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The Contribution of Forced Medical Retirement to Symptoms of Depression, Anxiety and Stress in Law Enforcement Officers

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by

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Approval

This applied dissertation was submitted by Kimberley K. Blackmon, under the direction of the persons listed below. It was submitted to the Institute for Human Service, Health, and Justice and approved in partial fulfillment of the requirements for the degree of Doctor of Philosophy at Nova Southeastern University.

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The contribution of forced medical retirement to symptoms of depression and anxiety in law enforcement officers

by
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This research explored whether a statistically significant difference exists between symptoms of depression, anxiety and stress in police officers who were forced into medical retirement as compared to those who retired after years of completed service. The sample population of retired police officers as well as the appropriate testing instruments for these targeted individuals is discussed. In addition, the dissertation addresses how the survey determined the type of retirement they were subjected to (voluntary or involuntary) and any depressive or other psychological symptoms since that retirement. The findings from this study show that a statistically significant difference exists in the symptoms of depression, anxiety and stress in law enforcement officers who were forced to retire early, as opposed to those officers who retired after years of completed service. Furthermore, the influence of support systems and coping skills also showed to influence psychological outcomes for the retirees. Interestingly, however, participation in employee assistance programs, pre-retirement and post-retirement counseling was not found to be significant in any of the three dependent variables. This study will add to the knowledge base of law enforcement retirement and associated coping strategies for life after police employment.

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CHAPTER 1

Introduction

Background

This study attempts to close the gap in the literature regarding the consequences and effects of "forced" medical retirement for law enforcement officers. Furthermore, this research demonstrates the problem that exists in the literature and why this study is necessary and may prove beneficial to the law enforcement community. This dissertation includes a statement of the problem, the goals of the dissertation study, the research questions, a review of the relevant literature and the approach taken to address this research problem.

Statement of the Problem

In the law enforcement community, retirement from a lifelong career can be quite difficult. Retirement brings forth many adjustments and challenges, including changes in lifestyle, friendships and self-esteem (Violanti, 1992). The police subculture affords an avenue of support and camaraderie that provides many officers a feeling of a surrogate family. However, as officers retire and leave the badge behind, there is often little support and the transition back to civilian life is unorganized and lacks planning (Caudill and Peak, 2009). Many retired officers report feelings of loss of their role in the world as well as losing the companionship with the "brotherhood." Transitioning from "public servant" to "private citizen" can be a struggle and officers typically experience feelings of isolation and detachment. After spending so much time in a position of authority, some retired officers also report a difficult adjustment to "normal" civilian life. For those police officers who leave the job suddenly, this transition can become even more challenging, as they are often unprepared for consequences of such changes (Violanti, 1992). Rehm (1996) asserts that all too often, veteran law enforcement officers remain with their

departments long after their effective years. This typically leads to these officers becoming the focus of jokes among the younger officers and decreases the morale of the department. Therefore, Rehm (1996) suggests that agencies should provide an avenue of counseling for these veteran officers nearing retirement age to explore challenges and opportunities outside of the department so they may begin to appreciate life after retirement from law enforcement service.

Studies show that approximately half of today's law enforcement retirees are miserable in their postretirement lives (Caudill and Peak, 2009). Those retirees who have been able to plan for their retirement effectively fare better than those who retire suddenly, early, or unexpectedly. Officers who have planned their retirement event and have the support of their departments cope much better during the transition (Caudill and Peak, 2009). Studies have also shown that suicides are prevalent among older, retiring, or just retired officers (Territo and Vetter, 1981). To combat this, many agencies across the country have implemented employee assistance programs to provide pre-retirement counseling to officers as they prepare to leave the law enforcement occupation. Violanti (1992) suggests that it is in the officers' and agencies' best interests to make provisions for retirement counseling and guidance prior to an officer's retirement. These programs may give retirees perspective about their postretirement options as well as enhance their knowledge in the areas of finance, lifestyle, health care and social activities. Preretirement programs promote a sense of empowerment among retirees regarding their financial and health affairs (Caudill and Peak, 2009). However, little research or preparation exists in regards to those officers who must leave the job suddenly due to medical illness or injury.

A forced retirement due to an in-the-line-of-duty injury or poor health may leave officers with a feeling of a loss of identity. All too often, the retiree loses connection with fellow officers

and the department they once served (Violanti, 1992.). Violanti (1992) points to Richards' three stages of recovery in outlining how a disabled police officer may cope with an unexpected medical retirement. The survival honeymoon phase finds the officer grateful to be alive, yet they have not quite grasped the full impact of the limitations they may encounter in their lifestyle. In the adjustment shock phase, the officer may begin to have feelings of insecurity and is unsure how to cope with the future. Over time, they see less frequent contact with friends and family and may feel isolated and alone. Lastly, the recovery stage finds the officer showing signs of adjustment to their new lives with their disability and begins to overcome their physical limitations (Violanti, 1992).

Caudill and Peak (2009) assert that while there may be various reasons for law enforcement retirement, the separation from a beloved police career can have a psychologically debilitating effect on police officer retirees. For one, they are no longer part of the bond created among police officers who see each other through trials and tribulations, dangers, successes and frustrations. In addition, retired officers must leave behind the symbols of their position that have become a large part of their lives. Retirement from a police career can prove to be distinctly different from other occupations and produce a loss of identity, feelings of helplessness and instability and depression. In addition, studies have shown that the relationship between experiences during the police career is influential in retirement satisfaction in that those officers who view police work as "just a job" fared far better in their retirement than those officers who maintained a high emotional attachment to their careers (Caudill and Peak, 2009).

Dissertation Goals:

This project is made up of four intertwined goals:

1. To determine whether there is a difference between regular retirement and forced medical retirement due to medical illness, injury or disability on depression.

2. To identify stressors associated with police retirement.

3. To identify potential preparation methods for law enforcement officers suddenly faced with an unexpected retirement.

4. To make recommendations and suggestions to the law enforcement community and other researchers as to the needs of retiring police officers.

Relevance and Significance

While there is much research in the area of law enforcement stress and the aftermath of police retirement, little empirical evidence exists regarding an unexpected or forced medical retirement from the profession. The lack of knowledge in this area can have a huge impact on how law enforcement agencies prepare their officers for life after a police career. Police officers who have had a long career in law enforcement and have been subjected to numerous career-related stressors may be at an increased risk of post-retirement adjustment issues. These issues may or may not be compounded if the retiree is not fully prepared to enter civilian life due to an unexpected or forced medical retirement (Caudill and Peak, 2009).

The primary goal of this study was to address the lack of knowledge and research in the area of forced medical retirement and the impact it may have on law enforcement retirees. The evidence gleaned from the research may provide a stepping stone for law enforcement agencies across the country to implement programs that will assist these officers in adjusting to civilian

life. The objective behind this preparation would be to reduce issues of depression, anxiety and other stress in retired law enforcement officers.

Barriers and Issues

One of the goals of this study was to build upon prior research regarding the correlation between forced medical retirement and symptoms of depression, anxiety and stress in retired law enforcement officers. However, this was complicated by the lack of such studies. While evidence exists in regards to retirement, both planned and unplanned, and its relationship to depression and maladjustment, the law enforcement occupation as a focus group does not appear to be readily available. The problem then, is inherently difficult to solve with the lack of pre-existing research. In addition, this study was equally as difficult in scope as there was no "starting point" with which to build upon.

An additional barrier to consider was the target population itself. Law enforcement officers are quite guarded and often perceive the expression of emotion as a weakness. By nature, police officers are suspicious and find it hard to trust or confide in others. In many cases, they simply isolate their feelings. Common personality attributes among police officers include solidarity, isolation, cynicism, pessimism, suspicion, and conservatism (Twersky-Glasner, 2005). Given these traits, it was likely that law enforcement officers would not be willing to participant in the study. However, assuring the participants of both the anonymity and the confidentiality aspects of the research promoted their participation. Lastly, access to the target population for randomization in the sampling strategy may be considered an additional barrier. To combat this, a convenience sampling strategy was employed, allowing this researcher the opportunity to reach out to potential respondents in the retired law enforcement community. To allow for gender representativeness which is consistent with the active law enforcement community, it was the

goal of this researcher to obtain a 30% response rate from female police retirees. This goal was not reached however, with only a resulting 4% response rate from female officers.

This dissertation does have merit however, in that it will provide an avenue for previously unexplored research in the law enforcement community. The aim of this study was to quantify how forced medical retirement for law enforcement officers may or may not result in feelings of depression, anxiety or stress in retired police officers. Doing so may provide an avenue for exploration in how exit interviews for medically retired police officers are conducted, retirement planning for police officers and crisis intervention methods for potential retirees in the law enforcement community.

Delimitations and Limitations

Delimitations of the study include:

1. The target population was drawn from members of law enforcement retiree groups from Law Enforcement Today, Policelink, Leo Affairs, and Linked In.

2. Due to time factors, the study was limited to no more than 250 respondents.

Limitations of the study include:

1. Due to the fact that convenience sampling was used, the researcher cannot say with confidence that the results can be generalized to the law enforcement population.

2. There was a potential risk of non-response of respondents as well as failure to respond in a timely fashion and to respond to the survey questions accurately.

Definition of Terms

Completed Service refers to a law enforcement officer retiring after the required number of years per their department retirement standards.

Employee Assistance Programs includes those programs offered through the police department that are intended to assist law enforcement officers with personal issues, issues that may impact their performance, or issues that may impact their health or well-being.

Forced Medical Retirement refers to a law enforcement officer taking an early retirement due to illness, injury, or disability prior to their completed service in their law enforcement capacity.

Post-retirement counseling is defined as any counseling service provided by the law enforcement agency subsequent to the official retirement of the law enforcement officer.

Pre-retirement Counseling is defined as any counseling service provided by the law enforcement agency prior to the official retirement of the law enforcement officer.

Psychological Outcomes refers to symptoms of depression, anxiety, and stress.

Summary

The current study seeks to close the gap in the literature regarding law enforcement retirees who have been subjected to forced medical retirement. The research may provide an avenue for further exploration into how these retirees are able to cope after suddenly losing their identity as a police officer and the resulting effects of depression, anxiety and stress. The transition to civilian life, in addition to the adjustment to living with an illness, injury or disability, may be substantially more difficult for medical retirees than those who voluntarily leave law enforcement after their years of completed service.

Chapter 2

REVIEW OF THE LITERATURE

Resilience in Retired Police Officers

In 2006, researchers Pole, Kulkarni, Bernstein and Kaufman undertook a study to explore and understand the factors that lead to resilience in retired police officers following exposure to duty-related critical incidents. The authors defined resilience as relatively good functioning in three domains: physical health, mental health, and interpersonal relationships. The study consisted of 21 participants, all of whom were retired male police officers from Michigan. The respondents of the survey comprised a variety of demographic, personality, exposure to duty-related critical incidents, coping, nontraumatic work stress, posttraumatic growth, physical health, mental health, and interpersonal functioning measures (Pole, et. al., 2006).

Pole, et. al. (2006) contend that policing is widely recognized as one of the world's most stressful occupations since law enforcement officers may face a variety of critical incidents that the general public would consider traumatic in nature including threats to their lives or lives of others, hostage situations, sexual and physical assaults, shootings, mutilations and even death. The authors further maintain that law enforcement officers demonstrate abnormally high rates of stress-related negative outcomes such as substance abuse, marital problems and physical health issues (Pole, et. al., 2006).

As part of the resilience study, Pole, et. al. (2006) point out that theorists have acknowledged that resilience is not merely a function of the individual, but can also be viewed as a product of the circumstances and environment in which he or she finds him or herself in. In light of this factor, the authors considered it important to examine exposure to duty-related and

non-duty related trauma and exposure to non-traumatic routine work stress as potential detractors from resilience (Pole, et. al., 2006).

The resilience study conducted by Pole, et. al., (2006) attempts to determine what demographic, family history, personality, trauma exposure, coping, non-traumatic work stress, and posttraumatic growth variables account for resilience following a police career. The authors point out that the reason they chose to examine this question in retired police officers is because they are (a) likely to have had extensive exposure to police-related stressors, (b) less susceptible to institutional pressures to minimize or underreport sources of stress, and (c) at an age when physical health problems may be more readily apparent (Pole, et. al., 2006).

The results of the Pole, et. al (2006) study shows that the variable of trauma exposure displays some interesting results in that exposure to more non-duty related trauma was related to less resilience among retired police officers due to its association with poorer mental health functioning, whereas exposure to duty-related critical incidents was not significantly related to resilience (2006). The study also shows that after controlling for social desirability reporting bias, resilience among retired police officers is best predicted by less distancing coping and less tendency to keep their professional lives secret from friends and family (2006).

Retirement Transitions and Spouse Disability: Effects on Depressive Symptoms

Researchers Maximiliane Szinovacz and Adam Davey (2004) assert that although theories pertaining to the effects of retirement on well-being have focused on the extent and type of post-retirement activities and life styles of retirees, the circumstances of the retirement transition itself are also important for retirees' well-being. They argue that specific circumstances under which retirement occurs will help determine how retirement affects one's well-being. The authors also explore the assumption of life course theory pertaining to the

timing of life transitions by examining whether perceptions of too early retirement moderates the effect of retirement on depressive symptoms (Szinovacz & Davey, 2004).

The study conducted by Szinovacz and Davey (2004) was additionally based upon the association between control and well-being. The researchers assert that evidence suggests that individuals who are able to exert control over their own lives and their environment report enhanced well-being, in stark contrast to those individuals who feel they do not have control over their environment and therefore do not express well-being. Furthermore, the authors contend that should a life transition occur suddenly and under circumstances for which the individual does not have control, it may lead them to a feeling of reduced well-being. The researchers note also that a gradual exit from one's occupation, with time for preparation and planning, may be perceived as less stressful than abrupt transitions (Szinovacz & Davey, 2004).

Szinovacz and Davey's (2004) hypotheses included not only the aspect of forced, early retirement, but also included the element of a spouse's disability. They hypothesized that a spouse's disability in conjunction with early and abrupt retirement will lead to an increase in postretirement depressive symptoms. A secondary hypothesis states that the effects specified under Hypothesis I will be more pronounced for females than for males. Using data from the HRS, a longitudinal biannual survey of households, the selection of households was based on a multistage area probability design, resulting in a response rate of 80% (2004).

The researchers used an eight-item scale from the Center for Epidemiological Studies – Depression Scale to measure the main dependent variable of depressive symptoms. Analysis of the results show support for their assumptions that early and forced retirements lead to an increase in depressive symptoms (Szinovaca & Davey, 2004). Specifically noted, the authors point to those individuals who retired early or whose retirement was forced reporting

significantly more depressive symptoms than those who were able to continue working in some capacity. Therefore, they suggest that postretirement employment acts as a buffer between potentially negative effects of early or forced retirement. The researchers assert that this study "provides directions for theoretical development in retirement research and for interventions and policy," (Szinovaca & Davey, 2004, p. 340).

