The compensation for the stress we endure/encounter is not sufficient.

One of the few veteran female law enforcement officers in the sample described how rural law enforcement salaries are not enough to cover all living expenses of officers.

more attention needs to be paid to law enforcement and the problems they have. Money is a big problem in small departments. I no longer work multiple jobs but the younger deputies must work 2 or 3 jobs to support their families. This is a significant stress factor.

A narcotics investigator linked family problems with low pay.

biggest problem with this job is the problem it causes at home due to the low pay law enforcement officers receive. It is an important job someone has to do it and I happen to love doing it. However, love does not pay the bills. That is definitely the largest stress factor for me and just about every officer I know.

A more experienced narcotics agent argued that low salaries are the reason why qualified individuals do not apply for policing jobs stating that the biggest problem in police departments in rural communities is “terrible pay! The pay scale is not enticing to
qualified individuals who may consider undertaking this profession. No one wants to risk their lives and be stressed to get paid close to minimum wage.

*Resources and Manpower.* The lack of resources and manpower was also cited by some of the participants as one of the primary stressors on rural law enforcement. A veteran assistant supervisor argued that

the main source of stress to agencies surrounding our jurisdiction comes from the lack of having the proper tools and manpower to do the job. Agencies are under-funded and don’t have the adequate resources to do the job properly. The stress comes in when you are covered up with cases and are rushing so quickly to close one and be able to move to the next. Not having the proper manpower to work cases or incidents is what really kills you. One man may have to wear many hats at an agency for it to function properly.

A seasoned sergeant with 25 years of experience explained the relationship between lack of manpower and stress by stating:

we don’t have enough officers at the night shift in this department. Sometimes, it is just me and another officer to cover the entire city and its surroundings, even on weekends. Sometimes, we cannot back up each other because we are tied up in other calls. That is stressful and scary at the same time. I am tired of doing the job that five officers should do.

*The Community.* The close relationship between communities and law enforcement agencies that serve and protect them seemed to have a stressful effect on some rural law enforcement officers within the sample. A deputy with six years of experience stated that “where I currently work at now almost everybody is related and when dealing with someone in the public they always throw out who are they related to at the department.

So, that is very stressful.” Another deputy recalled an incident with a well-known community member and how it affected him personally and professionally stating:

I do enjoy my job. I love working with other people. However, six months ago I arrested the son of someone very influential in the community for driving while intoxicated. I almost lost my job and my sanity. Thankfully, I do not have to worry/stress more about it and I can sleep in peace every night.
Anxiety and Depression

Physical manifestation of stress and high levels of anxiety and depression are typical occurrences for those officers that experience high levels of work-related stress. A 16-year veteran narcotics investigator best defined how stress affects officers overtime by saying, “job stress much like age comes at you slowly…Slowly enough that its damage has started before you realized. “ A 42-year-old with 17 years of experience offered a detailed explanation of how stress has affected him and how police experiences can be compared to those experienced by soldiers on combat:

in the past, I have been to see a doctor and almost every time he states that most of my problems have been stress related—i.e. high blood pressure etc. Not being able to eat healthy, not being able to spend time with family, working nights and weekend leads to divorce. Another note, military personnel that have been to war for a year come home and because of what they saw or done they are told they have PTSD. I think that law enforcement could easily suffer from this also. We see the ugly side of everyone. What the military people see in 12 to 24 months we see these things year after year up to 25 to 30 yrs. Law enforcement never get called to witness good things; we deal only with the bad. It means a lot to us to hear from people that we have done a good job or a thank you. A little bit of good goes a long way when only dealing with the bad.

Adding to the last officers’ statements, a very experienced municipal officer described how work-related stress has affected his sleeping patterns and anxiety levels stating:

after a stressful shift, I cannot sleep. When I finally fall asleep I have horrible nightmares from past experiences. I don’t want to sleep. Also, my stomach is disturbed and I feel pressure in my chest at times. I am really thinking about changing jobs but how am I going to put my two kids through college? It is a lose-lose situation.

Finally, a 45 year-old detective illustrated his experiences with work-related stress stating, “after working in certain assignments I feel exhausted. At times I get headaches and chest pains.”
Coping with Stress

One of the main goals of this study was to investigate how rural law enforcement officers cope with stress. The spillover between work and family and its relationship with stress was well-documented by a 13-year veteran criminal investigator.

In law enforcement it needs to be stressed that you leave your work at work and not bring it home because this causes problems with your spouse and kids. This means there is nothing wrong with talking to your wife about your job but keep it light and in general so you will not dwell on work problems at home.

A very experienced chief deputy in a rural sheriff’s department provided an explanation of why work-related stress affects some officers more than others, and what is the best method to deal with work-related stress.

A lot of law enforcement personnel do not know how to let things/situations go. They try to rationalize irrational behavior. I use the phrase ’it is what it is’ I do think about things/situations but not stress about them. I try to learn behaviors and actions only for experience and to have the upper hand in the next situation.

Speaking with other officers about personal and work problems is a common practice in law enforcement to deal with the stress associated with the job. A female “rookie” municipal officer explained this practice and how it made her feel.

One thing I can say is that I enjoy working with my shift. I feel secure when I am on shift. I can always count on shift to have my back regardless to the situation. Anytime I am having problems, work-related or personal, I can count on my immediate supervisors or fellow co-workers to help or listen to what is going on with me. I do not think that upper management cares about my well-being or my fellow officers.

The use of maladaptive coping strategies has been well-documented by past literature on law enforcement stress. The use of alcohol and illegal drugs as coping mechanisms has been long investigated by researchers. A K-9 deputy with six years of experience illustrated the harsh reality of dealing with work-related stress for some.
I think that the police department should do a survey just to see if any of the co-workers need any kind of help because there are many co-workers turning to drugs and alcohol to ease the pain of their problems.

A six-year veteran in law enforcement explained his own experiences coping with stress.

I wish departments provide us with some help. I was involved in a fatal shooting ten years ago and that really affected my mental stability. I started drinking at night to be able to sleep and I, sometimes, mixed alcohol with sleeping pills. I was a mess. Thank God, now I have been sober for 3 years, but I know a lot of people in this profession who drink or use drugs to escape their problems. We need help. We are humans, not robots.

For some officers, religion and/or praying are a way to cope with work related stress. A captain in a small municipal department confessed that

if it was not for praying and my brothers in the church, I will not be where I am right now. I can go to them with any of my work problems and they will listen to me without passing any judgment.

Furthermore, a narcotics agent with 20 years of experience also referred to religion as a way of coping with stress. “Most departments do not have a way to easily help officers. Having a chaplain that is involved is a big help.” Lastly, a fairly new officer complained of the lack of Christian officers in law enforcement and the double standard applied by some agencies when officers misbehave.

I wish there were more Christian officers, and less officers involved in ‘secret’ societies. It really bothers me when an officer enforces the law, then breaks it on duty or off duty. For example, arresting someone for possession or consumption of alcohol and/or drugs, then the same officer consumes alcohol or drugs.

Racial Discrimination, Gender Discrimination, and Education

Some officers in the sample expressed their concerns about racial and gender discrimination and how that affected their stress levels. A 20-year veteran with graduate-level education referred to racial discrimination as a big stressor for him and how the lack of education of some administrators affected his job.
as a whole the job is not bad but the race discrimination is the problem. We as Blacks still have to be twice as good. That stresses me out. The biggest problem is the chief of police does not have an education. How can you lead without an education?

Illustrating the relationship between gender conflict and work-related stress, a female detective described how it is to be a female in a man-controlled profession:

I am surrounded by men in the job. I am the only female in here and sometimes other male officers do not take my job seriously. Also, when I go in the street to investigate a case sometimes people do not take me seriously because I am a female. Then, my husband asks me why I am so irritable. I wish I was a cop in a bigger city with more open-minded people.

Traumatic Events

A few officers referred to traumatic incidents as sources of their stress levels. A patrol sergeant indicated that “I do at times have considerable stress related to witnessing death scenes and violence/death toward children”, while a fairly new officer wrote that he still thinks about “seeing a week old deceased body at temperatures of 90 to 100 degrees.” Perhaps, the most vivid description of a traumatic incident was given by a 16-year veteran in law enforcement who described a recent incident he was involved in and how it is affecting him:

I was recently involved in a gun fight. Although I was not injured, the deputy beside me was shot. I never have time to be scared and I am still not for myself, but I have a son who is in a coma and I am constantly thinking what if I was shot or killed and he wakes up? I cannot imagine what he will go through! I am not “afraid” to do my job—just the opposite. I may overreact next time. If someone pulls a gun on me, will I try and talk him down or just take care of business. I can’t talk to anyone about this! I just will have to wait on next time. I just hope and pray that I will have time to rationally think it through before my training and reactions take over!

In a different fashion, a 30-year veteran police administrator explained how he deals with traumatic events: “Been shot at a few times and almost stabbed. I have seen numerous
traffic fatalities and murderers and murdered bodies. I just try to put them in the back of my mind and continue on.”

_Civil Liability_

Some rural law enforcement officers in the sample described how civil liability had a negative effect in their jobs and their levels of stress. The same administrator that talked about traumatic events above explained that:

Civil liability has become one of the sources of great stress in our job and allows for the public to intervene in the performances of our job these days. Officers are afraid to perform their jobs to the best of their abilities due to worrying about the civil courts.

A very experienced sergeant who is close to retirement expressed his anger and frustration with work conditions as related to the civil liability of police officers with some recommendations for future research:

I get extremely upset when I see civil liberty organizations such as the ACLU, NWACP and other liberal organizations wanting to sue an officer. For instance, look at the recent incident in Pascagoula. The officers’ car camera shows how he suspect pulled a gun on the officer and the officer had to use deadly force. What’s never reported in the media is how many officers are losing their lives in the line of duty every day. Guns in legal law-abiding citizens’ hands are not the problem, guns in criminal hands is a major problem. Until courts’ attitude towards crime against police change, officers are going to keep getting killed because they are afraid of being sued for doing their job. An officer can be beat down and as long as there is not weapon, it is simple assault. I would like to recommend that you expand your research into officers being killed in the line of duty and why these civil liberty unions want to sue the police. You all are professors. You all have the ways and means to expand your research.

A “rookie” seemed to realize the realities of being a police officer in regard to civil liabilities as he stated that “we don’t have too many rights as police officers. It is stressful at times”, while another fairly new officer with two years of experience maintained that “I am mostly bothered by lack of support and prosecution from the general public.”
Summary of Qualitative Findings

The key qualitative findings of this study can be summarized as follows:

(1) Within the sample, law enforcement agencies’ administration and their policies were major contributors to participants’ levels of stress. Among these, participants indicated that internal and external politics, favoritism and issues with supervisors had the most effect on them.

(2) Insufficient pay and lack of resources and manpower were also contributors to officers’ levels of stress within the sample.

(3) Some participants indicated that the close ties between communities and law enforcement agencies serving and protecting them can be a source of stress for officers.

(4) Some officers provided vivid accounts of how high levels of work-related stress can contribute to severe physical and psychological manifestations of anxiety, such as high blood pressure, insomnia, stomach troubles, and chest pains.

(5) Within the sample, the negative consequences of the relationship between work, family, and work-related stress were highlighted. In addition, the qualitative analysis confirmed findings of previous literature which emphasized that officers prefer to share their personal and work-related problems with their peers instead of their families and friends.

(6) Some officers indicated that the use of maladaptive coping strategies was a common practice among officers and they highlighted the important role of religiosity on coping with work-related stress.
Some officers in the sample expressed their concerns about racial and gender discriminations and how that affected their stress levels.

A few officers made note of the important role that traumatic events have on work-related stress. Officers indicated that being involved in shootings, seeing traffic fatalities and/or murdered bodies, as well as witnessing violence negatively affected their levels of work-related stress.

Within the sample, civil liability seemed to have a negative effect on officers’ jobs and their levels of stress.

In summary, rural law enforcement officers in this sample reported moderately high levels of stress. The quantitative and qualitative findings of this study highlighted the prominent role that organizational stressors had on levels of perceived stress and coping styles among rural law enforcement officers. Quantitative findings indicated that the majority of the officers in this sample used adaptive and social coping strategies to deal with work-related stress. However, the qualitative findings uncovered that officers may have underreported the use of some maladaptive coping strategies such as alcohol and illegal drug use. Of all demographic variables included in the analysis, race, gender, and years in law enforcement seemed to have only moderate impact on officers’ perceived levels of stress and coping strategies.

In the next chapter, an in-depth discussion of both quantitative and qualitative findings will be provided, as well as the policy implications that may be derived from this study. Recommendations for further research and the limitations of this study will also be discussed.
CHAPTER V
DISCUSSION

Introduction

The study of the nature and extent of stress in law enforcement continues to be a complex and challenging task for social scientists (Paton, Violanti, Burke & Gehrke, 2009). Individual perceived levels of stress are subjective in nature and depend upon multiple physical, psychological, and environmental factors (Selye, 1976). Stress is an individual experience among law enforcement officers, thus generalizations and conclusions should not be drawn without considering the varying contexts surrounding each sample. To date, studies on law enforcement stress have used samples of officers who work in large metropolitan departments (Crank & Caldero, 1991; Oliver & Meier, 2004). This has resulted in scarce literature that focuses on rural law enforcement officers. As such, this study examined the perceived levels of stress and coping styles of rural law enforcement officers within a predominantly rural Southern state.

This exploratory study had four main goals: (1) to examine how work-related stress affects the levels of perceived stress, anxiety and depression for rural law enforcement officers; (2) to explore the specific stressors affecting rural law enforcement officers; (3) to investigate how rural law enforcement officers cope with work-related stress; and, (4) to study how individual officers’ demographic characteristics affect their levels of perceived stress, as well as their coping styles.

The main goals of this study were accomplished by administering an attitudinal survey to a convenience sample of rural law enforcement officers. This attitudinal survey was an adaptation of the Law Enforcement Work-Assessment (LEWA) survey,
developed by Dr. Yolanda Scott in 2004. The adapted LEWA survey used for this study included four scales measuring perceived levels of stress among rural law enforcement officers: physical and psychological manifestations of stress, coping styles, and sharing attitudes. In addition, demographic questions were included. A total of 320 responses were collected from 21 law enforcement agencies and data were imputed to SPSS 17.0 for statistical analysis.

Understanding the human factor related to the experience of stress within the professional setting was another important research goal of this study. As such, a section was provided to the participants to freely express, in writing, their feelings about work-related stress and policing in general. The qualitative data was organized and presented in Chapter IV. This data provided insight on how rural law enforcement officers’ stress impacts their professional and personal lives. In addition, this part of the analysis aimed to identify specific issues related to stress that could not be achieved within the quantitative analysis.

Both the quantitative and qualitative findings are discussed in this chapter, as well as the policy implications that may derived from this study. The policy implications in this chapter may be very helpful as they can provide a better understanding of the stress phenomenon and its implications in rural police organizations for law enforcement administrators. Further, recommendations for further research are offered.