Assessing the Social Components of Retirement Anxiety

Wesla Fletcher and Robert Hansson (1991) developed the Social Components of Retirement Anxiety Scale (SCRAS) to assess retirement anxiety. The SCRAS consists of 23 items which measures 4 factors: Social Integration and Identity, Social Adjustment/Hardiness, Anticipated Social Exclusion, and Lost Friendships. The authors point to research which suggests that most people have satisfactory adaptive measures to adjust to retirement life when variables affecting their retirement are controlled. However, they note that individual characteristics may affect the experience of retirement and transition from work to postretirement life, with some retirees reporting difficulty with the retirement transition (Fletcher & Hansson, 1991).

Fletcher and Hansson (1991) note that such individual differences stem from both personal and structural factors as well as the interaction between the two. They point to the ability to conduct financial planning prior to retirement in addition to the choice on the part of the retiree to leave the work force. The authors contend that although much research has focused on the nature of retirement decision making and adjustment to retirement life, much less attention has been paid to those dispositional influences that may undermine decision making, planning and preparation for the retirement process and eventual adjustment as a retiree (Fletcher & Hansson, 1991).

The researchers point to several dispositional variables that may affect one's ability to transition effectively to the retirement lifestyle. They note that it has been suggested that a lack of conscientiousness in planning for the future or a belief that one has no personal control over their retirement future could affect planning for retirement life. Fletcher and Hansson (1991) also point out that certain individuals may also be more vulnerable to social transitions to retirement life and that the retirement process can disrupt friendships and social support networks associated with the workplace. Additionally, the authors contend that the loss of employment may deprive the retiree from a valued sense of identity once shared with coworkers and the demands of coping with retirement could be compounded by two interpersonal concerns: (a) the loss of structured social involvement in the workplace and (b) the need to initiate or develop supportive relationships outside the workplace (Fletcher & Hansson, 1991).

Fletcher and Hansson (1991) define retirement anxiety as "a generalized feeling of apprehension or worry regarding the uncertain, unpredictable, and potentially disruptive consequences of impending retirement," (p. 77). They further note that in addition to its social components, retirement anxiety could also be construed to include other retirement concerns such as financial stability, how to occupy one's time and age-related health problems. In light of this however, the research conducted by Fletcher and Hansson (1991) focuses primarily on the social components of retirement. The researchers note two significant reasons for this: (a) a person's other vulnerabilities in the retirement transition can be more directly assessed and often are and (b) substantial literature has evolved regarding the social transitions associated with retirement and one's vulnerability to such transition (Fletcher & Hansson, 1991).

Using a questionnaire administered to all employees aged 50 and older from a midsized university and from a large city government, the results of the Fletcher and Hansson (1991) study

show that SCRAS scores are negatively associated with one's attitude toward retirement, but are positively associated with the number of years a person desired to continue working prior to their retirement. In addition, respondents with higher SCRAS scores anticipated having less personal control over their retirement lives than those respondents with lower scores (Fletcher & Hansson, 1991).

Work, Retirement, and Depression

In 2009, researchers Jinkook Lee and James P. Smith published a study investigating the relationship between depression and labor force participation by examining whether retirement induces depression or depression discourages labor force participation. Lee and Smith assert that depression is a health problem that may lead to a reduction in work force participation and productivity, as well as acknowledge that arguments exist that retirement increases the risk of depression as well. The aim of the Lee and Smith study is to evaluate a causality between depression and retirement and whether retirees are more at risk of depression than current workers (2009).

Utilizing data from the 2006 baseline wave of the Korean Longitudinal Study of Aging, Lee and Smith focus their attention on the relationship between retirement and depression and therefore limit their sample to those between the ages of 50 to 64. The study has a 99.3% response rate of individuals age 50-64. The measure of depression is gained by using the Korean version of a 10-item Center for Epidemiologic Studies Depression (CESD-10) self-reporting scale. The retirees are asked to report primary reasons for retirement up to two primary reasons including: (1) poor health; (2) company's mandatory retirement policy; (3) voluntary reasons; (4) family responsibilities; (5) unable to find work; and (6) other reasons (Lee & Smith, 2009).

The results of the Lee and Smith (2009) study show a statistically significant difference in depression levels between those individuals working for pay and those not currently working. However, the authors do acknowledge that the correlation between work and depression by itself tells us very little about the underlying forces that produce the depression. According to Lee and Smith (2009), the broad categories of reasons for retirement have different implications about the nature of causal pathways involved in correlation between retirement and depression. While the researchers find strong evidence that depression leads to a reduction in work force participation and that retirees are often more depressed than those currently employed the causes that induce the retirement are also associated with depression (Lee & Smith, 2009).

Adaptation to Retirement

Taylor-Carter and Cook (1995) conducted a review of the influence of social and work roles and how they are incorporated into a model of retirement adjustment. In addition, this study explored the link between two psychological moderators, locus of control and retirement self-efficacy, and the retirement transition. The researchers point out that much of the contemporary research regarding retirement adjustment is focused on description, rather than explanation, therefore there is a need for a greater understanding of the processes constituting the retirement transition.

Taylor-Carter and Cook (1995) assert that role theory is a potentially useful framework for examining the retirement transition. They contend that certain socially prescribed and personally relevant roles are critical to the self-identity of the retiree. Since leaving the workforce necessitates a shift in one's roles and activities, the researchers emphasize that a role-based approach may be applied to the retirement process. Researchers Taylor-Carter and Cook

(1995) further proclaim that retirement may be viewed as a transition that involves role expansion, redefinition, and change.

In the study conducted by Taylor-Carter and Cook (1995), it is noted that a number of studies have linked a positive relationship between the quality of retiree social connections and the postretirement affect. A common thread recognized in prior research is that social support may buffer against stress and stressful changes. Taylor-Carter and Cook (1995) draw the conclusion that friendship roles may have a significant impact upon retirement adjustment and those individuals who develop many of their meaningful social activities from colleagues may encounter a more difficult retirement transition.

Furthermore, Taylor-Carter and Cook (1995) found that the level of identification one has with a company, an occupation, and work in general may serve to predict the success of a workforce exit. They point out that for one who maintains a level of attachment to their occupation that extends beyond a mere general attachment to work, the affiliation with their occupation may become an important part of their self-identity. This identification may not be easily replaced by other activities or even other work. For those retirees who so strongly identify with their occupational role, the retirement transition becomes aversive and carries with it a loss of identity as well as a loss of critical roles (Taylor-Carter & Cook 1995).

In the study conducted by Taylor-Carter and Cook (1995), two constructs repeatedly emerged as significant predictors in the ability to adapt to the change during the retirement process: locus of control and retirement self-efficacy. Locus of control involves the retiree's belief that they possess the power to shape the outcomes of their life. Those retirees with an internal locus of control maintain the belief that they may be able to control many events in their life. Those retirees with an external locus of control believe that many of their life's outcomes

are simply the result of luck or chance and are completely out of their control. The second construct noted is retirement self-efficacy, which is the belief that one possesses the knowledge and skills needed to effectively negotiate the retirement process and the changes inherent therein. Those retirees with high self-efficacy may be more likely to effectively plan for retirement and adapt to the postretirement changes. The researchers conclude then, that those retirees with an internal locus of control and a positive sense of retirement self-efficacy may be more effective in making the retirement transition (Taylor-Carter and Cook, 1995).

Taylor-Carter and Cook (1995) also note that studies show that retirement planning is critical in making a successful adjustment to a workforce exit. They assert that retirement planning is an important way for the retiree to clarify expectations of their retirement and to raise their self-efficacy. Furthermore, the researchers point out that planning may also serve to make retirees aware of the nature of retirement and sensitize them to the amount of unstructured time that will become predominant in their postretirement lives. For those retirees with an external locus of control, Taylor-Carter and Cook (1995) contend that more direction may be needed during the retirement planning process. Since these retirees may expect to have little personal control over their lives, they may display greater anxiety about adjusting to the social changes in retirement. These retirees, then, may need more encouragement and support from retirement counselors in order to actively seek out new activities and develop new roles (Taylor-Carter & Cook, 1995).

Early versus Regular Retirement

Knesik (1992) conducted a study to determine whether differences in measures of the life satisfaction exist between early and regular retirees. The study also examined independent variables that included age, sex, length of time retired, whether the retiree was living alone or

with others, whether the retiree gained other employment, whether the retiree engaged in volunteer activities, whether the retiree made the decision to retire, and the amount of retirement planning involved in the decision. Knesik (1992) points out in his review of the prior literature that previous studies suggest that knowing the date of one's retirement well in advance of the event enables the retiree with the ability to plan, or at the very least have more time to think through what they want to do in the future. According to Knesik (1992), these studies show that groups of retirees who have planned for retirement report more satisfaction with retirement than those who improvised.

The random sample of retirees in Knesik's (1992) included both employees from the private and public sector. The respondents of the study were divided into two main focus groups: those who retired early and those who retired after the usual customary time. The research questions posed by Knesik (1992) include: (1) Do differences exist in measures of life satisfaction between individuals who retire from their places of employment early (early retirees) and those who retire from the places of employment at the usual customary time (regular retirees) and (2) Which factors individually and collectively are related to satisfaction in retirement? The criterion variable in this study was life satisfaction in retirement. Using the Retirement Descriptive Index (RDI), Knesik (1992) measured the participants' retirement satisfaction across four scales: activities, people, health, and finances.

The results of the Knesik (1992) study show that 84% of the respondents felt that the choice to retire was completely their decision and 94% of the respondents felt that their employer had treated them fairly during the retirement process. Results also show that 46% of the respondents said that they had planned for retirement carefully, while 43% stated they did some retirement planning, and 11% reported having conducted little or no planning for retirement.

According to the Knesik (1992) study, across all four retirement satisfaction scales, all groups of retirees reported a fairly high level of satisfaction in retirement. Knesik (1992) found that analysis of variance procedures found no significant differences between the respondent groups on any of the retirement satisfaction scales. Furthermore, the study shows that no support was found to indicate that early retirees differ from regular retirees on measures of life satisfaction (Knesik, 1992).

Following the initial data analysis, Knesik (1992) desired to examine the relationships between the independent variables themselves. Using Chi-Square procedures to assess whether or not a systematic relationship existed between two variables, the results of the procedure indicated some significant differences between observed and expected frequencies. Firstly, according to the Knesik (1992) study, there appears to be a relationship between whether or not it was an individual's decision to retire and whether or not an individual felt treated fairly in the retirement process. In addition, there appears to be a relationship between the amount of retirement planning and whether or not an individual feels forced to retire (Knesik, 1992).

The Chi-square analysis prompted Knesik (1992) to investigate whether or not retirees who felt forced to retired differed on measures of life satisfaction from retirees who felt that retirement was a voluntary decision. The subsequent analysis found a significant difference between the two groups only on the financial scale. Results show that the group who felt that retirement was their decision is more satisfied with their financial situation in retirement. Knesik (1992) points out that while this study suggests that early retirees do not differ on measures of life satisfaction in retirement from those retirees who retire at the usual time, generally across the four scales, the scores of the early retiree groups were somewhat lower. Knesik (1992) contends

that although these differences were not significant, the fact that these retiree's scores were lower may indicate the need for further research in this area.

Police Trauma and Addiction: Coping with the Dangers of the Job

Cross and Ashley (2004) argue that the law enforcement profession produces stress reactions that can lead to psychologically, cognitively, and physically debilitating conditions which may impair occupational performance. In response to these stressors, many police officers resort to maladaptive responses such as alcohol and drug abuse. The capacity to cope with stress for police officers, they maintain, is a personal journey that depends largely on a police officer's past experiences with trauma, appropriate development of coping strategies, the availability of support networks and recognition of the warning signs of symptoms of post-incident stress (Cross & Ashley, 2004).

Law enforcement officers experience a wide range of occupational stressors including officer-involved shootings, deaths of fellow officers, serious injuries in the line of duty, life-threatening incidents, exposure to intense crime scenes, police suicides, and many other situations that fall outside the realm of normal occupational experience. Responses and symptoms to these stress situations can be cognitive, physical, behavioral, or emotional. In most cases, a combination of these symptoms emerges, increasing in degree as time progresses. Without appropriate coping mechanisms, over time it may lead to physical, mental and emotional exhaustion (Cross & Ashley, 2004).

Cross and Ashley (2004) state that stress responses often begin with anxiety and panic reactions. This may lead to difficulties in concentration or feelings of being overwhelmed and out of control. Left unchecked, this may produce physical symptoms such as tachycardia, gastrointestinal distress and hypertension. Without some measure of intervention and proper

coping strategies, worker apathy may increase resulting in absenteeism, lateness, procrastination, and increased use of chemical substances such as tobacco, caffeine, alcohol and other drugs. As time progress, depressive symptoms ensue and the officer begins to experience feelings of hopelessness, may entertain suicidal ideations and increased use of substances to dull these feelings. Cross and Ashley (2004) point out that studies show that nearly one-quarter of law enforcement officers are alcohol dependent as a result of occupational stressors. They also contend that this number falls well below the true number due to incomplete reporting. Furthermore, it is noted by Cross and Ashley (2004) that the unique subculture of the law enforcement profession often makes it acceptable to engage in alcohol use, promoting camaraderie during social interaction with other officers (Cross and Ashley, 2004).

Researchers have identified four occupational demands that may trigger alcohol use by law enforcement officers: depersonalization, authoritarianism, organizational protection and danger preparation. Depersonalization results as police officers react unemotionally to the everyday stresses of the job. Authoritarianism is a consequence of the officers' behavior being governed by a set of rules and regulations, which ultimately makes them feels as if they are not in control. Organizational protection is the structure which is in place to protect the law enforcement agency from outside criticism and danger preparation links to the stress related to the officers knowing that their lives potentially are in constant danger while on the job.

Furthermore, Cross and Ashley (2004) point out that drug use among police officers is also on the rise. This has prompted many law enforcement agencies to establish and maintain drug-testing programs for employees. Unfortunately, for many officers who experience trauma while in the line of duty, substance abuse becomes an all too easy remedy to numb the pain of their experiences. Cross and Ashely (2004) also argue that law enforcement officers are in a

position that make them far more susceptible to abusing drugs due to the fact that they have ample opportunity to obtain drugs since they are in close contact with both the substances and individuals who use or deal in them. These officers learn how, why and where to obtain illegal drugs as well as the rationalizations for such use from these offenders. Substance abuse offers police officers a way to cope with the constant occupational stress and the ever-present traumatic incidents they encounter (Cross and Ashley, 2004).

Chronic drug and alcohol abuse by police officers may have lasting social and economic costs including loss of productivity at work, increased family problems, risk of domestic violence, and rising costs to the criminal justice system. Law enforcement officers who become drug abusers may become unable to perform their sworn duties and administrators can find themselves increasingly overburdened trying to deal with an issue that ultimately results in a negative perception on their agency. The public loses faith and trust in the officer, the agency and the system (Cross and Ashley, 2004).

In addressing traditional trauma and stress intervention strategies, Cross and Ashley (2004) contend that research questions the ability of these techniques to reduce the symptoms resulting from traumatic experiences in law enforcement officers. They argue that while these intervention measures may prove beneficial for some, reactions to traumatic events and the stresses inherent in police work make a more individualized model more appropriate in many circumstances. Cross and Ashley (2004) further maintain that treating law enforcement officers can pose some challenges to mental health personnel since most police officers view the mental health profession with a great degree of skepticism and do not feel that counselors understands what it take to do police work (Cross and Ashley, 2004).

To be more effective at treating law enforcement officers in regards to traumatic experiences and drug and alcohol abuse, Cross and Ashley (2004) contend that mental health counselors must have a foundation in policing and a comprehension of the trauma and stresses inherent in police work. Furthermore, they argue that counselors should have a localized knowledge of the agency and administrators within which their clients reside as well as an ability to build a rapport with these officers by establishing a trusting, respectful atmosphere where they can assure officers of complete confidentiality. In addition, Cross and Ashley (2004) conclude that law enforcement agencies should have trained mental health professionals and addiction counselors on staff for consultations, interventions and referrals as well as trauma teams that are on call when interventions are needed. They also argue that agencies should make employee assistance programs available to provide services outside the agency and institute peer counseling programs since officers are more likely to respect the experiences of fellow officers over outside professionals. Lastly, Cross and Ashley (2004) point out that young police recruits should receive training about police stressors and dealing with traumatic incidents and law enforcement agencies should make critical incident trauma management training to all officers on an ongoing basis (Cross and Ashley, 2004).

Employee Assistance Programs: Then, Now and in the Future

Job-based programs operating within a work organization for the purpose of identifying "troubled employees" and motivating them to resolve their troubles and providing access to counseling, treatment or services are known as Employee Assistance Programs (EAPs) (Steele, 1998). These programs have evolved over the years in response to both influences inside and outside the workplace. This evolution has led to these programs becoming a diverse set of service groups with distinctive structures and services. Steele (1998) points out that the most

direct antecedent to EAPs were industrial alcoholism programs which emerged during 1940-1970. These programs were often initiated and staffed by recovering alcoholics and most likely to occur in large, industrial firms. Suspected alcohol use often led to referrals to the programs by both co-workers and supervisors and program staff would provide personal support, counseling, and referrals to organizations such as Alcoholics Anonymous. These programs developed both formally and informally and were often kept a secret in an effort not to damage the company's public image (Steele, 1998).

As these programs matured from the 1970s through the latter part of the twentieth century, the focus broadened from alcohol-exclusive to addressing any personal or family concern the employee may have. Many of the sources for referrals shifted from supervisors and co-workers to self-referrals. In most cases, these self-referrals were grounded in concerns for which supervisors and managers might be completely unaware of. In addition, interventions moved outside of the work environment and toward professional residential behavioral health services. The expansion of EAP services ultimately shifted the knowledge base of staff over time from those with personal experiences with successfully coping with behavioral problems, to those trained by government agencies. More staff with formal degrees and training in social work, psychology, and counseling began filling roles with EAP programs (Steele, 1998).

Steele (1998) states that EAPs have continued to steadily grow both in number and in proportion of the labor force served. He points to the National Survey of Worksite Health Promotion Activities which estimated that 24 percent of private, nonagricultural worksites with 50 or more employees offered EAP services in 1985. In 1988, the Bureau of Labor Statistics; Survey of Employer Anti-Drug Programs estimated that 6.5 percent of all private,

nonagricultural worksites had an EAP in place. In a follow-up study by the Bureau in 1990, the estimated percentage of worksites with EAPs rose to 11.8 percent (Steele, 1998).

Steele (1998) cautions, however, that while these programs may be becoming more prevalent in the workplace, not all EAPs are the same in their placement, structure or operation. He contends that comparisons between programs and assessments of EAP effectiveness can be misleading, namely due to the fact that they can vary greatly in the services they offer. While some programs may provide a comprehensive range of services, Steel (1998) notes that others offer relatively few of these services. He argues that there are five types of Employee Assistance Programs that have emerged over the last few decades: (1) the Full Service EAP; (2) the Integrated Program; (3) the Wrap-Around EAP; (4) the Compliance EAP; and (5) Peer-Assistance Programs (Steele, 1998).

According to Steele (1998), the Full Service EAP is rooted in human resource management consultations and offers a wide range of support for managers. These are well funded and staffed internal programs and are the type most likely to provide crisis management and critical incident debriefing. They are also the most likely to have expanded into the risk management and prevention aspects of job performance. The Integrated Program focuses on behavioral health benefit management and integrates gate keeping for access to in-program EAP services with the approval of out-referral placement for treatment. Advocates for this model of EAPs contend that it reduces misunderstanding and conflict by unifying assessment, service and benefit management all in one group. The Wrap-Around EAP is common among smaller employers and results as a response to restrictions placed by managed care organizations on the use of mental health services. These organizations are imposing significant restrictions on the EAP-client relationship, which results in many employers not having easy access to mental

health services for their staff. Therefore, these employers contract with EAPs to have ready access to outpatient behavioral health benefits. The Compliance EAP is a specialized programs developed to monitor and comply with conditions of the Drug-Free Workplace Act, the United States Department of Transportation and various other state regulations. These programs are relatively few in number but are often implemented internally or purchased by employers looking for the least expensive mechanism to comply with government regulations. Lastly, Peer-Assistance programs are operated by both labor and professional associations in support of their membership. These programs are often adopted to serve employees that are not provided EAP services by their employers for various reasons. In some cases, these programs form as a response to concerns about confidentiality of EAP services or as a result of dissatisfaction with employer sponsored EAPs (Steele, 1998).

Gender and Police stress

He, Zhao, and Archbold (2002) conducted a study which explored the impact of work environment, work-family conflict, and coping mechanisms on physical and psychological stresses of police officers. Using survey data from a large police department in New England, special focus was paid to analyzing similar and dissimilar results while comparing across gender groups. The study showed that for both gender groups, work-family conflict and destructive coping mechanisms are among the strongest and most consistent stressors for police officers. Contrarily, they also found divergent impact of exposures to negative work environment, camaraderie, and constructive coping mechanisms on different measures of work related stressors across the two gender groups.

The law enforcement occupation is highly stressful. Police officers are often exposed to the most violent, antisocial and mistrustful elements of society and are expected to exercise

discretion under critical circumstances. A police officer's performance can be negatively affected when officers experience chronic stress. Much of the prior research on police stress has failed to examine the differences of the impact of stress among both male and female police officers and focuses primarily on male officers. Therefore, He, et. al (2002) contend that observations and subsequent policy implications derived from this research may not be applicable to female police officers. Furthermore, they point out that research on stress and gender in occupations outside of law enforcement indicates that there are significant differences in the perceptions and coping skills of male and female workers (He, et.al, 2002).

He, et. al. (2002) further notes that research also demonstrates that female police officers experience stress derived from influences that are different from male police officers and that these female officers cope with stress differently than their male counterparts. They argue that the concern of the impact of stress and female police officers should be given more attention, given the rise in representation of female law enforcement officers in the workplace. He, et. al. (2002) also contend that in spite of the abundance of literature regarding the general relationship between police work and job-related stress, there is a substantial lack of research pertaining to the study of gender differences in coping with police stress and that most of the earlier studies on police stress did not have sample sizes large enough to make meaningful comparisons. The purpose of the He, et. al. (2002) then, was to investigate whether levels of clinically developed measures of psychological and physical stress are similar between male and female police officers, and the impact of work environment, work-family conflict, and stress coping mechanisms on the stress of both male and female police officers (He, et. al., 2002).

Utilizing data that was originally used in the 1999 study titled "Police stress and domestic violence in police families in Baltimore, Maryland" by Gershon, He, et. al. (2002) obtained the

data set and instrument developed to measure police stress. The measure of police stress was evaluated through a survey instrument adopted with minor modifications from the brief symptom inventory (BSI). Comprised of 53 items, it measures nine dimensions of psychological and physical symptoms of stress and each item is rated on a five-point scale of distress ranging from not at all (0) to extremely troublesome (4). He, et. al. (2002) used six independent variables in three major contexts including work environment, work-family conflict, and stress coping mechanisms. Three variables were used to represent the characteristics that are unique to the police work environment: (1) negative exposures related to police work; (2) camaraderie; (3) unfairness. The study also used two measures of coping mechanisms including constructive and destructive coping mechanisms (He, et. al., 2002).

The findings of the He, et. al., (2002) study show that female officers have statistically significant higher levels of stress in two of three indexes measuring psychological and physical stress. While the means of depression and somatization among female officers were both higher than male police officers, there was no statistically significant difference between male and female police officers on anxiety. Statistically significant differences were found, however, in all three measures of the work environment. Male officers were found to have experienced more work related negative exposures, tended to report higher levels of camaraderie, and reported higher levels of unfairness in the department than the female police officers. Lastly, the researchers found statistically significant gender differences in coping mechanisms among police officers. The results show that female police officers seemed to use more constructive coping mechanisms than male officers. He, et. al, (2002) also note however that although statistically significant, the differences in the destructive coping measures were rather marginal when male and female officers were compared (He, et. al, 2002).

Gender Differences in the Predictors of Police Stress

Morash, Kwak, and Haarr (2006) contend that stress that results from a negative work environment has been recognized as a major problem for police officers. Though some stress may be viewed as a positive motivator, it is primarily regarded as both a destructive and life threatening force. Police officers who experience high levels of stress regularly report poor health, are frequently absent from work, experience burnout, are dissatisfied with their jobs, and suffer from increased chronic stress, depression, and physical illnesses such as heart disease, stomach disorders, and substance abuse. Given the impact of stress on police officers, Morash, et. al, (2006) argue that it is essential to not only understand the influences of stress, but to also understand whether these influences vary by subgroups. They argue that by understanding group-specific differences in stress influences, it may be possible to develop interventions that would reduce workplace problems that are related to job stress (Morash, et. al., 2006).

Morash, et. al (2006) state that there are several reasons to expect that predictors of stress will be unique for women when compared to their male counterparts. For one, they contend that despite legislation in the 1970s that promoted opportunities for women in law enforcement, in 2001 women still only accounted for approximately 11.2 percent of all sworn police officers. Therefore, they contend that females in law enforcement are almost always members of a token group and quite likely to have very different experiences in the workplace than male officers do. A female police officer's stress, then, may be predicted by a set of problems in the law enforcement setting that are not necessarily predictive of a male police officer's stress. Furthermore, Morash, et. al (2006) point out that social support from family and other police officers might be important predictors of low stress for women, since they experience some unique workplace problems, including rejection by their fellow law enforcement officers.

Lastly, they contend that the department and the community may have a direct influence upon predictors of police stress. Since women are less likely to work in rural areas that serve populations of less than 50,000 residents or have fewer than 100 officers, differences such as community crime rates and organizational size might produce stressors that disproportionately affect one gender over another (Morash, et. al, 2006).

The study conducted by Morash, et. al. (2006) compared the predictors of work-related stress for policemen and policewomen. The stressors examined in the research included workplace problems, token status in the organization, low family and coworker support and community and organizational conditions. The sample population included 2,051 officers from a prior research study conducted in 1990, of which 46.2 percent responded. The goal of this sampling approach was to include officers with a wide variety of demographic characteristics. The variables of workplace problems included items such as: overestimates of physical ability, underestimates of physical ability, perceived lack of advancement opportunity, ridicule and setups, lack of influence, invisibility, language harassment, bias, sexual harassment, racial harassment and stigmatization because of physical appearance. The analysis began with a two-tailed independent t-test to examine the differences of mean scores of both male and female officers. To examine wither the effect of various predictors varied by gender, the research thene employed OLS regress analyses for female and male officers separately (Morash, et. al, 2006).

The findings of the Morash, et. al (2006) study showed that female police officers have statistically significantly higher levels of stress than male police officers. When compared to the males, the female officers also experiences significantly more workplace problems with underestimated physical ability, perceived lack of influence on how policing gets done, bias, language harassment, and sexual harassment. In addition, the female officers were more likely to

work in large, urban, high-crime areas and just over half of the female officers were tokens in their departments, whereas none of the male officers were. In the multivariate analysis, the researchers found that the strongest predictor of stress for both female and male police officers is dealing with bias by coworkers. Those officers who reported high levels of stress personally experienced some form of racial or ethnic bias and spent considerable time helping other officers deal with prejudice and bias as well. For male officers, the second strongest predictor of stress was perceived lack of influence on how police work is accomplished. Workplace problems also seemed to explain substantially more of men's than women's stress. The Morash, et. al (2006) study was consistent with prior research in that it revealed that workplace problems account for a considerable amount of police officers' stress, regardless of social support from family or work group, community/organizational conditions, token status in the department, and demographic factors (Morash, et. al, 2006).

Taking Stock: Toward a Richer Understanding of Police Culture

Paoline (2003) contends that the significance of understanding police culture lies in the role that it plays in the everyday functioning of law enforcement officers. Most connotations of police culture are negative in nature, asserting that the culture often endorses the violations of citizens' rights and misuses of police authority. Furthering this perception, efforts to ensure accountability of police officers has been met with a great deal of cultural resistance and the "blue wall of silence" that often impedes investigations of officer misconduct. Contrarily, there are positive aspects of police culture that are critical to the overall scheme of policing. For one, the collectiveness factor in police subculture assists in buffering the strains of policing that officers face on a daily basis. In addition, the police culture promotes the teaching of new and continuing officers about the day-to-day components of police work by experienced officers.

This can be beneficial in and used as a positive tool in reforming the police, as well as regulating and preventing inappropriate police conduct (Paoline, 2003).

According to Paoline (2003), occupational cultures are a product of situations and problems which members confront and respond to including accepted practices, rules, principles of conduct, and generalized rationales and beliefs. Police officers collectively confront situations that arise in the law enforcement environment and their subsequent attitudes, values, and norms are a result of their response to that environment. Paoline (2003) also asserts that police officers lead somewhat of a "schizophrenic existence" in that they must not only cope with the terror of an often hostile and unpredictable atmosphere, but also with a hostile, and even sometimes tyrannical and unpredictable bureaucracy. Therefore, police culture insulates group members from the hazards that originate in the two environments of policing (Paoline, 2003).

Prior research of law enforcement environments have noted that officers frequently view their working environment as being fraught with danger and the constant threat of danger. Police officers maintain a continual preoccupation with the element of danger and violence and are always anticipating confrontation. With the element of danger ever present in policing and the resulting recognition of such, emotional barriers to police work may be induced, unifying the officers themselves, yet separating them from the public. Additionally, the coercive authority of police work yields an additional layer of reinforcement of the perception of danger in the occupational environment. Regardless of the situation faced in law enforcement, officers are expected to create, display, and maintain their position of authority (Paoline, 2003).