Findings and Discussion

Careers in law enforcement have a longstanding reputation as being particularly stressful (Collins & Gibbs, 2003; Dantzker, 1987; Gershon et al., 2009). As first responders, law enforcement officers can potentially be exposed to gruesome incidents
daily as they are the first to respond to and witness senseless murders, suicides, drug overdoses, etc. (Gershon et al., 2002). Furthermore, environmental and organizational variables have been identified as substantial sources of stress for officers (Anshel, 2000; Gibson et al., 2001). Moreover, past literature on police stress has emphasized the negative effects that organizational stressors have on officers’ levels of perceived stress.

There is an abundance of literature on how law enforcement officers cope with work-related stress (Anshel, 2000; Lazarus & Delongis, 1983; Patterson, 2003). Law enforcement officers usually cope with work-related stress by using adaptive or maladaptive coping mechanisms (Lazarus & Delongis, 1983). Adaptive methods are generally identified with positive ways of dealing with stress (e.g. exercising or meditating), while maladaptive methods are typically associated with deviant and self-destructive activities such as using drugs and/or drinking alcohol (Patterson, 2003). Anshel (2000) also distinguished between approach coping and avoidance coping. Avoidance coping is highly associated with negative physical and psychological outcomes.

*Perceived Levels and Sources of Stress among Rural Law Enforcement Officers*

The majority of studies on police stress have employed samples of urban police officers, resulting in rural law enforcement officers being virtually ignored (Crank & Caldero, 1991; Oliver, 2001; Oliver & Meier, 2004; Scott, 2004) even though the majority of law enforcement agencies in the United States serve and protect towns and jurisdictions with less than 50,000 residents (Oliver and Meier, 2004; Scott, 2004). Additionally, police researchers have focused their efforts on identifying officers’ sources of stress rather than officers’ perceptions of stress. Due to the lack of literature on rural
law enforcement stress, the findings of this study can only be compared with two of the most recent and more significant research efforts on rural law enforcement officers stress: Oliver and Meier’s (2004) study of stress among West Virginia rural police officers and Scott’s (2004) study of stress among Pennsylvania’s rural law enforcement officers.

Perceived levels of stress. Within this sample, law enforcement officers reported the stress inherent to the policing profession to be moderately high (\(Mean = 6.15, SD = 2.02\)). Forty-five percent of the rural law enforcement officers in the sample reported levels of stress related to policing above the mean, while 25% considered policing as a very stressful occupation. Oliver and Meier (2004) reported that 43% of the officers in their sample felt that their job was significantly more stressful than those of their friends. In addition, they noted that when officers were asked to rate their levels of stress in relation to their occupation, 61% reported stress levels higher than the mean. Furthermore, Scott (2004) reported that 55% of the officers in her sample stated that their work environment was highly stressful in comparison with three other dimensions: community, family and friend environments. Thus, the results of this study, compared to Oliver and Meier (2004) and Scott (2004), indicated that stress among rural law enforcement officers is moderately high.

Organizational stressors and perceived levels of stress. Stress and reactions to it are a unique occurrence to each individual. As such, individual sources of stress vary from person to person, as well as the reactions derived from the exposure to strain (Seyle, 1976). Past literature has identified organizational stressors, personal stressors, and environmental stressors as the main sources of stress in law enforcement (Abdollahi, 2002; Anshel, 2000; Kop et al., 1999; Shane, 2010; Slate et al., 2007; Zhao et al., 2003).
Police researchers have concentrated their efforts on investigating how organizational, personal, and environmental variables affect perceived levels of stress among law enforcement officers. There is however a consensus among law enforcement researchers of that organizational variables have a negative impact on law enforcement stress levels (Shane, 2010; Stinchcomb, 2004).

The findings of this study confirmed previous studies’ results, which indicated that organizational variables appeared to be the main source of stress for law enforcement officers (Shane, 2010; Stinchcomb, 2004). In fact, rural law enforcement officers in this study indicated “internal politics within the department” as their main stressor. Furthermore, statistical regression (model 1) revealed that two factors—“work-itself stressors” and “organizational stressors”—had a statistically significant correlation with the dependent variable, levels of perceived stress. That is, the stressors “amount of paperwork,” “current assignment,” “dealing with the public,” “work schedule,” “experiencing violence,” “internal politics,” “department’s leadership,” “external politics,” “inadequate reward or recognition,” and “inadequate information” had a significant and positive effect on levels of perceived stress. Consequently, the more prominent these stressors were, the higher the levels of perceived stress among the officers surveyed.

When comparing the results of this study to the findings of Scott (2004), some parallels can be observed between rural law enforcement officers in the two samples. Scott (2004) concluded that one of the scales she used to reflect organizational stressors, “administrative changes,” had a positive and significant effect on their levels of stress. As such, Scott (2004) argued that
officers anticipate that changes to the department’s top administration will interrupt, perhaps indefinitely, their career goals and will fail to improve their treatment within the department. Stress streaming from the work itself or inherent aspects of the job such as work schedule, assigned duties, and amount of paperwork was also significantly increased by perceived disruptive administrative changes. (p. 252)

There are two possible explanations to understand the significant effect of organizational variables on perceived levels of stress among law enforcement officers in this study. The first possible explanation is that rural law enforcement agencies are smaller in size. Thus, due to lack of personnel, smaller departments may require officers to perform multiple tasks. As such, the amount of paperwork and other administrative tasks coupled with their official duties may prove too overwhelming for individual officers. Furthermore, it may be hypothesized that certain officers, due to their social standing within the department, may not contribute their fair share to administrative and operational tasks affecting the workload of fellow officers.

The second possible explanation is that smaller law enforcement agencies have a “close-knit” organizational structure. Although internal politics, nepotism, and cronyism may be present in big or small police organizations, law enforcement administrators in small agencies may seemingly be more prone to favor certain officers due to political and social obligations with certain community members. In addition, as the relationship between the community, its political figures and law enforcement are usually very close in small communities, law enforcement administrators may succumb to external pressures resulting in biased organizational and operational decisions. This may be perceived as “unfair” by certain officers affected by such decisions, thus only increasing their levels of stress.
Results from the qualitative analyses in this study demonstrated that internal politics, external politics and favoritism may play an important role in rural law enforcement officers’ levels of stress (see Chapter IV). The qualitative analyses also uncovered an important source of stress for rural law enforcement officers: low pay. In a study funded by the Bureau of Justice Statistics, Reaves (2010) reported that the average salary for patrol officers in towns with less than 50,000 residents ranged from $26,600 to $55,500 depending on the size of the town. According to the Social Security Administration (2010), the average salary of an American full-time employee in 2010 was $41,673. As such, a high percentage of rural law enforcement officers, especially those in very small jurisdictions, may earn below that average. Thus, the majority of the officers in the sample was married and had families to support. It is likely to conclude that their salaries were not adequate to cover all living expenses. In fact, a number of officers reported working second jobs in order to provide for their families. In addition, officers expressed that law enforcement is a dangerous profession because they are exposed to events and circumstances that the majority of people would not want to face. Therefore, officers believed they should receive higher monetary remuneration in light of the nature of their work. Arguably, all these factors associated with low pay contribute to higher levels of physical and emotional strain.