An added component to the police culture is the relationship the officer has with the formal organization. The police culture addresses two major issues confronted by officers: unpredictable and punitive supervisory oversight and the ambiguity of the police role. The

relationship between police officers and their administration is often characterized by being dominated by a feeling of uncertainty. While police are expected to enforce the laws, they are also required to follow the proper procedures, rules, and regulation. Improper application of the law may result in both the officer and the agency facing disciplinary action. All too often, officers find themselves only being recognized for what they do wrong, rather than what they do right. The end result promotes a feeling among officers that being proactive only leads to the potential for procedural errors and negative evaluations. Officers are reserved in their actions then, in that they are expected to handle all problems on the street with efficiency and certainty, yet they may be held to excessive scrutiny by administration later on (Paoline, 2003).

Paoline (2003) further asserts that police officers also work within an organizational structure that reinforces ambiguous role identification. He points to research that identifies at least three major functions that officers are expected to perform in society: order maintenance, law enforcement, and service. However, police organizations have only historically recognized the law enforcement aspect of a police officer's duties. The focus on crime, performance evaluation and police training has all reinforced the law enforcement orientation. Therefore, while the officer may be handling situations on the street that encompass all three roles, only one role will be rewarded within the organization (Paoline, 2003).

In response to environmental stress in the law enforcement occupation, the police culture promotes various coping mechanisms. These mechanisms assist officers in regulating their occupational world. Widely noted coping mechanisms employed by police officers in response to both their occupational and organizational environments are suspiciousness, maintaining the edge, laying low and strict adherence to the crime-fighter image. Firstly, police are suspicious not only of the general public, but new occupational members of their workforce as well. New

recruits must establish themselves and provide their trustworthiness before being accepted into the group. Maintaining the edge is a function of the danger characteristic of the law enforcement occupational environment and is directly related to the ability of police officers to exhibit their authority. Laying low discourages officers from engaging in efforts that might bring undue attention to them and may have a negative effect on the way in which officers police. Lastly, one of the ways in which officers resolve the ambiguous role of police in society is to identify with the crime fighter role, as that is the one that law enforcement administration has historically recognized as the official mandate of the police (Paoline, 2003).

According to Paoline (2003), the problems officer face in both their occupational and organizational environments, in addition to the coping mechanisms prescribed by the police culture, produce two defining outcomes of the police culture: social isolation and group loyalty. The hostility and danger inherent in police work as well as the coercive authority that officers possess ultimately separates police from "nonpolice." Due to this separation, officers tend to identify and socialize exclusively with other officers. Eventually, the officers develop a "we versus" them mentality toward the public which contributes to a strengthening of the bond between officers and yields the second defining outcome of police culture – strong group loyalty. Officers depend on one another for both physical and emotional protection and support due to the danger, uncertainty and anxiety within both the occupational and organizational environments (Paoline, 2003).

Psychology of Work and Unemployment

O'Brien (1986) asserts that it is a common observation that differences between people can be partly understood by their occupations. Various theories of work motivation adopt the perspective that one's personality is an unchangeable and stable behavioral disposition. While

research efforts are devoted to showing how differences in work values, personal control and needs for personal growth affect one's motivation and performance, theories are limited in context of how a person's behavioral attributes change as a result of work experiences. O'Brien (1986) points to the influential job characteristic theory of work motivation and productivity by Richard Hackman and Greg Oldham in 1980 which states that jobs high on certain core dimensions – task identity, task significance, skill-variety, autonomy and feedback – induce experiences and feelings of meaningfulness, responsibility and knowledge among workers. These types of experiences are said to be both rewarding and motivating to employees, resulting in high levels of productivity and positive evaluations of their job (O'Brien, 1986).

By stark contrast, O'Brien (1986) argues that Freudian theory sees the structure of work only as necessary for both survival and the development of the ego functions. He further contends the Freud's theory says very little about the potential of work content for facilitating psychological growth. Freud's outlook of work is a rather pessimistic one and views employment as only a necessity in one's life born out of the need to survive. O'Brien (1986) contends, however, that as industrial civilization progressed, so did the structure of work and psychological development. He points to writers such as Thomas Carlyle, John Ruskin, and William Morris whose basic assumption is that men become what they do. Their work reflected the simple assertion that if job responsibilities allow workers to use their skills, make responsible decisions and learn new skills, then their intellectual capacity and life satisfaction will grow and they will develop healthy self-esteem as well as a sense of personal control (O'Brien, 1986).

O'Brien (1986) expounds upon self-actualization theories stating that they are characterized by a belief that a dominant motive for human behavior is the drive to express one's individual skills and capacities in the fullest way possible. The full actualized person, then, is

one who has found joy in being what they are potentially capable of being. To further illustrate this, O'Brien (1986) points to Abraham Maslow's theory of human motivation and hierarchy of needs. This theory declares that self-actualization can be accomplished by a person who (1) has work that positively uses his or her capacities, (2) is free of illness, (3) is gratified to a 'sufficient' extent in the lower needs, and (4) is committed to a certain set of values such as truth, uniqueness, wholeness, perfection and self-sufficiency. O'Brien (1986) contends that for Maslow, the self-actualizing person views his work as a mission or a calling and the distinction between work and play simply disappears.

O'Brien (1986) also points to a related theory by Frederick Herzberg in 1966 that endeavors to specify task attributes necessary for psychological growth. The work of Herzberg, much like that of Maslow, emphasized the importance of task experience at work as a determinant of psychological growth. He asserted that people were productive, satisfied and mentally healthy to the extent that work provided opportunities for achievement, recognition, challenge, responsibility and advancement of learning (O'Brien, 1986).

Given the vast array of work-motivation and self-actualization theories, O'Brien (1986) suggests that in today's society, people tend to define their identity, self-esteem and personal competence on the basis of their valued skills. Furthermore, a job that uses skills implicitly gives the user a sense of personal control. However, O'Brien (1986) argues that identity bases on personal control and skill-use is not relevant for those who are no longer in the workforce, as society does not judge retirees on their contribution to and involvement in tasks requiring self-direction and personal control. He points to several studies which have shown that adjustment to retirement is partly determined by an individual's locus of control. Internally controlled retirees generally reported higher levels of contentment and happiness than externally controlled

individuals and the relationship between locus of control and life satisfaction was generally stronger for males than for females. However, O'Brien (1986) notes that one oversight of these studies is that they did not control for health. He argues that poor health, either physical or mental, could strongly determine an individual's perception of personal control. Furthermore, O'Brien (1986) contends that studies should also examine retiree's previous occupations as a determinant of locus of control. He states that if work determines personality, and locus of control is a personality variable, then it is reasonable to expect that work experiences could affect retirement adjustment via personality (O'Brien, 1986).

Chapter 3

METHODOLOGY

Research Questions and Hypotheses

After review of the literature presented in the previous chapter, it was evident to this researcher that the influence of forced medical retirement upon symptoms of depression, anxiety, and stress in law enforcement officers required further examination. Although much research has been done about the law enforcement profession and subsequent retirement, relatively little research has focused strictly on the role of early retirement and the resulting psychological outcomes. The research questions under investigation in this study were:

RQ1: Is there a difference in symptoms of depression, anxiety and stress for police officers forced into medical retirement when compared to those who retire after completed service?

RQ2: What influence do coping skills and support systems have in symptoms of depression, anxiety and stress in retired police officers?

RQ3: Are there other mediating variables, such as availability of employee assistance programs and gender that contribute to symptoms of depression, anxiety and stress for retired police officers?

The researcher was interested in the influence of not only retirement-type variables, but other, possible intervening variables as well. There were two independent variables, three dependent variables and three mediating variables included in the study, which are discussed in further detail in the methods section of this chapter. These variables corresponded to the following hypotheses:

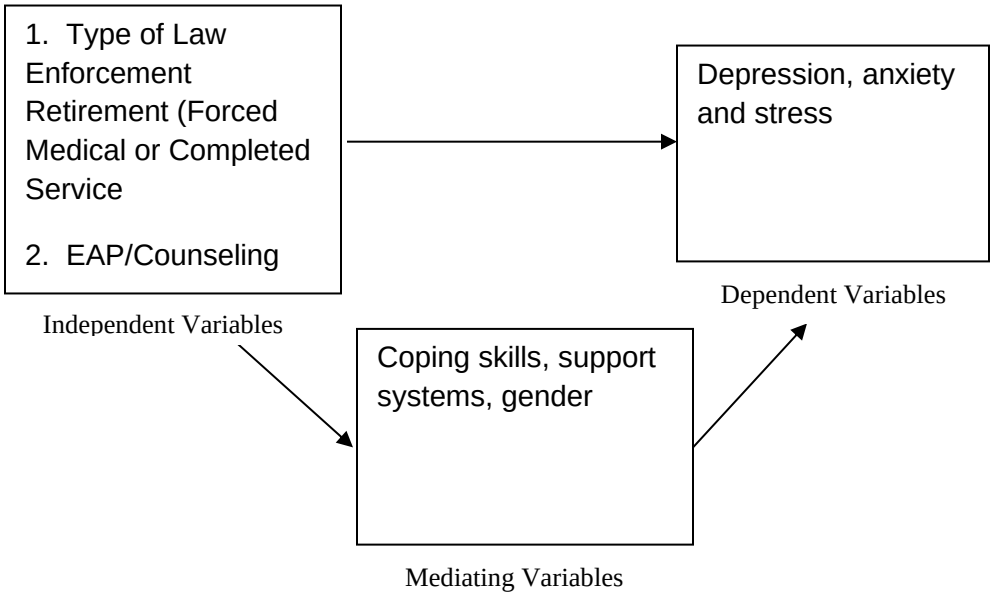
HR_1: There is a statistically significant difference in an increase of symptoms of depression, anxiety and stress for those law enforcement officers forced into medical retirement as compared to those officers who retire after completed service.

HR_2: There is a statistically significant difference in a decrease of symptoms of depression, anxiety and stress for those retired law enforcement officers who report a strong support system and adaptive coping mechanisms.

HR_3: There is a statistically significant difference in a decrease of symptoms of depression, anxiety and stress for those retired law enforcement officers who participated in EAP or retirement counseling as compared to officers who did not participate.

Conceptual Model

Figure 1



Methods

This study used a quantitative method design to test the previously stated hypotheses, wherein an investigator relies upon testing objective theories by examining the relationship among variables. Quantitative research allows these variables to be measured through testing instruments and resulting numbered data can be analyzed via statistical procedures (Creswell, 2014). This chapter presents information about the method used by the researcher for data collection and analysis. Information regarding sampling, research design, the survey method, reliability, validity, human subject protection, weaknesses and strengths of the research design and data analysis are included.

Sampling

The unit of analysis for this study was retired law enforcement officers. The researcher was interested in gathering data from law enforcement officers who retired after years of completed service or who were forced to retire early from their careers either for medical or other reasons. To address the research problem of forced medical retirement and its possible correlation to symptoms of depression, anxiety and stress in retired law enforcement officers, a convenience sample was drawn from retired police officers. Retirees who still maintained an active duty status in law enforcement at another agency were eliminated from the sample population as they were still engaged in a police capacity. Only those retirees were who sworn officers with a municipal, state or federal law enforcement agency were included in the study. Those who worked in a corrections, security, or civilian capacity were also eliminated from the study. Participants were divided into two main groups: (1) those who retired after years of

completed service and (2) those who retired early due to illness, injury, disability, or other reasons.

Access

According to Maxwell (1996), access refers to establishing the relationship between the researcher and the research participants. To gain access to participants for this study, the researcher obtained accounts and login credentials for online law enforcement retiree groups such as: PoliceLink, Law Enforcement Today, and LEO Affairs. The researcher also joined retired law enforcement groups on Facebook® and LinkedIn®. In order to gain access to these groups, permission was requested from the site administrator and the researcher's former law enforcement status was verified. Once access was granted to the retiree forums, the researcher posted announcements regarding the study as well as a link to the online survey.

Research Design

This research utilized a survey design to obtain quantitative data from the target population. From the sample results, this researcher was able to generalize or draw inferences to the population about their characteristics, attitudes or behaviors. An additional advantage of the survey method is that it is economical and provides for a rapid turnaround in the data collection process (Creswell, 2014). This design method was chosen primarily since surveys are commonly used for descriptive research and are best suited for studies that use individual people as the units of analysis. Furthermore, surveys are especially useful in describing the characteristics of a larger population. Standardized questionnaires provide an additional advantage in regard to measurement as each participant is asked the same series of questions. (Maxfield & Babbie, 2009).

Weaknesses in survey research are also acknowledged in this study. Maxfield and Babbie (2009) assert that standardized questionnaires often represent the least common denominator in assessing participant experiences. They argue that by designing questions that are at least minimally appropriate to *all* respondents, researchers run the risk of missing what is most appropriate to *many* respondents. Therefore, some surveys may appear superficial in nature and in their coverage of complex topics. In addition, survey research is generally considered weaker on validity though they are stronger on reliability. When compared with field research, the disingenuousness of the survey format puts a strain on the validity. However, reality is sounder in that all participants are presented with a standardized stimulus (Maxfield & Babbie, 2009).

Survey Method

A cross-sectional design was used to collect data using online surveys during a 30-day time period. In cross-sectional studies, time is assumed to have merely a random effect that produces only variance rather than bias. Cross-sectional surveys are commonly used in research to collect data that cannot be directly observed, but rather are self-reported by participants and reflect observations such as opinions, attitudes, values and beliefs. This allows the researcher to examine the characteristics of the sample population (Lavrakas, 2008).

Cross-sectional data are often collected through the use of self-administered questionnaires. With this method, researchers have the ability to put together a survey study using one or more questionnaires measuring the target variables. In a single-source cross-sectional study, participants are asked to provide all data about themselves with the questionnaire typically being administered in a single session. Data can be collected from individuals, groups, organizations or other units of analysis. Since data are collected only at one point in time,

researchers are able to use the data to determine the frequency distribution of certain behaviors, opinions, attitudes or beliefs as well as make comparisons between subgroups. Cross-sectional data has shown to be quite efficient in testing the associations between two or more variables (Lavrakas, 2008).

Lavrakas (2008) points out that there are both advantages and disadvantages to using a cross-sectional survey design. One of the numerous advantages is that research participants are typically more willing to cooperate in just a one-time study versus a series of multiple surveys taken over a period of time. Additionally, researchers conducting cross-sectional studies do not have to worry about the attrition problems that abound in longitudinal studies wherein participants may not provide subsequent data as needed. Furthermore, researchers are able to collect cross-sectional data from multiple individuals, organizations or others. Lastly, when compared to longitudinal studies, cross-sectional data are far less expensive and less time consuming to collect. One distinct disadvantage of cross-sectional studies, however, is that cross-sectional data are not appropriate for examining any changes that may occur with participants over a long period of time (Lavrakas, 2008).

Data Collection

The current study utilized a self-administered online survey through Survey Monkey® during a 30-day time period. The self-administered survey method was the most appropriate for this study for multiple reasons. First, the convenience of online surveys allows the researcher to access the sample population with relative ease. Second, the sample population could be assured of both anonymity and confidentiality with an online survey, making the respondents far more willing to participate in the study. Third, online surveys provide a faster, more efficient method for gathering research data than do mail surveys. Lastly, interviews and personal contact with

research participants may add the potential for bias and inconsistency in the administration of the survey instrument, therefore the information collected may not have provided the concrete data required for statistical analysis.

In this study, a questionnaire at the beginning of the survey was devised to assess demographic information, rank, and age at time of retirement, as well as the type of retirement process the officers participated in. The questionnaire also assessed whether the retiree was provided with pre-retirement counseling, post-retirement counseling or services through an Employee Assistance Program.

To evaluate symptoms of depression, anxiety and stress in retired law enforcement officers, the researcher used the Depression Anxiety and Stress Scale (DASS), which is in the public domain and may be used freely for dissertation research (Appendix A). For the purpose of this study, the DASS-21 was used, rather than the 42-item questionnaire. The DASS-21 is a 21-item questionnaire which includes a set of three self-report scales for the respondents. Each scale is designed to measure the negative emotional states of depression, anxiety, and stress. Each of the three scales contains seven items which are divided into subscales with similar content. The DASS-21 is based upon a dimensional conception of psychological disorder, rather than a categorical conception. The development of the DASS-21 was based upon the assumption that the differences between the depression, anxiety and the stress experienced by normal subjects and clinical populations are merely differences of degree (Lovibond and Lovibond, 1995).

The Depression scale assesses feelings of hopelessness, devaluation of life, self-depreciation and lack of interest or involvement. The Anxiety scale assesses such feelings of situational anxiety and subjective experience of anxious effect. Lastly, the Stress scale assesses

difficulty relaxing, being easily upset or agitated, irritability, impatience and over-reactiveness. Respondents score their feelings using a four-point severity/frequency scale to rate the extent to which they have experienced each state over the past week. Scores for depression, anxiety and stress are calculated by summing each of the respective scores for the relevant items. Each of the self-report scores is then multiplied by two to calculate the final score. The ranges of these scores then determine whether the respondent's feelings fall into the categories of normal, mild, moderate, severe or extremely severe (Lovibond and Lovibond, 1995).

Henry and Crawford (2005) examined the construct validity of the DASS-21 in a cross-sectional, correlational and confirmatory analysis. In their study, the researchers point out that although anxiety and depression are phenomenologically distinct, it is difficult to distinguish between these two constructs by empirical means through the use of either clinicians' ratings or self-report measures. They further point out that it has been suggested that this distinction is difficult primarily because most existing self-report scales for anxiety and depression predominantly measure the common factor of negative affectivity. High negative affectivity reflects experience of subjective distress and unpleasurable engagement, while low negative affectivity reflects the absence of these feelings (Henry and Crawford, 2005).

Henry and Crawford (2005) selected the DASS-21 rather than the full-length 42-item DASS due to the fact that three items from the DASS have consistently been shown to reduce the discriminant validity of the measure. These include anxiety item 9, stress item 33, and anxiety item 30. All three of these weak items have been omitted in the shortened DASS-21 version. The study by Henry and Crawford (2005) acknowledges that prior research has demonstrated that the full-length DASS possesses adequate convergent and discriminant validity in samples drawn from the normal population. In addition, reliability, assessed using Cronbach's alpha, has

also been shown to be acceptable for all three scales (depression, anxiety and stress) in both clinical and non-clinical samples (Henry and Crawford, 2005).

Henry and Crawford (2005) point out in their study that in developing the DASS-21, at least one item was selected from each of the subscales of the 42-item DASS. However, prior to this study, no research has actually assessed whether it is legitimate to assume that norms derived from the full version of the DASS are directly equivalent to doubling the DASS-21 scores. The study by Henry and Crawford (2005) then, sought to accomplish three aims: (1) to provide normative data for the DASS-21; (2) to obtain estimates of the reliability of the DASS-21; and (3) to evaluate competing models of the latent structure of the DASS-21 using confirmatory factor analysis. Data was collected from 1,794 members of the general adult population in the UK using the full-length DASS version. The 21-item measures used in the DASS-21 were then extracted, doubled and compared with scores from the full DASS. Correlations between the DASS-21 scores and other psychometric scales were also conducted. Analysis demonstrated that the DASS-21 does provide good evidence of convergent and discriminant validity when compared with other validated measures of depression and anxiety. The researchers concluded that the DASS-21 subscales can validly be used to measure dimensions of depression, anxiety, and stress and that the utility of the measure is further enhanced by the provision of normative data based on a large sample (Henry and Crawford, 2005).

To evaluate respondents' perceptions of social support, this researcher used the Multidimensional Scale of Perceived Social Support (MSPSS), which is in the public domain and may be used freely for dissertation research (Zimet, Dahlem, Zimet, & Farley, 1988) (Appendix B). The MSPSS is a 12-item questionnaire which includes a set of seven self-report scales for the respondents and uses a 7-point Likert-type scale that ranges from "very strongly

disagree" to "very strongly agree." There are a number of qualities of the MSPSS that provide an advantage over other previously used social support scales. Firstly, while other scales have previously failed to analyze separately the quantitative and qualitative aspects of social support or focused exclusively on the objective or quantitative measurement, the MSPSS specifically addresses the subjective assessment of social support adequacy. In addition, the MSPSS was designed to assess perceptions of social support adequacy in three distinct categories of family, friends and significant others. Some other scales in prior research have contained items addressing these sources of support, however, most did not consider them as potentially separate and distinct subgroupings. Furthermore, the MSPSS is shown to be psychometrically sound, with good reliability, factorial validity, and adequate construct validity. Lastly, the MSPSS is self-explanatory, easy to use and time-conserving, which makes it an ideal research instrument for use when subject time is limited or a number of other measures are being administered at the same time (Zimet, et. al, 1988).

In the study by Zimet, et. al (1988), both the internal reliability and test-retest reliability of the MSPSS were established. The researchers of the Zimet study used factor analysis to determine the validity of considering different sources of support as distinct from one another. To address the construct validity of the scale, the relationship between perceived social support and the presence of the symptoms of depression and anxiety were investigated. The study hypothesized that high levels of perceived social support would be associated with low levels of depression and anxiety symptomology (Zimet, et. al, 1988).

In a confirmation study by Dahlem, Zimet and Walker (1991), the psychometric properties of the MSPSS were examined and the following areas investigated: internal reliability, factorial validity, social desirability bias, and the moderating effect of social support between

stressful life events and depression. Dahlem, et. al (1991) contend that the rise of stressful life events such as escalating health care costs, family malfunction and disintegration and rising suicide rates has led investigators to more closely examine the impact of life stress and social support upon both physical and mental well-being. However, they point out that more clarification is required to achieve a reasonable understanding of these relationships. Dahlem, et. al (1991) note that prior studies utilizing the MSPSS all suggested that the scale is psychometrically sound and bears strong test-retest reliability, internal reliability, and factorial validity. In addition, in a more recent study, the construct validities of the Significant Other and Family subscales of the MSPSS were demonstrated. The 1991 study by Dahlem, et. al sought to further validate the MSPSS by investigating correlations between and among designated subscales of the MSPSS and correlate MSPSS scores with a measure of response bias. The study also investigated whether the buffering hypothesis is a viable explanation for relationships demonstrated earlier between stress and depression (Dahlem, et. al, 1991).

Dahlem, et. al (1991) administered the MSPSS, along with the Beck Depression Inventory (BDI) , the Life Experience Survey (LES), and a version of the Marlowe-Crowne Social Desirability Scale to 170 college students. 154 surveys were returned completed. The results indicated that the levels of social support reported by the subjects in the present study were comparable to the levels reported in previous research. The Friends subscale of the MSPSS was correlated significantly with both the Significant other subscale and the Family subscale and the Significant Other and Family subscales were also correlated. Comparisons of correlations showed that the Significant Other-Family correlation was significantly smaller than the Friends-Family correlation and that correlation was also significantly smaller than the Friends-Significant

other correlation. Coefficient alpha values indicated excellent internal reliability and were consistent with results from previous studies (Dahlem, et. al, 1991).

In order to assess respondents' coping reactions, this researcher utilized the Brief COPE scale (Carver, 1997). Carver (1997) contends that studies of coping in applied settings are often confronted by the need to minimize the time demand on participants. The amount of time and effort demanded by a research project can be substantial. The larger the demand of time on the participants, the less likely they are to continue their involvement in the study. The issue of participant burden is further impaired by the fact that these studies typically are designed to test multiple hypotheses within the same sample and entails the use of many time-consuming measures. The Brief COPE scale was derived from the previously published measure known as the COPE inventory in 1989 by Carver, Scheier and Weintraub. It provides a research benefit in that it is a brief measure of coping assessing several responses known to be relevant to effective and ineffective coping (Carver, 1997).

The full COPE inventory is a 60-item instrument with 4 items per scale and is comprised of 15 scales, each with a specific conceptual focus. Several of the COPE scales focus theoretically meaningful aspects of coping, while others were included merely because previous evidence suggested the importance of those particular aspects of coping. Evidence suggests that many of the coping responses assessed by the COPE inventory are important in the coping process and some are predictive of prospective physiological effects. The resulting Brief COPE is comprised of 28 items with 14 scales of two items each. Two items from the full COPE inventory, Restraint Coping and Suppression of Competing Activities, were omitted from the Brief inventory as they had not proven useful in previous research. Three of the scales, were refocused slightly as they had proven to be problematic in previous studies and were modified to

sharpen their focus. Positive Reinterpretation and Growth became Positive Reframing. Focus on and Venting of Emotions became Venting, and Mental Disengagement became Self-Distraction. In addition, one scale, not previously part of the full COPE, was added because of evidence of the importance of that response. The original COPE did not have a measure of self-blame, therefore two items were added which reflected self-blaming tendencies (Carver, 1997).

The Brief COPE was administered to 168 participants recruited from a community that had been seriously affected by Hurricane Andrew. Initial data collection took place between three and six months after the hurricane with 124 participants completing a follow-up assessment six months later. A third assessment was conducted after a one year period with 126 participants. Procedures used to assess the soundness of the internal structure of the Brief COPE showed that it was remarkably similar to that reported for the full inventory. Despite the fact that the scales are only two items each, their reliabilities all met or exceeded the value of .50 which is regarded as minimally acceptable. All data in the analysis confirmed the reliability and validity of the abbreviated COPE scales (Carver, 1997).

Carver (1997) asserts that the Brief COPE is intended to foster a wider examination of coping in naturally occurring settings. He further notes that the instrument need not be used in an "all-or-none" fashion and that researchers who have very focused interests can selectively use the scales that are of interest to their samples. In addition, the items can potentially be used in various ways and can assume a retrospective, situational format, a concurrent, situational format or even a dispositional format. Each of the changes in format requires a change in the phrasing of response options and orienting instructions for participants. According to Carver (1997), the flexibility of application of the items is solely determined by the needs and imagination of the research using them. To that end, this researcher used 14 items from the Brief COPE (Appendix

C), focusing on the following scales: active coping, denial, substance use, use of emotional support, behavioral disengagement, venting and acceptance.

Variables

The dependent variables in the current study for all research questions are symptoms of depression, anxiety, and stress in retired police officers. The first research question yields the independent variable of the type of law enforcement retirement the officer was subjected to, i.e. forced medical/early retirement, or retirement after completed service. The second research question focuses on that independent variable as well as the additional variable of whether the officer received any support from an Employee Assistance Program (EAP) through the law enforcement agency either prior to or after their retirement, or whether the officer received any pre-retirement or post-retirement counseling. The independent variables of "type of retirement" and "EAP support" were measured dichotomously as nominal level variables.

Respondents were first asked whether they retired from their law enforcement careers after years of completed service, or if they were forced to retire early due to medical or other reasons. A retirement after years of completed service was coded with a "1" while early retirement was coded with a "2." Next, respondents were asked if they had participated in any agency-sponsored programs such as employee assistance, pre-retirement counseling, post-retirement counseling or exit interviews. Responses that indicated the retired officer had participated in such programs were coded with a "1" and those who did not were coded with a "2."

Respondents were asked to disclose their gender in the demographics section of the survey. Responses indicating the participant was male were coded with a "1" and responses for female were coded with a "2." The next section of the survey included statements from the

DASS-21. After reading each statement, respondents were asked to rate their levels of depression, anxiety and stress during the past week on a scale from 0 to 3. A score of 0 corresponded to the phrase "Did not apply to me at all," a score of 1 corresponded to the phrase "Applied to me to some degree, or some of the time," a score of 2 corresponded to the phrase "Applied to me to a considerable degree, or a good part of the time," and a score of 3 corresponded to the phrase "Applied to me very much, or most of the time." Scores were calculated according to the DASS-21 score guide and coded into categories as follows: 1=Normal, 2= Mild, 3= Moderate, 4=Severe and 5=Extremely Severe.

This study also examined what mediating variables are present that may impact the outcome of the research. The mediating variables this research explored included how the law enforcement retiree perceives his or her support systems in their lives as well as how they cope with the present stressors in their lives. Furthermore, this study sought to determine if gender serves as a mediating variable in the data outcomes.

Respondents were then asked to read statements from the MSPSS regarding their perceived levels of social support from family, friends and significant others. After reading each statement, respondents were asked to rate their feelings on a scale of 1 to 7. A score of 1 corresponded to the phrase "Very strongly disagree," a score of 2 corresponded to the phrase "Strongly disagree," a score of 3 corresponded to the phrase "Mildly disagree," a score of 4 corresponded to the phrase "Neutral," a score of 5 corresponded to the phrase "Mildly agree," a score of 6 corresponded to the phrase "Strongly agree," and a score of 7 corresponded to the phrase "Very strongly disagree." Scores were calculated and categorized according to the MSPSS scales for Significant Other (SO), Family (FAM), and Friends (FRI).