*Levels of anxiety and depression and levels of perceived stress.* Levels of anxiety and depression were found to have a positive and significant effect on levels of perceived stress among rural law enforcement officers in this study. That is, the more prominent physical and psychological effects of stress an officer had, the higher levels of perceived stress he or she reported.
After conducting principal component analysis of the 12 items included in the survey instrument to measure possible physical and psychological manifestations of stress, 11 items were grouped into one factor. Thirty-nine percent of the officers in this sample indicated that “they were happy” frequently or most of the time, while only 13.5% of the officers indicated that “they were almost never or never happy.” A minority of officers indicated that they had, frequently or most of the time, problems relaxing (13.5%) and they suffered, frequently or most of the time, from mood changes (11.2%), sleep problems (18.4%), and problems with their stomach (12.5%). Only 13 officers (.04%) indicated that they feel depressed or sad on a regular basis. In addition, qualitative findings revealed that some officers suffered from chest pains, fatigue, and headaches after a stressful day at work.

The quantitative and qualitative findings of this study were similar to previous findings in the literature which indicated that stress innate to police work can produce negative physical and psychological effects (Carlan & Nored, 2008; Gershon et al., 2002; Lieberman et al., 2002; Neylan et al., 2002; Olson & Surrette, 2004). As each individual’s experiences with stress are unique, it is difficult to discern why some individuals suffer more psychosomatic symptoms than others. One plausible explanation for this phenomenon was delineated by Selye (1976) who argued that individual’s reactions to stress vary due to their unique perceptions of situations. Specifically, what is stressful for one person may be normal for another one. In addition, Selye (1976) stated that genetically speaking, different individuals have different levels of resilience and adaptation to stress and its psychosomatic effects.
**Race and Perceived Levels of Stress.** Race was found to have a negative and significant relationship with perceived levels of stress. To this extent, non-whites reported having less stress than whites by 10.2%. This finding contradicts the majority of the past literature that indicated minority law enforcement officers suffer from more work-related stress than whites (Bolton, 2003; Dowler, 2005; Hassel & Brandl, 2009). However, this finding is similar to Dowler’s (2005) and He et al. (2005) findings that black officers were not more stressed than white officers.

One possible explanation for this finding is that whites were overrepresented in this study, comprising 74.1% of the sample. Conversely, 22.2% of the officers in the sample were black, while other races represented only 3.7% of the the sample. A second explanation for this finding may be that blacks have historically struggled to overcome adversity and to find equality in the workplace, particularly in southern states. Thus, blacks may be able to cope with stress better in the workplace than whites or “other races.”

It is important to note that neither Scott (2004) nor Oliver and Meier (2004) found personal characteristics to be predictive of levels of stress among rural law enforcement officers. Thus, Scott (2004) concluded that “it appears that stress largely originates from factors in the rural and small-town patrol officers’ working environment than from the personal attributes” (p.254).

**Social and Isolative Coping**

There is a great body of literature in police stress that has concentrated on how law enforcement officers cope with work-related stress. Past studies have indicated that officers tend to deal with stress using one of two methods: adaptive and maladaptive
coping strategies (Anshel, 2000; Beehr et al., 1995; Patterson, 2003). Adaptive coping strategies may include meditation, relaxation, religious activity, physical exercise and other similar activities as well as a strong social support (Beehr et al., 1995; Patterson, 2003), while maladaptive coping strategies may include using alcohol, drugs and engaging in antisocial attitudes and high-risk behaviors (Anshel, 2000; Band and Manuele, 1987; Beehr et al., 1995; Violanti, et al., 1985).

From this perspective, most rural law enforcement officers in this study used adaptive coping strategies to deal with stress. In fact, officers indicated that when stressed they listened to music (41%), engaged on a hobby or social activity (34.6%), and prayed and/or went to church (36%) “frequently” or “most of the time.” Only a very small minority of rural law enforcement officers in the sample admitted to using alcohol (.05%), drugs (.01%) or abusing prescription medication (.01%) frequently or most of the time.

These findings have two plausible explanations. First, as law enforcement officers are an integral part of their rural communities and rural communities are commonly mechanical in nature (Durkheim, 1893), their social and community responsibilities may discourage them from engaging in self-destructive coping mechanisms such as alcohol or drug use. Thus, by engaging in these kinds of behaviors they may lose the respect of other community members. In addition, according to Oliver and Meier (2004), law enforcement officers are highly scrutinized in small towns and rural communities by the public. They referred to this phenomenon as the “fishbowl” effect. This lack of anonymity may very well be a deterrent to rural officers that might otherwise engage in maladaptive coping strategies.
Another possible reason was uncovered from the comments provided by some of the rural law enforcement officers in the sample. Although anonymity and confidentiality was guaranteed by this researcher, some officers expressed fear that superiors may open the surveys and read their answers. It may be reasonable to conclude that some officers hesitated at the time of truthfully answering questions that, in their eyes, may have negative implications for their professional standing in their respective departments.

After conducting a principal component factor analysis on the 14 items included in the survey as possible ways to deal with stress, coping mechanisms loaded on two factors: social coping and isolative coping. The social coping factor included “listening to music,” “going to church or pray,” “exercising,” and “doing a social activity or hobby.” Conversely, the isolative coping factor included “sleeping,” “driving,” “taking days-off,” and “surfing the internet.” It is important to note that the researcher, after conducting the principal component factor analysis, realized that the dimensions of the two factors did not coincide with those indicated in the prior literature. As such, a change of focus was necessary in order to provide a theoretical framework to the two identified dimensions. Therefore, the researcher concentrated on whether rural law enforcement officers choose to cope with stress by engaging in social activities (social coping) or by themselves (isolative coping).

Social coping. The statistical regression analysis (model 2) revealed that “race” and “gender” were found to have a positive and significant relationship with the dependent variable, social coping. Moreover, the regression analysis indicated that “years in law enforcement” had a negative and significant relationship with the dependent variable, social coping.
In regards to the independent variable “race,” non-whites used more social coping than whites. This finding may be directly related to the perceptions and realities of black law enforcement officers in rural law enforcement organizations, especially in Southern rural communities. Violanti and Aaron (1995) found that one of the main stressors for black officers in their sample was the lack of support they received from all the levels in the department. Rural law enforcement officers within this sample may have felt the same way and engaged in social activities outside the department to deal with their stress. In addition, comments provided by some officers in this study implied that black rural law enforcement officers may view religion as a way to cope with their stress. In fact, some of them reported praying and talking to their pastor as a way to cope and deal with their problems.

Within this sample, female rural law enforcement officers also used more social coping strategies than males. Considering social coping strategies as positive ways of coping with work-related stress, this finding may correspond with those of He et al. (2002) who found that female officers used constructive coping strategies more often than males. Specifically, female officers relied on religion and prayer, talking to spouses, and developing a plan of action to deal with stress and following the plan more often than male officers in their sample (He et al., 2002). With regard to social coping and gender, however, the findings of this study contradict those of Ortega et al. (2007) and Violanti et al. (2011). Ortega et al. (2007) did not find a significant relationship between gender and coping styles within their sample. Moreover, Violanti et al. (2011) found that younger female officers in their sample used more alcohol to cope with stress than older females. Violanti et al. (2011) argued this may be because younger female officers may try to
imitate the male police role and male patterns of alcohol consumption to be accepted in the police subculture.

The fact that female rural law enforcement officers in this sample used social coping strategies more frequently than male officers may have two explanations. First, this finding may be influenced by the fact that only 27 rural female officers participated in this study (8.4%). Secondly, as women are usually responsible for the majority of household chores and child-bearing activities (Dowler & Ara, 2008), it is possible that female officers have neither the opportunity nor the desire to engage in self-destructive behaviors.

Years in law enforcement was found to have a negative effect on the dependent variable, social coping. That is, the younger the officer was, the more social coping strategies he or she would use. This finding does not correspond with previous literature (Larsson, Kempe, & Starrin, 1998; Patterson, 2003). For instance, Larsson et al. (1998) concluded that younger officers tend to get more emotionally involved and to perceive stressful situations as more complicated and taxing than older officers. Consequently, younger officers in their study reported anger as a coping mechanism. In addition, Patterson (2003) found that older officers used more positive coping mechanisms than younger officers and reported less stressful incidents during their daily work routine.