Table 1

Coding for Variables and Demographics

Independent Variables	**Coding**
Type of Retirement	Completed Service = 1 Early for Medical/Other = 2
Participation in EAP, Retirement Counseling, etc.	Yes = 1 No = 2
Dependent Variables	
Depression	Normal = 1 Mild = 2 Moderate = 3 Severe = 4 Extremely Severe = 5
Anxiety	Normal = 1 Mild = 2 Moderate = 3 Severe = 4 Extremely Severe = 5
Stress	Normal = 1 Mild = 2 Moderate = 3 Severe = 4 Extremely Severe = 5
Mediating Variables	
Coping Skills: *Active coping* *Denial* *Substance abuse* *Emotional Support* *Behavioral disengagement* *Venting* *Acceptance*	Not at all = 1 A little = 2 A medium amount = 3 A lot = 4
Support system: *Family* *Friends* *Significant other*	Very strongly disagree = 1 Strongly disagree = 2 Mildly disagree = 3 Neutral = 4 Mildly agree = 5 Strongly agree = 6 Very strongly agree = 7
Gender	Male = 1 Female = 2

Lastly, respondents were asked to read statements from the Brief Cope 14-item list. After reading each statement, respondents were asked to rate their feelings on a scale of 1 to 4. A score of 1 corresponded to the phrase "I haven't been doing this at all," a score of 2 corresponded to the phrase "I've been doing this a little bit," a score of 3 corresponded to the phrase "I've been doing this a medium amount," and a score of 4 corresponded to the phrase "I've been doing this a lot." Final scores for each statement were categorized as follows: items 2 and 7 = Active coping, items 3 and 8 = Denial, items 4 and 11 = Substance use, items 5 and 15 = Use of emotional support, items 6 and 16 = Behavioral disengagement, items 9 and 21 = Venting and items 20 and 24 = Acceptance.

Ethical Considerations

This study was subject to review and approval of Nova Southeastern University's Institutional Review Board for Research with Human Subjects. Required IRB documents were prepared in accordance with NSU policies and procedures. These documents included, but were not limited to, the New Protocol Form (Submission Form for Initial Review) as well as informed consent forms, completed informed consent checklists, and data collection instruments. Material was provided to the IRB including information about the principal investigator, the type of proposed study, type of review requested, and the number and type of subjects. The application also included a description of the research, its significance, methods and procedures, and participants (http://www.nova.edu/irb/process.html).

Utilizing the informed consent checklist provided by the IRB, an informed consent form was devised. This form acknowledged that participation in the research is voluntarily in nature and that each participant is guaranteed certain rights and those rights are protected. The informed consent statement was displayed in the online survey instructions and required an

acknowledgement by the participant before proceeding to the questionnaire. The anonymity and confidentiality of the participants was protected by the use of a numerical coding system for each submitted online survey. All research data, including copies of the survey questionnaires, are being kept in password protected files on the researcher's laptop computer. Participants were informed that only summary data will be distributed to the professional community and that no personal or identifying information will be made available to agencies or individuals.

An additional ethical consideration for this study included the possibility that the survey questions may be thought provoking for some participants and yield some discomfort. Although this posed only a minimal risk of harm to the participants, this researcher addressed any possible discomfort of respondents by providing additional resources along with the survey questionnaire. Participants in the study were referred to links to various law enforcement peer support groups, crisis hotlines, and counseling services. In addition, participants were provided with information regarding symptoms of depression and anxiety and ways in which to seek help.

Data Analysis

This section presents the statistical techniques that were used for interpreting the data. Data analysis incorporated both descriptive and inferential statistics. Survey data were analyzed using data using the IBM® SPSS® Student GradPack. Data analysis includes an overview of the descriptive statistics of data for all independent and dependent variables including the means, standard deviations, distributions and range of scores for these variables (Creswell, 2014).

This study further analyzes the survey data through the use of inferential statistics including: independent *t test,* ANOVA and multiple regression analysis. The *t test*, developed by William Gosset, is a test of the null hypothesis which yields a probability that a given null hypothesis is correct. There are three basic factors which interact with each other in determining

the probability factor: (1) The larger the samples, the less likely the difference between two means was created by sampling errors; (2) The larger the observed difference between the two means, the less likely that the difference was created by sampling errors; and (3) The smaller the variance among the participants, the less likely it is that the difference between two means was created by sampling errors and more likely the null hypothesis will be rejected (Pyrczak, 2006). The independent *t test* was selected for this study since the independent variables of type of retirement and EAP/Counseling are nominal dichotomous variables and this researcher was primarily interested in determining whether or not there is a statistical difference between the DASS scores for those groups of retired law enforcement officers.

Research data for this study was also analyzed using ANOVA or *one-way analysis of variance*. Unlike the *t test*, which is used primarily to test the difference between two means, ANOVA is used to test the significance of group differences between two means or more in a single test. By rejecting the null hypothesis, a researcher is able to reject the notion that one or more of the differences in the data were created at random by sampling error. ANOVA is appropriate to use in a study when the independent variable is defined as having two or more categories and the dependent variable is quantitative (Pyrczak, 2006). For the purposes of this study, this researcher utilized the one-way ANOVA for determining the significance of the participants' rank at the time of retirement on symptoms of depression, stress and anxiety.

In addition to the independent t-test and ANOVA, research data for this study was also analyzed using a multiple regression analysis. The primary goal of multiple regression is to "estimate the effect of several independent variables on a dependent variable" (Bachman & Paternoster, 1997, p. 490). Multiple regression allows the researcher to predict the value of the dependent variable based upon a linear combination of several independent variables. This study

was primarily interested in predicting the influence of both independent variables and mediating variables on retired law enforcement officers' levels of depression, stress and anxiety.

According to Miethe (2007), there are two primary reasons why researchers use multiple regression analysis. First, human behavior is quite complex and there is rarely a single cause for why people behave as they do. Therefore, researchers employ the use of multiple regression to analyze that phenomena that they believe may result from multiple influences. Multiple regression demonstrates the relative importance of multiple independent variables within the same analysis. In addition, it is able to isolate the contribution of each independent variable within that equation. Secondly, in social sciences studies, researchers are interested in determining which of those multiple causes of behavior is central in explaining and understanding the variation in the dependent variable. Referred to as providing statistical control, this allows researcher to analyze other variables causing variation within the dependent variable (Miethe, 2007).

Summary

This study utilized a survey design to obtain quantitative data from the target population. The survey method is advantageous in that it is economical and provides for a much faster turnaround time in the data collection process. The cross-sectional nature of the study will allowed for data collection through the survey for a 30-day time period. The sample population was drawn from online police retiree groups and they were given access to a link to participant in the online survey. Participants were divided into two main groups: (1) those who retired after years of completed service and (2) those who retired early due to illness, injury, disability or other. The online survey included questions from the DASS-21, which has been demonstrated to be both a reliable and valid instrument. Data analysis includes an overview of the descriptive

statistics of the data for all independent and dependent variables as well as analysis of correlational statistics.

Chapter 4

ANALYSIS AND FINDINGS

This chapter describes the analyses conducted in this study in order to test the above stated research hypotheses. First, the chapter provides information about the sample. Secondly, the descriptive statistics about the variables included in the study are discussed, including a description of the demographic characteristics of the law enforcement retirees participating in the survey. Next, results of the independent t-test and multiple regression analysis are presented in regards to the following research questions: (a) Is there a difference in symptoms of depression, anxiety and stress for police officers forced into medical retirement when compared to those who retire after completed service? (b) What influence do coping skills and support systems have in symptoms of depression, anxiety and stress in retired police officers? (c) Are there other mediating variables, such as availability of employee assistance programs and gender that contribute to symptoms of depression, anxiety and stress for retired police officers? Finally, the chapter will conclude with a summary of analysis and findings.

Sample

The analysis was based upon a sample of 272 retired law enforcement officers from across the nation. Announcements were posted in online law enforcement retiree forums in PoliceLink, LEO Affairs, Linked In® and various retired police officer groups on Facebook®. The announcement included information regarding the nature of the study, its voluntary participation and a link to the online survey at www.surveymonkey.com. The first page of the survey contained the informed consent information. Respondents were assured of both confidentiality and anonymity in completing the survey. Of the 272 officers who viewed the

survey, 46 of those declined to participate. The data from the resulting 226 participants were included in this study, which yielded a response rate of 83%.

The online survey included several questions aimed at obtaining demographic information from the participants including "gender", "race", "current age", "age at time of retirement", "marital status" and "rank at time of retirement". Table 2 below presents the frequencies, percentages, and measures of central tendency for these variables.

"Age" was measured as a continuous variable in this study, asking participants to record their age in years, as well as the age at which they retired from their law enforcement careers. Officers' ages ranged from 43-79 and the average age for officers in this sample was 59 years of age. The age at which officers retired from their law enforcement careers ranged from 28-77 and the average retirement age for officers in this sample was 52 years of age. Participants were also asked to disclose their race/ethnicity, gender, marital status, and rank at the time of their retirement. "Race/ethnicity" was coded as White and Non-white, "gender" was coded as male or female, "marital status" was coded as married, single, divorced or separated and other, and "rank at time of retirement" was coded as officer, corporal, detective, sergeant, lieutenant, captain, major, chief, deputy chief, commander, special agent, special agent in charge, colonel and other. As Table 2 indicates, the overwhelming majority of participants were white (91.6%), male (95.6%) and married (83.2%). Therefore, race/ethnicity, gender and marital status were excluded from analysis in this study due to lack of variation within the sample.

Table 2

Descriptive Statistics for Sample Characteristics (n=226)

Variable Name	Variable Description	Coding	Distribution
Gender	Gender of participants	Male = 1	95.6%
		Female = 2	4.4%
Race/ethnicity	Race/ethnicity of participants	White = 1	91.6%
		Non-white = 2	8.4%
Age	Age of participants	Age in years	58.6
Age @ retirement	Age at time of participants' retirement	Age in years	52
Marital Status	Marital status of participants	Married = 1	83.2%
		Single = 2	5.8%
		Divorced/Separated = 3	10.2%
		Other = 4	.9%
Rank @ retirement	Rank at time of participants' retirement	Officer, corporal, detective = 1	29.6%
		Sergeant, lieutenant = 2	35%
		Captain, major, commander = 3	14.2%
		Chief, deputy chief, colonel = 4	11.9%
		Special agent, SAIC, other = 5	9.3%

The variable "rank at time of retirement" refers to the law enforcement rank held by the officer at the time of their retirement. The majority of the participants in this study reported to hold the rank of "sergeant" or "lieutenant" (35%) at the time of their retirement, followed closely by "officer," "corporal" or "detective" (29.6%). "Captains" and "majors" comprised 14.2% of the study, while "chiefs", "deputy chiefs" and "colonels" made up 11.9% of participants. Lastly, 9.3% of the respondents selected the category of "special agent", "special agent in charge," or "other." An ANOVA test was run to determine the level of significance that the variable "rank at the time of retirement" had on the dependent variables of "depression," "anxiety," and

"stress." There were no significant differences between these groups on any of the variables. Statistically significant relationships were determined based on an alpha level of .05 or less.

Independent Variables

For "type of retirement," participants were asked to disclose whether they retired after "years of completed service" or early due to "injury, illness, disability or other." "Years of completed service" was coded as "1" while "early retirement due to injury, illness, disability or other" was coded as "2." For this sample, 78.3% of participants reported to have retired after years of completed law enforcement service, while 21.7% of participants retired early for medical or other reasons. Participants in this study were also asked if they had participated in EAP, exit interviews, preretirement or postretirement counseling at the time of their retirement. Election to partake in retirement options was coded as "1" while nonelection was coded as "2." For this sample, 41.2% of participants elected to take part in these options, while 58.8% did not. Table 3 demonstrates the frequency count for each of the retirement type items and participation in EAP, exit interviews, preretirement or postretirement counseling options.

Table 3

Descriptive Statistics for Independent Variables (n=226)

Independent Variable Name	**n**	**Coding**	**Frequency 1**	**Frequency 2**	**Mean**	**Median**	**SD**
Type of retirement	226	1-2	177	49	1.2168	1.0	.41299
Participation in retirement options	226	1-2	93	133	1.5885	2.0	.49320

Mediating Variables

Participants in this study were asked to read statements in the MSPSS to assess their perceptions regarding their support systems from significant others, family and friends. After reading each statement on the MSPSS, respondents were asked to rate their feelings on a Likert scale of 1 to 7. The response of "Very strongly disagree" was coded as a "1," the response of "Strongly disagree" was coded as a "2," the response of "Mildly disagree" was coded as a"3", the response of "Neutral" was coded as a "4," a response of "Mildly agree" was coded as a "5," a response of "Strongly agree" was coded as a "6," and a response of "Very strongly disagree" was coded as a "7". Scores were calculated and categorized according to the MSPSS scales for Significant Other (SO), Family (FAM), and Friends (FRI). Results show that 38.1% of the participants in the study very strongly agreed that they had a good support system in their significant others, 27.9% strongly agreed they had a good support system in their family and 24.3% mildly agreed they had a strong support system in their friends. Table 4 displays the descriptive statistics for the mediating variable of perception of support system in significant others, family and friends.

Table 4

Descriptive Statistics for Mediating Variable of Support System (n=226)

Variable Name					
Significant Other					
	Frequency	Percent	Mean	Median	SD
			5.4779	6.0	1.69495
Very Strongly Disagree	9	4%			
Strongly Disagree	10	4.4%			
Mildly Disagree	8	3.5%			
Neutral	35	15.5%			
Mildly Agree	25	11.1%			
Strongly Agree	53	23.5%			
Very Strongly Agree	86	38.1%			

Family					
	Frequency	Percent	Mean 4.9204	Median 5.0	SD 1.70824
Very Strongly Disagree	12	5.3%			
Strongly Disagree	12	5.3%			
Mildly Disagree	23	10.2%			
Neutral	35	15.5%			
Mildly Agree	39	17.3%			
Strongly Agree	63	27.9%			
Very Strongly Agree	42	18.6%			

Friends					
	Frequency	Percent	Mean 4.6903	Median 5.0	SD 1.62524
Very Strongly Disagree	14	6.2%			
Strongly Disagree	11	4.9%			
Mildly Disagree	20	8.8%			
Neutral	48	21.2%			
Mildly Agree	55	24.3%			
Strongly Agree	49	21.7%			
Very Strongly Agree	29	12.8%			

Study participants were also asked to respond to statements from the 14-item Brief Cope in regards to their coping skills. After reading each statement on the Brief Cope, respondents were asked to rate their feelings on a Likert scale of 1 to 4. The response of "Not at all" was coded as a "1," the response of "A little" was coded as a "2," the response of "A medium amount" was coded as a"3", and the response of "A lot" was coded as a "4." Scores were calculated and categorized according to the Brief Cope scales for Active Coping, Denial, Substance Use, Emotional Support, Behavioral Disengagement, Venting and Acceptance. Results show that only 15% of the participants in the study agreed that they used Active Coping skills "a lot." A total of 86.3% of the participants acknowledged that they used Denial as a coping mechanism. On a fortunate note, an overwhelming 85.8% of participants did not turn to

Substance Use as a coping skill. However, 42.5% did not use Emotional Support for coping with their retirement. Of the participants in the study 88.5% did not succumb to Behavioral Disengagement and 67.3% did not utilize Venting as a coping skill either. Lastly, 38.1% of participants acknowledged that they had not yet obtained Acceptance in coping with retirement. Table 5 displays the descriptive statistics for the mediating variable of coping skills.

Table 5

Descriptive Statistics for Mediating Variable of Coping Skills (n=226)

Variable Name					
Active Coping					
	Frequency	Percent	Mean 2.2080	Median 2.0	SD 1.06505
Not at all	75	33.2%			
A little	63	27.9%			
A medium amount	54	23.9%			
A lot	34	15%			
Denial					
	Frequency	Percent	Mean 1.1637	Median 1.0	SD .44693
Not at all	195	86.3%			
A little	26	11.5%			
A medium amount	4	1.8%			
A lot	1	.4%			
Substance Use					
	Frequency	Percent	Mean 1.2345	Median 1.0	SD .65514
Not at all	194	85.8%			
A little	18	8%			
A medium amount	7	3.1%			
A lot	7	3.1%			
Emotional Support					
	Frequency	Percent	Mean 1.9248	Median 2.0	SD .95154
Not at all	96	42.5%			
A little	66	29.2%			

A medium amount	49	21.7%			
A lot	15	6.6%			

Behavioral Disengagement					
	Frequency	Percent	Mean	Median	SD
			1.1372	1.0	.41498
Not at all	200	88.5%			
A little	22	9.7%			
A medium amount	3	1.3%			
A lot	1	.4%			

Venting					
	Frequency	Percent	Mean	Median	SD
			1.4204	1.0	.67681
Not at all	152	67.3%			
A little	56	24.8%			
A medium amount	15	6.6%			
A lot	3	1.3%			

Acceptance					
	Frequency	Percent	Mean	Median	SD
			2.1858	2.0	1.12782
Not at all	86	38.1%			
A little	52	23%			
A medium amount	48	21.2%			
A lot	40	17.7%			

Dependent Variables

The descriptive statistics for the dependent variables used for this study are presented in Table 6 below. This study had three dependent variables: "depression," "anxiety," and "stress." Participants were asked to submit responses to statements from the DASS-21 questionnaire. After reading each statement, the participant was asked to select a number from 0-3 that indicated how much the statement applied to them over the past week. A response of "0" corresponded to "Did not apply to me at all," a response of "1" corresponded to "Applied to me to some degree, or some of the time," a response of "2" corresponded to "Applied to me a

considerable degree or a good part of the time," and a response of "3" corresponded to "Applied to me very much or most of the time." Scores were calculated and categorized according to the DASS-21 score guide for levels of Depression, Anxiety and Stress. Scores that ranged in the "Normal" category were coded as a "1," scores that ranged in the "Mild" category were coded as a "2," scores that ranged in the "Moderate" category were coded as a "3", scores that ranged in the "Severe" category were coded as a "4," and scores that ranged in the "Extremely Severe" category were coded as a "5." As a whole, the majority of the participants in this study ranked in the "Normal" category for all three dependent variables.

Table 6

Descriptive Statistics for Dependent Variables of Depression, Anxiety, and Stress (n=226)

Variable Name					
Depression					
	Frequency	Percent	Mean 1.6062	Median 1.0	SD 1.22918
Normal	171	75.7%			
Mild	15	6.6%			
Moderate	17	7.5%			
Severe	4	1.8%			
Extremely Severe	19	8.4%			
Anxiety					
	Frequency	Percent	Mean 1.4204	Median 1.0	SD 1.05634
Normal	188	83.2%			
Mild	9	4%			
Moderate	14	6.2%			
Severe	2	.9%			
Extremely Severe	13	5.8%			
Stress					
	Frequency	Percent	Mean 1.4735	Median 1.0	SD 1.02922
Normal	179	79.2%			
Mild	11	4.9%			

Moderate	19	8.4%
Severe	10	4.4%
Extremely Severe	7	3.1%

Analysis and Findings

Analysis of the data first began by exploring Research Question 1: "Is there a difference in symptoms of depression, anxiety and stress for police officers forced into medical retirement when compared to those who retire after completed service?" To do this, an independent samples t-test was conducted with SPSS® software using "depression," "anxiety," and "stress" as the dependent variables and "type of retirement" as the independent variable. Equal variances were assumed. The resulting analysis is presented in Table 7. The interpretation of these data shows that the type of retirement the law enforcement officer was subjected to does have a significant influence on symptoms of depression, anxiety and stress, therefore supporting HR_1: There is a statistically significant difference in an increase of symptoms of depression, anxiety and stress for those law enforcement officers forced into medical retirement as compared to those officers who retire after completed service.

Table 7

Independent Samples t-test: independent variable of retirement type

Variable	t	df	Sig.	Mean Difference
Depression Completed service n=177 Medical/Other n=49	-5.484	224	.000	-1.02398
Anxiety Completed service n=177 Medical/Other n=49	-6.363	224	.000	-1.00069
Stress Completed service n=177 Medical/Other n=49	-3.846	224	.000	-.62020

Next, the researcher examined Research Question 2: What influence do coping skills and support systems have in symptoms of depression, anxiety and stress in retired police officers? In order to test this question, a multiple regression analysis was run through SPSS®, using "retirement type", "coping skills" and "support systems' as independent variables and "depression", "anxiety" and "stress" as dependent variables. The resulting analysis is presented in Table 8.

Table 8

Multiple Regression Analysis for Dependent Variables (n=226)

	Dependent Variables		
	Depression	Anxiety	Stress
Independent Variables	**Correlations**	**Correlations**	**Correlations**
Support System – Significant Other	-.197	-.118	-.186
Support System – Family	-.220	-.129	-.221
Support System – Friends	-.134	-.092	-.128
Coping Skills – Active Coping	.284	.131	.283
Coping Skills – Denial	.539	.541	.517
Coping Skills – Substance Use	.452	.435	.421
Coping Skills – Emotional Support	.047	.116	.096
Coping Skills – Behavioral Disengagement	.533	.496	.513
Coping Skills – Venting	.478	.392	.491
Coping Skills – Acceptance	.159	.083	.161
Retirement Type	.344	.391	.249

	Dependent Variables		
	Depression	Anxiety	Stress

Independent Variables	**Mean**	**Std. Dev.**	**Sig.**	**Sig.**	**Sig.**
Support System – Significant Other	5.4779	1.69495	.001	.039	.002
Support System – Family	4.9204	1.70824	.000	.026	.000
Support System – Friends	4.9558	4.38966	.022	.084	.027
Coping Skills – Active Coping	2.2080	1.06505	.000	.024	.000
Coping Skills – Denial	1.1637	.44693	.000	.000	.000
Coping Skills – Substance Use	1.2345	.65514	.000	.000	.000
Coping Skills – Emotional Support	1.9248	.95154	.242	.041	.076
Coping Skills – Behavioral Disengagement	1.1372	.41498	.000	.000	.000
Coping Skills – Venting	1.4204	.67681	.000	.000	.000
Coping Skills – Acceptance	2.1858	1.12782	.008	.106	.008
Retirement Type	1.2168	.41299	.000	.000	.000

(Significant at the .05 level)

The data presented shows that retirement type, significant others, family, denial, behavioral disengagement, and venting are all predictors of symptoms of depression, anxiety and stress in the retired law enforcement officers participating in the study. Interestingly, the data demonstrates that while friends, active coping and acceptance all having significant influence on symptoms of depression and stress, they do not bear significant effect on symptoms of anxiety. Emotional support as a coping skill was not found to have any significant effect on symptoms of depression, anxiety or stress in the participants.

Evaluation of the Pearson's *r* correlation coefficient demonstrates a weak negative relationship to the dependent variable of "depression" for the independent variables of "significant other" and "friends." A weak negative relationship for the dependent variable of "anxiety" also exists for the independent variables of "family" and "friends," as well as for the

dependent variable of "stress" for independent variables of "significant others," "family," and "friends." A weak positive relationship is observed between "depression" and "emotional support," between "anxiety" and "active coping," "emotional support," and "acceptance," and finally between "stress" and "active coping," "emotional support," and "acceptance." A modest positive relationship is noted between "depression" and the variables of "family" and the coping skill of "acceptance," between "anxiety" and "substance abuse" and "behavioral disengagement," and lastly between "stress" and "retirement type."

The analysis also presents a moderate positive relationship between "depression" and "substance use," "venting" and "retirement type," between "anxiety" and "venting" and "retirement type," and finally between "stress" and "substance use" and "venting." Lastly, a strong positive relationship exists between "depression" and "behavioral disengagement," between "anxiety" and "denial," and between "stress" and "denial" and "behavioral disengagement." The interpretation of these data show that relationships between these variables do exist, therefore supporting, in part, $HR_{2:}$ There is a statistically significant difference in a decrease of symptoms of depression, anxiety and stress for those retired law enforcement officers who report a strong support system and adaptive coping mechanisms.

Lastly, the researcher examined Research Question 3: Are there other mediating variables, such as availability of employee assistance programs and gender that contribute to symptoms of depression, anxiety and stress for retired police officers? As previously noted, gender was excluded from analysis in this study due to lack of variation within the sample, therefore analysis was conducted using only participation in employee assistance or other programs as the independent variable. An independent samples t-test was conducted to evaluate the significance of participation in retirement or employee assistance programs on symptoms of

depression, anxiety and stress on retired law enforcement officers. The resulting analysis is presented in Table 9. The interpretation of these data shows that participation in employee assistance programs or retirement counseling does not have a significant influence on symptoms of depression, anxiety and stress, therefore it does not support HR_3: There is a statistically significant difference in a decrease of symptoms of depression, anxiety and stress for those retired law enforcement officers who participated in EAP or retirement counseling as compared to officers who did not participate.

Table 9

Independent Samples t-test: independent variable of participation in EAP, counseling, etc.

Variable	t	df	Sig.	Mean Difference
Depression	-1.810	224	.072	-.29922
Participation (yes) n=93				
Participation (no) n=133				
Anxiety	-1.293	224	.197	-.18441
Participation (yes) n=93				
Participation (no) n=133				
Stress	-1.320	224	.188	-.18328
Participation (yes) n=93				
Participation (no) n=133				

Summary

This chapter began with a description of the demographic characteristics of the 226 participating retired law enforcement officers, the variables, and an overview of the data analysis procedures. Several independent variables analyzed symptoms of depression, anxiety and stress in retirement law enforcement officers. Specifically, "retirement type" was shown to have the strongest influence in this study. The variables "coping skills" and "support systems" had moderate influence in symptoms of depression, anxiety and stress as friends, emotional support, and acceptance did not bear statistical significance. Significant others, family, active coping,

denial, substance use, behavioral disengagement, and venting were all statistically significant in the multiple regression analysis. Findings from analyses also showed that participation in employee assistance programs or retirement counseling do not effect retired law enforcement officers' symptoms of depression, anxiety and stress as this variable was not statistically significant.

Overall, there was strong support for one research hypothesis, some support for another, and no support for the last. Hypothesis 1 stated that "there is an increase in symptoms of depression, anxiety and stress for those law enforcement officers forced into medical retirement as compared to those officers who retire after completed service." This hypothesis statement was supported in an independent samples t-test, using "retirement type" as the independent variable. There was also support, in part, for hypothesis 2, which stated that there is a decrease in symptoms of depression, anxiety and stress for those retired law enforcement officers who report a strong support system and adaptive coping mechanisms." This hypothesis statement was supported in regards to support systems of significant others and family, but not of friends. In addition, it was supported in regards to coping mechanisms of active coping and venting, but not for emotional support and acceptance. Finally, there was no support for hypothesis 3 which stated that there is a decrease in symptoms of depression, anxiety and stress for those retired law enforcement officers who participated in EAP or retirement counseling as compared to officers who did not participate." An independent t-test utilizing the independent variable of program participation yielded no statistical significance.

The insights gained by this research will contribute to the quantitative data in existence regarding the impact of law enforcement retirement. This study will hopefully provide awareness to law enforcement agencies as to how they can best prepare their law enforcement

officers for retirement, whether an early retirement due to injury, illness or disability or after years of completed service.

Chapter 5 will provide an interpretation of the data and the conclusions of the research study. Findings will be presented in a manner that extends the knowledge base contained within the accompanying literature review. In addition, suggestions for policy, practice, and further research will be discussed.

Chapter 5

DISCUSSION AND CONCLUSIONS

The purpose of this study was to examine whether forced medical retirement of law enforcement officers significantly influenced symptoms of depression, anxiety and stress as compared to officers who retired after years of completed service. The sample population included retired law enforcement officers from across the United States. Data were collected using survey research methods and analyzed through quantitative analysis. This chapter first discusses limitations and strengths related to the research process. Next, a discussion of research findings is presented, followed by suggestions for future research. Finally, this chapter concludes with thoughts about the completed research study and symptoms of depression, anxiety and stress in retired law enforcement officers.

Strengths and Limitations

Given that the overall purpose of conducting research is to advance the understanding of a particular phenomenon, it is inherent upon the researcher to discuss both the strengths and the limitations of completed research studies. Doing so may assist researchers with future research designs. This section presents the limitations and strengths that correspond to the data collection process and analysis.

Much of the literature regarding law enforcement retirement has primarily focused on the aftermath of leaving the police profession after years of completed service. The transition from a position of authority as a law officer to civilian life is fraught with feelings of separation and detachment. This transition can become further complicated if the law enforcement officer must suddenly leave the profession due to an unexpected early retirement (Violanti, 1996). Prior research has demonstrated that nearly half of today's law enforcement retirees do not adjust well

to civilian life, yet there remains a paucity of literature specific to those officers who must retire suddenly, early or unexpectedly. Caudill and Peak (2009) assert that officers who have an opportunity to plan their retirement and have support from their departments throughout the process may cope much better during the retirement transition. This study attempted to close the gap in the literature by including measures for evaluating symptoms of depression, anxiety and stress in retired law enforcement officers not only after years of completed service, but from those who were forced to retire early as well. Thus, the overall strength of this study was the inclusion of certain dependent and independent variables related to law enforcement retirement.

The dependent variables for this study were symptoms of depression, anxiety and stress in retired law enforcement officers. Few studies have examined the triad of these symptoms in law enforcement retirees. Like the dependent variables utilized for this study, few of the prior studies have included the independent variables that were examined here. Furthermore, the few studies that have included these variables (i.e., "coping mechanisms and "support systems") did not evaluate them in the same manner. For example, prior research (Patterson, 2003) assessed coping skills of active law enforcement officers using the sixty-six-item Ways of Coping Questionnaire, rather than a more concise instrument. In addition, the Patterson study only evaluated active, not retired, law enforcement officers.

Limitations of the current study are also noted. First, this study utilized a convenience sampling method. While this is commonly done when conducting research in social science, it nevertheless limits the overall generalizability of the results. In addition, although the response rate for retired law enforcement officers in this sample was 83%, the sample contained only 226 participants. Lack of diversity within the sample also limited the current study. The sample primarily included law enforcement officers who retired after years of completed service

(78.3%), were male (95.6%), and white (91.6%). Due to lack of diversity within the sample, this study was not able to examine differences in symptoms of depression, anxiety and stress in retired law enforcement officers based on gender or race. Replication of this study among retired law enforcement officers with a larger sample size and increased diversity may serve to substantially increase the significance of these research findings.