*Isolative Coping.* The statistical regression analysis (Model 3) indicated that “organizational stressors,” “inter-personal contact stressors,” and “levels of anxiety and depression” had a positive and significant relationship with the dependent variable, isolative coping.
“Organizational stressors” were found to be positively related to the dependent variable, isolative coping. As such, the more prominent the perceptions of organizational stressors were, the more frequently isolative coping strategies were reported to be employed. The direct relationship between organizational stressors and levels of perceived stress among law enforcement officers has been well-documented (Anshel, 2000; Kop et al., 1999; Slate et al., 2007; Shane, 2010; Zhao et al., 2003). Past literature, however, has failed to directly link directly organizational stressors with officers’ coping styles both in urban and rural environments. For instance, Scott (2004) asserted that organizational stressors were “among the most problematic for officers” (p. 255) within her sample of rural law enforcement officers. Scott (2004), however, found no significant relationship between coping styles and organizational stressors.

An argument can be made that the positive relationship between perceived organizational stressors and isolative coping styles in this study may be due to the fact that rural law enforcement officers responded to the organizational strains by isolating themselves from social and community activities as law enforcement agencies and officers in rural areas and are an intrinsic part of the social fabric of the community. Officers, supervisors, and administrators interact every day both at work and outside work at community events. It is plausible to assert that when a work conflict arises, some law enforcement officers may withdraw from social activities in order to prevent interaction with other officers they might be in conflict with.

The factor, “inter-personal contact stressors” was a factor that comprised two stressors originally included in the survey. These were “pulling over/citing a friend” and “pulling/over citing a relative.” This factor was found to have a significant effect on the
dependent variable, isolative coping. That is, the more pronounced perceptions of inter-
personal contact stressors were, the more prevalent isolative coping strategies were
reported. Pulling or citing a relative and/or a friend are stressors that have only been
found these two items significantly associated with their stress or coping scales.

There may be a plausible explanation for the significant effect that inter-personal
contact stressors had on isolative coping strategies in regression Model 3. If a rural law
enforcement officer comes in contact with a friend or relative who is breaking the law
during his or her shift, it is reasonable to infer that if there is a negative outcome for both
the officer and the friend or relative. Thus, the friend or relative may view the officer as a
“bad friend” or “bad brother,” etc. This may put the officer in conflict with his or her
family, as well as some members of the community. As a consequence, the officer may
experience higher levels of stress, and he or she may withdraw from social activities that
involve his or her family and/or other community members. Therefore, he or she may use
more non-social outlets to deal with stress.

The factor “levels of anxiety and depression” was found to be a significant
predictor of the dependent variable, isolative coping strategies, meaning the higher the
reported levels of anxiety and depression, the more often isolative coping strategies were
reported. This finding is consistent with previous studies (Gershon et al., 2009; He et al.,
2002; Violanti, 1992). For instance, Gershon et al. (2009) found that “officers reporting
high work stress and who relied on avoidant coping were more than 14 times more likely
to report anxiety and more than times more likely to report burnout than were officers
who did not rely on avoidance as a coping mechanism” (p. 284).
In light of this finding, it is reasonable to understand why officers suffering from high levels of anxiety and depression may use isolative coping strategies to manage stress. For instance, depression is a mental illness whose symptoms include stomach trouble, lack of sleep and, more importantly, becoming withdrawn or isolated (Beck & Alford, 2009). For example, the desire of becoming isolated may be conducive to engaging in activities that do not require social interaction, such as “sleeping” or “surfing the internet.” In addition, it may reasonable to assume that isolative coping strategies may also have a positive impact on levels of anxiety and stress. That is, the more an individual becomes isolated due to depression and anxiety, the more isolative or non-social activities he or she would engage in. Thus, the more an individual engages in isolative coping mechanisms, the higher the levels of depression and anxiety he or she may experience.

Implications

The findings of this study have four noteworthy implications. First, rural law enforcement officers reported moderately high levels of perceived stress; 45% reported levels of stress above the mean, while 25% considered policing as a very stressful occupation. Similar to previous studies, rural law enforcement officers may be just as stressed as their urban counterparts (Oliver and Meir, 2004; Scott, 2004). This finding may have important implications for rural law enforcement administrators. Because manpower and resources are scarce in rural and small-town law enforcement agencies, officers experiencing moderate or high levels of stress may pose a risk for the agency and may jeopardize the accomplishment of operational goals. A small agency with 10 officers, for example, cannot afford to have officers unable to work at their full mental
and physical capacity as their community depends highly on them for its safety. One “bad apple in a small box” can create issues that affect both office morale and organizational effectiveness.

Second, in this sample, organizational stressors had a significant positive effect on perceived levels of stress and coping among rural law enforcement officers. This finding supports prior research findings on police stress and is similar to results found in previous research conducted in large metropolitan and/or suburban law enforcement agencies (Scott, 2004). As stated before, this finding may have important implications for rural law enforcement administrators. Rural law enforcement administrators should be aware of this significant relationship as stressors stemming from organizational management may have a direct effect on job performance, as well as the physical and mental well-being of rural law enforcement officers.

In terms of job satisfaction, 35% of the officers in this sample reported being “happy” in their personal and professional lives. A small percentage of officers, however, indicated having very serious physical and/or psychological effects of work-related stress, such as disturbed sleep, mood changes, stomach problems, fatigue and/or problems relaxing. Officers suffering from such acute stress-related problems may become a liability for themselves, their families, and their agencies. This finding has direct implications for law enforcement administrators, middle management, and first-line supervisors as they should work to identify and assist those officers struggling with stress. In addition, this finding highlights the importance of open communication in law enforcement agencies among officers, supervisors and administrators. Officers with
stress-related illnesses should not have any barriers to discussing problems regarding their personal well-being, its agency and the community they serve.

Lastly, the vast majority of rural law enforcement officers in this study reported using positive coping strategies to deal with work-related stress. Social coping strategies such as going to church and/or engaging in a hobby/social activity helped rural law enforcement officers in this sample to cope with the strains of policing. To this extent, rural law enforcement administrators should consider promoting pro-social coping strategies and activities in their agencies to fight work-related stress.

Policy Implications

Few would argue with the fact that police work is stressful. The management of stress is critical to the mental health of police officers. Thus, monitoring and preserving the mental health of law enforcement officers is critical for police organizations, as well as for the quality of services that metropolitan and rural communities expect and require. The responsibility of supporting officers in the management of their mental health should be a primary concern not only to police administrators but also to government officials, police unions, and the greater social communities they serve.

Formal organizations have historically ignored the effects of management on employees’ stress levels. A new paradigm has been developing in recent years to create organization-centered approaches to confront the most prominent organizational stressors that negatively impact levels of perceived stress among both urban and rural law enforcement officers. The basic premises of these approaches are: 1) personal stress is often the symptom of an unhealthy workplace; and 2) the best stress management approach is to identify the organizational stressors, eliminate them, and work in harmony
with the employees in developing a healthy workplace environment” (Ayers, 1990, p. 35).

Ayers (1990) identified the most prominent organizational stressors that negatively impact levels of perceived stress of both urban and rural law enforcement officers. These included the hierarchical quasi-paramilitaristic model, poor supervision, lack of employee input into policy and decision-making, excessive paperwork, lack of administrative support, role conflict and ambiguity, inadequate pay and resources, adverse work schedules, boredom, and unfair discipline, performance evaluation and promotion practices. Ayers (1990) advocated for the development of management strategies that would mitigate the effect of organizational stressors, “treating the causes instead of merely the effects of stress” (p.15).

In order to make organizations more officer-friendly, Ayers (1990) proposed seven management strategies that police managers and administrators should implement in their organization. These strategies are “1) examining the workplace; 2) believing in the mission; 3) living the organizational values; 4) encouraging upward communication; 5) pushing autonomy down; 6) ensuring fairness and avoiding politicking; and 7) caring about people” (p. 35). These strategies can be used to confront old management styles that degrade officers, purposely produce task ambiguity, and try to eliminate from policing some of its most effective and nourishing functions (Ayers, 1990).

Like Ayers (1990), Stinchcomb (2004) argued that while individual strategies of combating stress reduce the impact of stress, they are deficient because they do not address organizational shortcomings and focus on the symptoms rather than the causes. Stinchcomb (2004) contended that police agencies deal with stress in a reactive manner,
meaning only when the officer reports suffering from stress, they are referred to counseling and/or training. Furthermore, failure to address the causes of organizational stressors limits stress reduction among officers and detracts from their ability to serve and protect their community.

Stinchcomb (2004) proposed several administrative and managerial practices to combat stress within police organizations. These were: (1) train supervisors and administrators in effective management techniques, specifically supervisors and administrators who need to develop greater awareness of how their decisions and actions can be a source of stress for others; (2) supervisors and administrators need to listen closely to their employees to prevent cynicism, build esteem, and promote self-worth; (3) decentralize management authority and involve employees in the decision-making process; and, (4) concentrate on team-building, problem solving and resolving organizational conflicts in an orderly fashion (Stinchcomb, 2004).

The findings of this study highlighted the negative effects that organizational stressors have on rural law enforcement officers’ perceived levels of stress. Rural law enforcement administrators have the responsibility to address organizational problems that may affect officers’ performance and the delivery of services of a specific police agency. Ayers (1990) and Stinchcomb (2004) proposed that organizational stressors should be contested with drastic changes on the culture and managerial practices in rural and metropolitan law enforcement organizations. Particularly, departing from the paramilitary law enforcement model and embracing a participatory management style (Slate et al., 2007) may arguably lessen the stress levels of law enforcement officers.
However, as drastic managerial and structural changes are unlikely to occur in the short-term other alternatives have to be taken into consideration.

A viable alternative is increasing the managerial training of rural law enforcement’s first-line supervisors and administrators. In 2010, the International Association of Chiefs of Police (IACP), with the support of the Bureau of Justice Assistance, U.S. Department of Justice, introduced the Leading by Legacy Program Leadership and Management Training for First Line Supervisors, Command Staff and Executives from Rural Law Enforcement Agencies. This program was created to “meet the unique challenges and needs of rural law enforcement as the agencies strive to provide quality services to the communities” (The Police Chief, 2010, n.p.). As the IACP has been involved in providing management education to rural law enforcement agencies for the last 10 years, its staff has gained considerable experience and understanding the resource limitations rural law enforcement agencies face, especially in tough economic times. According to the IACP, “These limitations can require officers to assume multiple responsibilities for which they may feel ill equipped. Often, the chief executive feels this strain most acutely, which can lead to frequent changes in leadership and a lack of stability within the department” (The Police Chief, 2010, n.p.). The Leading by Legacy Program can help first line supervisors, command staff and executives from rural and law enforcement agencies to develop appropriate managerial and leadership strategies to promote agency stability and strengthening relationships between leaders and officers (The Police Chief, 2010).

Furthermore, law enforcement administrators should purge their organizations from the negative effect that internal and external politics may have in their officers. This
may be difficult in rural areas and small-towns, as police organizations are highly enmeshed with the community and affected by relationships with various political entities. As demonstrated by the findings in this study, however, the negative influence of external social and political forces in police operations must be controlled in order to provide officers with more stability within the department and the community. Internal politics is an organizational phenomenon that is difficult to eradicate, yet rural police administrators and first-line managers have the responsibility to eliminate favoritism and cronyism from their organizations. This can be achieved by establishing clear policies, guidelines and regulations highlighting the roles of each member of the organization, their rights and responsibilities.

This study also identified some of the problems that rural law enforcement officers experienced in coping with work-related stress. Although the majority of the officers in the sample appeared to be capable of coping with work-related stress in a positive and social manner, some officers appeared to have problems channeling work-related stress in positive manner. To this extent, rural law enforcement administrators should consider implementing effective programs that not only address personal and organizational stressors in policing, but also help officers successfully cope with work-related stress.

Gershon et al. (2009) suggested the implementation of police peer support programs to deal with police stressors and strengthen positive coping strategies. These programs are based on the idea that “peers are in the best position to assist other peers in recognizing and acknowledging work-related stress and facilitating an intervention if necessary” (p. 285). These programs are staffed with well-trained officers enlisted from
the agency they serve, who are available to help their peers in dealing with work-related and personal problems. Although there is only anecdotal data of the success of such programs, Gershon et al. (2009) argued that departments that have implemented peer support programs “are less likely to experience high turnover and poor relations with the general public” (p.285).

It is important to note that peer support programs should be revised and tailored to the specific needs of rural law enforcement agencies because of their lack of economic and manpower resources that are necessary to fully implement such programs. Although it is clear that rural law enforcement agencies would benefit from peer support and/or mental counseling programs to address work-related stress and its consequences, it is critical for researchers and police administrators to take into consideration the dual role that rural law enforcement officers have as law enforcers, as well as active citizens in the communities they serve and protect (Scott, 2004).

Recommendations for Future Research

Even though the majority of police organizations in the United States serves and protects communities and areas with less than 50,000 residents, stress among rural and small-town law enforcement officers has not received the necessary attention by police and other social science researchers (Reaves, 2010). Officers in rural communities are not immune to the stress that is intrinsic to policing and to its gruesome physical and psychological after effects. Consequently, federally-funded research needs to be conducted to investigate how officers in rural communities perceive their levels of stress and cope with such stress. Such studies should be conducted using a national sample of agencies as regional characteristics may have an impact on officers’ levels of stress and
coping styles. This sample should be stratified in nature in order to include women and minorities, as they may have varying experiences with stress and coping styles. Furthermore, the sample should include truly small-town and rural agencies as indicated by Oliver and Meier (2004).

The findings of this study suggest that further research on the effects of organizational stressors on perceived levels of stress and coping styles on rural law enforcement officers needs to be conducted. Thus, the impact of different leadership and managerial styles on perceived level of stress and coping styles in rural law enforcement agencies should be further explored. In addition, the effects that the police culture has on levels of stress among rural law enforcement officers should be investigated. Officers who have reported mental health problems are usually seen as “weak” and stigmatized by their peers. This label may very well result in officers’ avoidance in reporting high levels of stress or other personal and organizational problems. This may have a negative effect on officers’ mental well-being and their performance in the field (Pasillas, Follette & Perumean-Chaney, 2006).

Stress is an individual experience and survey instruments may not provide researchers with specific details of the nature and extent of law enforcement stress in rural areas and small-towns, therefore, it may be beneficial to use a qualitative approach to investigate this very unique phenomenon. Oliver and Meier (2004) recommended using personal interviews and focus groups to acquire a stronger knowledge of the factors related to police stress in rural environments. It may be argued that conducting in-depth interviews with municipal officers or sheriff’s deputies may give police researchers and rural law enforcement administrators a better sense of how stressors affect these
professionals at the personal and professional level. In addition, interviews with rural law enforcement administrators and middle-managers may highlight what organizational and managerial practices and approaches have more or less significance and effect on officers’ work-related stress.

Limitations

The first limitation of this study was the use of a self-report instrument to collect the data. The fact that survey research relies heavily on self-report data may have influenced the reliability and validity of the study, as self-report data is highly affected by the respondent’s memory and honesty when answering questions in a survey instrument (Maxwell & Babbie, 2008). For instance, some rural law enforcement officers may have misrepresented his/her real feelings and/or opinions when asked questions that could be perceived as “sensitive” or personal such as the use of drugs or alcohol as a way to cope with stress.

A second limitation of this study is its cross-sectional design. Data were collected at one point of time from a sample of rural law enforcement officers. Cross-sectional designs suffer from lack of explanatory power as they can be influenced by environmental factors that cannot be controlled by the researcher (Salkind, 2003). This survey was distributed during an election year in a southern state. All elected sheriffs were up for reelection which may have influenced both the level of perceived stress of deputies and their perceptions of factors influencing their stress. In addition, stress in policing may be better understood as a dynamic process, thus it may be better studied and analyzed with a longitudinal design (Folkman et al., 1986). This study in rural law
enforcement stress can be better understood as a “snapshot” into the world of rural policing, as well as the stress rural law enforcement officers experience in their lives.

The size and purposive nature of the sample in this study may have affected the external validity of this research. Therefore, the findings of this study should be taken with caution and generalizations made about the stress of officers in other states’ rural and small town agencies should be limited. Additionally, black and female officers were underrepresented in the sample, while white, married males were overrepresented in the sample. Consequently, demographic variables on the dependent variables in each model may have been affected by the demographic characteristics of the sample. Specifically, it has been documented that males and females report vastly different perceived levels of work-related stress. Also, females have reported to be affected by a different set of stressors than males (Wexler & Logan, 1983). To this extent, if the sample used in this study contained more females, an argument can be made that the results may have been different. Finally, only a few (N=44) officers provided comments.

The qualitative data obtained from the participants in this study also presented several limitations. First, the findings of the qualitative analysis cannot be generalized to other rural law enforcement officers or other rural/small town agencies, as they may be unique to the people who voluntarily provided their opinions in writing. Second, qualitative data in this study may have lower credibility than quantitative data because within the social sciences quantitative research is more prominent than qualitative research (Maxwell & Babbie, 2008). To this extent, quantitative findings may have more credibility with police administrators and policymakers. Lastly, in its totality, the qualitative findings of this study may not be considered objective. This is because the
researcher was subjectively involved in both the analysis of the data and the interpretation of the results.

**Closing Remarks**

This exploratory study was conducted to investigate the effects the levels of perceived stress and coping styles on law enforcement officers protecting and serving towns and counties of less than 50,000 residents in a southern state. The findings of this study demonstrate that rural law enforcement officers reported having moderately high levels of stress. In addition, the majority of officers in this study used positive and social strategies to cope with work-related stress, however, a nominal but substantial number of officers seemed to use non-social coping strategies that may be considered negative or maladaptive in some cases. Furthermore, organizational stressors seemed to have the highest effect on levels of perceived stress of officers in the sample. Qualitative analyses further confirmed this finding highlighting the negative effect that internal politics, external politics, low pay, and conflicts with management had on officers’ stress levels. Organizational stressors seem to have a negative effect in both small and large law enforcement agencies as underlined in past police stress literature (Anshel, 2000; Stinchcomb, 2004; Shane, 2010).

The findings of this study have both policy and managerial implications for rural law enforcement administrators. Dealing with organizational stressors that negatively affect officers’ levels of stress should become one of the main priorities of command staff and executives in rural law enforcement agencies. Furthermore, rural law enforcement administrators should consider implementing programs and strategies in their departments to effectively prevent and deal with work-related stress. These programs and
strategies must also develop and strengthen new and existent positive coping styles among officers. The importance of dealing with organizational stressors and the development of positive coping strategies among officers have been reflected on the existent literature on law enforcement stress (Crank & Caldero, 1991; Morash et al., 2006; Storch & Panzarella, 1996). For instance, Morash et al. (2006) concluded that

To the extent that police organizational culture and the structure and practices of police departments create stressors, efforts aimed at how officers treat each other and their control over activities would be most effective. Efforts to reduce the predictors of stress must be coupled with facilitation of officers’ use of effective coping. However, even if officers use the most effective for coping with workplace problems, police departments bear the burden of reducing and eliminating the workplace conditions that contribute to stress. (p. 37)

While this study contributed to the limited literature on rural law enforcement stress, further research must be conducted to investigate the nature and extent of rural law enforcement stress. Rural and small-town police agencies are the backbone of American policing. The negative effects of stress on rural policing cannot be underestimated. Stress is a killer. It kills individuals and if not managed, it can kill organizations, have substantial negative effects on the community, and determine the quality of life in small-town, rural America.
APPENDIX A

INSTITUTIONAL REVIEW BOARD APPROVAL

THE UNIVERSITY OF SOUTHERN MISSISSIPPI

Institutional Review Board
118 College Drive #5147
Hattiesburg, MS 39406-0001
Tel: 601.266.6820
Fax: 601.266.5509
www.usm.edu/irb

HUMAN SUBJECTS PROTECTION REVIEW COMMITTEE
NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Human Subjects Protection Review Committee in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the "Adverse Effect Report Form".
- If approved, the maximum period of approval is limited to twelve months. Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 11071103
PROJECT TITLE: An Examination of Perceived Stress Levels and Coping Styles among Rural Law Enforcement Officers

PROPOSED PROJECT DATES: 07/01/2011 to 07/01/2012
PROJECT TYPE: Dissertation
PRINCIPAL INVESTIGATORS: Marcos Luis Misis
COLLEGE/DIVISION: College of Science & Technology
DEPARTMENT: Criminal Justice
FUNDING AGENCY: N/A
HSPRC COMMITTEE ACTION: Expedited Review Approval
PERIOD OF APPROVAL: 07/18/2011 to 07/17/2012

Lawrence A. Hosman, Ph.D.
HSPRC Chair

[Signature]

1-20-11
Date
APPENDIX B

PERMISSION TO USE THE L.E.W.A. SURVEY

Roger Williams University
School of Criminal Justice

March 13, 2011

Mr. Marcos Misias
School of Criminal Justice
University of Southern Mississippi
118 College Drive #5127
Hattiesburg, Mississippi 39406

Dear Mr. Misias:

I write in response to your request to use my Law Enforcement Work-Assessment (LEWA) survey questionnaire for your dissertation thesis. Please be informed that while I authorize your use of the attached LEWA questionnaire (in whole or in part), permission is granted upon two conditions: first, that you are the sole user of the instrument and will not share it in any form with anyone for their use. And second, that you provide a clear written credit line in your completed thesis that indicates something along the following:

“The survey instrument utilized in this study is the intellectual property of Yolanda M. Scott, Ph.D. Copyright © 2002. All rights reserved. Whether in whole or in part, it shall not be copied, reprinted or reproduced without first securing expressed written permission from Yolanda M. Scott.”

If you desire any further information, please feel free to contact me anytime.

Sincerely,

Yolanda M. Scott

Yolanda M. Scott, Ph.D.,
Associate Professor
yoscott@rwu.edu
APPENDIX C
SURVEY INSTRUMENT

Note: Parts of the survey instrument utilized in this study are the intellectual property of Yolanda M. Scott Ph.D. Copyright © 2002. All rights reserved. Whether in whole or in part, it shall not be copied, reprinted or reproduced without first securing expressed written permission from Yolanda M. Scott.
**QUESTION 1**

From 0 to 10, how would you rate the stress inherent within your job? Circle a number.

<table>
<thead>
<tr>
<th>Stress</th>
<th>0 1 2 3 4 5 6 7 8 9 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>High</td>
</tr>
</tbody>
</table>

**QUESTION 2**

Which of the following areas are sources of stress for you? Circle the number that best describes the level of your strain/stress from 0 (No stress) to 10 (High Stress).

<table>
<thead>
<tr>
<th>Possible Sources of Strain/Stress</th>
<th>No Stress</th>
<th>High Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate reward or recognition</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>Discrimination</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>Quality of immediate supervision</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>Public Concerning Work of Others</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>Availability of Firearms among the Public</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>Internal Department Politics</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>External Political Influence</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>Emphasis on computers</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>Inadequate communication</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>Physical stress</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>Mental stress</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>Impact of the job on my family</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>Interactive violence</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>Witnessing child abuse</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>Malignant growth</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>Work schedule</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>Amount of paperwork</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>Dealing with the public</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>Contact with sick or others</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>Contact with out of town</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>Time/distance for back up to arrive</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>Pulling over, amending or citing a relative</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>Pulling over, swearing or citing a friend</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>QUESTION 3</td>
<td>QUESTION 4</td>
<td></td>
</tr>
<tr>
<td>-------------</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td>The following statements represent possible physical and psychological manifestations of stress. Circle the number that best describes your experiences from 0 &quot;Never&quot; to 10 &quot;Most of the Time.&quot;</td>
<td>When you are feeling tense or stressed, what do you do? Circle the number that best describes your experiences from the &quot;Never&quot; to 10 &quot;Most of the Time.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Never</strong></td>
<td><strong>Most of the time</strong></td>
<td></td>
</tr>
<tr>
<td>1. I find it hard to relax</td>
<td>Exercise</td>
<td></td>
</tr>
<tr>
<td>2. I have more anxiety than usual</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>3. I have difficulty concentrating on a task or job</td>
<td>Go to church or pray</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Listen to music</td>
<td>0</td>
</tr>
<tr>
<td>4. My heart is racing and I feel tense and anxious</td>
<td>Never totally feel comfortable</td>
<td>0</td>
</tr>
<tr>
<td>5. I have more stomachaches</td>
<td>Write</td>
<td>0</td>
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<tr>
<td>6. I am a worrier</td>
<td>Take days off work</td>
<td>0</td>
</tr>
<tr>
<td>7. I feel sad and depressed</td>
<td>Driving</td>
<td>0</td>
</tr>
<tr>
<td>8. I have more fatigue than usual</td>
<td>Stay in bed</td>
<td>0</td>
</tr>
<tr>
<td>9. I have problems sleeping</td>
<td>Share the problem with someone</td>
<td>0</td>
</tr>
<tr>
<td>10. I feel overwhelmed</td>
<td>Drink alcohol</td>
<td>0</td>
</tr>
<tr>
<td>11. I feel like I am going round in circles</td>
<td>Use drugs other than alcohol</td>
<td>0</td>
</tr>
<tr>
<td>12. I have trouble getting things done</td>
<td>Take medication</td>
<td>0</td>
</tr>
<tr>
<td>13. I find myself getting upset more easily</td>
<td>Any other method</td>
<td>0</td>
</tr>
</tbody>
</table>
**QUESTION 5**

With whom do you usually discuss work-related concerns or problems when you have them? Circle the number that best describes your experiences from 0 = "Never" to 10 = "Most of the Time."

When I have work problems, I discuss them with...  

<table>
<thead>
<tr>
<th>Groom/Significant other</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
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<tr>
<td>Supervisor</td>
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<td>6</td>
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<td>10</td>
</tr>
<tr>
<td>Partner</td>
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<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Other Officer/Employee</td>
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<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
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<td>Friend</td>
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<td>10</td>
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<td>Child</td>
<td>0</td>
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<td>10</td>
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<td>Physician</td>
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<td>Company</td>
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<td>9</td>
<td>10</td>
</tr>
<tr>
<td>No One</td>
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<td>10</td>
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<td>Other (please specify)</td>
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<td></td>
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</table>

**GENERAL INFORMATION**

We would like to know a little bit of information about you. Please recall these responses are voluntary and your identity will not be linked to your responses. Circle your answers when necessary.

Please write your age

What is the highest level of education you have completed?

- a) High School or GED
- b) Bachelor's Degree
- c) Some College < 2 years
- d) Associate's Degree
- e) Bachelor's Degree
- f) Master's Degree or Higher
- g) Doctorate

How many years have you been in law enforcement?

Please identify your current official job classification

What is your gender?

- a) Male
- b) Female
What is your relationship status?

- Married
- Single
- Separated
- With partner
- Other

Of which race/ethnicity do you consider yourself to be a member?

- a) Caucasian/White
- b) Asian
- c) African American
- d) Other (specify)
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<tr>
<th>Variables</th>
<th>1</th>
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<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
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<td>Perceived Levels of Stress</td>
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<td>Social Coping</td>
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<td>1.000</td>
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<td>Isolative Coping</td>
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<td>.230</td>
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<td>.269</td>
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<td>Community Stressors</td>
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<td>.233</td>
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<td>Interpersonal-Contact Stressors</td>
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<td>.124</td>
<td>.079</td>
<td>.092</td>
<td>.160</td>
<td>.073</td>
<td>.114</td>
<td>.154</td>
<td>.197</td>
<td>.069</td>
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<tr>
<td>Years on law Enforcement</td>
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<td>.033</td>
<td>.178</td>
<td>.142</td>
<td>.107</td>
<td>.025</td>
<td>.136</td>
<td>-.024</td>
<td>-.129</td>
<td>.011</td>
<td>-.084</td>
<td>1.000</td>
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<tr>
<td>Age</td>
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<td>-.006</td>
<td>.194</td>
<td>.128</td>
<td>.104</td>
<td>.086</td>
<td>-.008</td>
<td>-.091</td>
<td>-.018</td>
<td>-.089</td>
<td>.785</td>
<td>1.000</td>
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</table>

Note: *p < 0.05; **p < 0.01. Perceived Levels of Stress (0 = No stress, 10 = High stress); Social Coping (0 = Never, 10 = Most of the Time); Isolative Coping (0 = Never, 10 = Most of the Time); Work-Iself Stressors (0 = No stress, 10 = High stress); Organizational Stressors (0 = No stress, 10 = High stress); Community Stressors (0 = No stress, 10 = High stress); Interpersonal-Contact Stressors (0 = No stress, 10 = High stress); Anxiety-Depression Scale (0 = Never, 1 = Most of the Time); Race (0 = White, 1 = Non-White); Relationship Status (0 = Married, 1 = Non-Married); Education (0 = No College Degree, 1 = College Degree); Gender (0 = Male, 1 = Female); Years on law Enforcement (1 = Age 1).
APPENDIX F

ASSUMPTIONS OF MULTIPLE REGRESSION FOR MODEL 1

Linearity
Homoscedasticity
Normality of Residuals

Mean = 1.07E-15
Std. Dev. = 1.820
N = 320
APPENDIX G

ASSUMPTIONS OF MULTIPLE REGRESSION FOR MODEL 2

Linearity
Homoscedasticity
Normality of Residuals

Mean = 4.33E-15
 Std. Dev. = 0.511
 N = 20
APPENDIX H

ASSUMPTIONS OF MULTIPLE REGRESSION FOR MODEL 3

Linearity
Homoscedasticity
Normality of Residuals

Frequency

Unstandardized Residual

Mean = 1.22E-15
Std Dev = 7.598
N = 420
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