Discussion of Research Findings

This section provides a discussion of the research findings from the current study. Items related to law enforcement retirement type are discussed first. Next, the results from the multiple regression analysis and mediating variables are discussed. Finally, a discussion of items related to participation in EAP and retirement counseling is provided.

Independent t-test: Retirement Type

Retirement from one's chosen field can be a transition that is often difficult to make. For law enforcement officers, that transition can become even more daunting. The law enforcement profession provides not only a sense of self-worth, but also a feeling of camaraderie (Caudill and Peak, 2009). Officers feel a sense of kinship and "brotherhood." The "thin blue line" as it is known is a tightly knit community into itself and the police subculture promotes a sense of bonding far beyond some other professions. When an officer makes the decision to retire from law enforcement, it is often not an easy choice to make. All too often, officers remain in their positions far beyond their productive work years, simply to remain a "part of the action" and community (Rehm, 1996). For those who do retire after years of completed service, many report a sense of loss, difficult adjusting to civilian life, and utter boredom. The same is often true for officers who must retire suddenly as they are completely unprepared for what lies ahead (Violanti, 1996). These officers may be forced to retire early due to an in-the-line-of-duty injury,

illness or other disability. Such a sudden departure from the law enforcement field may leave many officers with a loss of identity and connection with fellow officers (Violanti, n.d.).

The current study sought to evaluate whether a statistically significant difference exists in the symptoms of depression, anxiety and stress in retired law enforcement officers who left the profession after years of completed service, as compared to those who were forced to retire early. An independent samples t-test analyzed the data for symptoms of depression, anxiety and stress, with the independent variable of retirement type. The analysis demonstrates a .000 level of significance for all three dependent variables. Therefore, the data supports the hypothesis that there is a statistically significant difference in these symptoms, based upon the type of retirement the officer was subjected to.

Given that departure from a law enforcement career can be difficult, it is expected that a sudden withdrawal may prompt more significant findings of psychological outcomes. Kinnaird (2011) asserts that law enforcement isn't simply a job, but a way of life. Even though an officer may have left the badge behind, they maintain a law enforcement perspective in their everyday lives. According to Kinnaird (2011), how retired law enforcement officers look at people, where they sit in restaurants, scanning of locations and people, being suspicious of others, and maintaining vigilance in safety and security of loved ones never changes. When an officer is no longer able to depend on other officers or their agency for understanding and support, they may experience a heightened sense of psychological symptoms. While some officers are prepared for retirement after a lifelong career, the disabled officer who is forced to medically retire earlier than expected is immediately "thrown" into a new life which they are completely unprepared to handle (Kinnaird, 2011). Overall, the findings of the current study conclude that, for law

enforcement officers in this sample, the type of retirement the officer was subjected to contribute to symptoms of depression, stress and anxiety.

Multiple Regression: Coping Skills and Support Systems

Retirement from a beloved career prompts a major life course transition. This transition and how well individuals adjust to retirement has been the focus of much research over the years. Although the retirement process itself has received extensive study, the impact of retirement on the individual and the factors central to a successful adjustment to retirement life still remain somewhat unclear (Wang, Henkens, and van Solinge, 2011). Research question two of the current study asked, "What influence do coping skills and support systems have in symptoms of depression, anxiety and stress in retired police officers?" To evaluate this question, the researcher conducted a multiple regression analysis. The data demonstrates that a correlation does exist between some coping skills and support systems in regards to all three dependent variables. Statistical significance was noted for the support from significant others and family in regards to each of the dependent variables, yet only significant for the support system of friends for the variables of "depression" and "stress."

The findings of the current study are consistent with those discovered by Graf (1986) who in a study researching the relationship between social support and occupational stress among police officers found that an increase in supportive persons was consistently correlated with a decrease in perceived occupational stress. Generally, the participants very strongly agreed that they had a good support system in their significant others (38.1%), strongly agreed they had a good support system in family (27.9%) and mildly agreed they had a good support system in friends (24.3%). These findings are consistent with the research by Patterson (2003) regarding the effects of coping and social support on work and life stress among police officers.

Furthermore, Basinska and Wiciak (2013) affirm that social well-being, an indicator of social support, is a very important factor in one's happiness and that it includes a close relationship with family and friends.

Interestingly, the current study shows that most of the support influence is derived from significant others, indicating relationship satisfaction among the participants. Cutrona (1996) suggests four different mechanisms in which support systems may influence relationship satisfaction. First, during times of stress, support from a significant other may prevent emotional withdrawal and isolation. Second, strong support from a loved one may deter depression. Third, support from a significant other may prevent the escalation of conflict within the relationship. Lastly, support may increase the emotional intimacy of the relationship with the significant other.

The multiple regression analysis also showed statistical significance for the coping mechanisms of active coping, denial, substance use, behavioral disengagement and venting for all three dependent variables. The coping skill of emotional support, however, was not significant for the variables of "depression" and "stress" and the coping skill of acceptance was not significant for the variable of "anxiety." Patterson (2003) found that the main effect of life events was related to higher distress, but that seeking emotion-focused coping buffered the relationship between life events and distress. Emotion-focused coping is aimed at reducing or managing the emotional distress that is associated with a given situation, whereas problem-focused coping is aimed at problem solving or doing something to alter the source of the stress. Although most stressors may cue both types of coping strategies, problem-focused coping prevails when people feel that something constructive may be done. Conversely, emotion-

focused coping tends to predominate when people feel that the stressor is something that must be endured (Carver, Scheier, and Weintraub, 1989).

The findings of the current study are also consistent with the research of Holahan and Moos (1987) in a study examining personal and contextual predictors of active and avoidance coping strategies in a sample of over 400 adults and a sample of over 400 persons entering psychiatric treatment for unipolar depression. The findings of the Holahan and Moos (1987) study showed that among both samples, active and avoidance coping were positively associated with negative life events. The participants who had more personal and environmental resources were more likely to rely on active coping strategies and less likely to use avoidance coping. Overall, these findings support, in part, hypothesis two that there is a statistically significant difference in a decrease of symptoms of depression, anxiety and stress for those retired law enforcement officers who report a strong support system and adaptive coping mechanisms.

Independent t-test: Retirement Counseling

In preparation for retirement of its employees, many agencies provide employee assistance programs, pre-retirement and post-retirement counseling options. The majority of the respondents (59%) in the current study opted not to participate in these counseling options either prior to or after their law enforcement retirement. The current study sought to evaluate whether a statistically significant difference exists in the symptoms of depression, anxiety and stress in retired law enforcement officers who participated in these counseling options, as opposed to those who did not. An independent samples t-test analyzed the data for symptoms of depression, anxiety and stress, with the independent variable of counseling participation. The analysis demonstrates no level of significance for any of the three dependent variables. Therefore, the data does not support the hypothesis that there is a statistically significant difference in these

symptoms, based upon participation in these programs. These findings are supported by researched conducted by Kalt and Kohn (1975) regarding characteristics of pre-retirement counseling programs. In a study of 222 retirees and 46 companies, the researchers found that only nine companies had counseling programs and that many of the companies with such programs appeared to be less than fully committed to making their programs work. Most of the retirees in the study felt that company sponsored pre-retirement counseling programs are necessary, but that a substantial amount of the programs ignored many topics that most of the respondents felt were of real interest and importance to retiring employees (Kalt and Kohn, 1975).

Recommendations for Further Study

The following recommendations for further research can be made based on the findings from this research study: (a) This study was limited to a sample size of only 226 respondents. Invitation to participate in the survey was posted in a select few online forums for law enforcement retirees. Perhaps increasing the sample to include retired law enforcement officers from other organizations could provide for a greater collection of information. (b) This study also lacked diversity within the sample as the majority of the respondents were white males. If the sample size were dramatically increased, there may be greater diversity with which to analyze other independent variables such as gender, race, and marital status, etc. (c) Only the variable of "type of retirement" was studied as it related to symptoms of depression, anxiety and stress in retired law enforcement officers. Further investigation into other independent variables such as law enforcement rank and years of police service might provide additional insight into the level of significance in psychological outcomes of law enforcement retirement. (d) This study was limited also to the selection of testing instruments available in the public domain. While the

DASS-21, Brief Cope and MSPSS provided a good amount of information, adding in components of a mixed-method study may allow the researcher to collect more information regarding law enforcement retiree perceptions of depression, anxiety and stress. In addition, investigation of the research questions utilizing alternate testing instruments may yield consistency and support for the current research findings.

Implications for Practice

The results of this research study have implications for law enforcement administrators at the local, state and federal levels. The perceptions of police officers who have undergone the retirement process could assist in providing a quantitative view regarding the shift to civilian life. Furthermore, these results may change the manner in which retirement counseling changes are implemented within law enforcement agencies. Police administrators can help officers prepare for an active and fulfilling transition to civilian life by establishing retirement as the end goal. A great deal of emphasis is placed on safety throughout a police officer's career with administrators stressing the goal of going home safely to one's family at the end of every shift. However, little thought is put to the safety and well-being of the officer and his or her family upon the conclusion of their careers.

Retirement planning should begin early in an officer's career, not just toward the end of it. An in-the-line-of-duty injury or disability may alter the officer's retirement plans as they seek assistance from the department in pursuing a medical retirement. Rehm (1996) asserts that the three central factors of career challenges, finances, and the psychological effects of withdrawal all play a crucial role in determining an officer's relationship with the department as the prospect of retirement approaches. If the law enforcement agency understands these factors, administrators will be more informed to help officers look ahead toward their retirement. The

goal behind such understanding is that administrators may be able to assist their officers in realizing that with a little planning in these areas, retirement from a law enforcement agency is not necessarily the end of a familiar way of life, but instead the beginning a new life with new challenges (Rehm, 1996).

Conclusions

Retirement from one's chosen career can either be a long anticipated event, or a sudden, unexpected departure that lacks planning and preparation. For law enforcement officers, this process may become even more of a challenge. Police officers don't merely sign up for a "job." They take an oath to serve and protect. Their badges are more than emblems upon the uniform. They represent the officer's dedication to their chosen profession, the community and their brotherhood of fellow officers. For one who spends much of their career in a position of authority, the experience of an early, unexpected retirement results in a loss of control.

This study examined the effects of forced early retirement for law enforcement officers. The data suggests that these law enforcement retirees experience significantly more depression, stress and anxiety than their counterparts who plan their retirements after years of completed service. The data further indicates a significant influence of support systems and coping skills on symptoms of depression, stress and anxiety in retired law enforcement officers. Interestingly, however, participation in employee assistance programs, pre-retirement and post-retirement counseling was not found to be significant in any of the three dependent variables. Perhaps different results would be found in a larger sample with greater diversity within the participant groups, therefore it is suggested that additional research is needed in this area.

The insights gained through this study will provide police administrators with the quantitative data regarding law enforcement retirees' perceptions of the retirement process and

subsequent effects of depression, anxiety and stress. The findings from this study could prove beneficial in developing career and retirement plans for law enforcement officers as they begin their police careers, rather than addressing these issues at the time of the officers' retirement.

Appendix A

DASS

Name: *Date:*

Please read each statement and circle a number 0, 1, 2 or 3 that indicates how much the statement applied to you *over the past week*. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

0 Did not apply to me at all
1 Applied to me to some degree, or some of the time
2 Applied to me to a considerable degree, or a good part of time
3 Applied to me very much, or most of the time

1	I found myself getting upset by quite trivial things	0	1	2	3
2	I was aware of dryness of my mouth	0	1	2	3
3	I couldn't seem to experience any positive feeling at all	0	1	2	3
4	I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1	2	3
5	I just couldn't seem to get going	0	1	2	3
6	I tended to over-react to situations	0	1	2	3
7	I had a feeling of shakiness (eg, legs going to give way)	0	1	2	3
8	I found it difficult to relax	0	1	2	3
9	I found myself in situations that made me so anxious I was most relieved when they ended	0	1	2	3
10	I felt that I had nothing to look forward to	0	1	2	3
11	I found myself getting upset rather easily	0	1	2	3
12	I felt that I was using a lot of nervous energy	0	1	2	3
13	I felt sad and depressed	0	1	2	3
14	I found myself getting impatient when I was delayed in any way (eg, elevators, traffic lights, being kept waiting)	0	1	2	3
15	I had a feeling of faintness	0	1	2	3
16	I felt that I had lost interest in just about everything	0	1	2	3
17	I felt I wasn't worth much as a person	0	1	2	3
18	I felt that I was rather touchy	0	1	2	3

19	I perspired noticeably (eg, hands sweaty) in the absence of high temperatures or physical exertion	0	1	2	3
20	I felt scared without any good reason	0	1	2	3
21	I felt that life wasn't worthwhile	0	1	2	3

Reminder of rating scale:

0 Did not apply to me at all
1 Applied to me to some degree, or some of the time
2 Applied to me to a considerable degree, or a good part of time
3 Applied to me very much, or most of the time

22	I found it hard to wind down	0	1	2	3
23	I had difficulty in swallowing	0	1	2	3
24	I couldn't seem to get any enjoyment out of the things I did	0	1	2	3
25	I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)	0	1	2	3
26	I felt down-hearted and blue	0	1	2	3
27	I found that I was very irritable	0	1	2	3
28	I felt I was close to panic	0	1	2	3
29	I found it hard to calm down after something upset me	0	1	2	3
30	I feared that I would be "thrown" by some trivial but unfamiliar task	0	1	2	3
31	I was unable to become enthusiastic about anything	0	1	2	3
32	I found it difficult to tolerate interruptions to what I was doing	0	1	2	3
33	I was in a state of nervous tension	0	1	2	3
34	I felt I was pretty worthless	0	1	2	3
35	I was intolerant of anything that kept me from getting on with what I was doing	0	1	2	3
36	I felt terrified	0	1	2	3
37	I could see nothing in the future to be hopeful about	0	1	2	3
38	I felt that life was meaningless	0	1	2	3
39	I found myself getting agitated	0	1	2	3

40	I was worried about situations in which I might panic and make a fool of myself	0	1	2	3
41	I experienced trembling (eg, in the hands)	0	1	2	3
42	I found it difficult to work up the initiative to do things	0	1	2	3

DASS Scoring Template

S
A
D
A
D
S
A
S
A
D
S
S
D
S
A
D
D

	S A A D

Apply template to both sides of sheet and sum scores for each scale.
For short (21-item) version, multiply sum by 2.

Appendix B

Multidimensional Scale of Perceived Social Support (Zimet, Dahlem, Zime & Farley, 1988)

Instructions: We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

Circle the "1" if you Very Strongly Disagree
Circle the "2" if you Strongly Disagree
Circle the "3" if you Mildly Disagree
Circle the "4" if you are Neutral
Circle the "5" if you Mildly Agree
Circle the "6" if you Strongly Agree
Circle the "7" if you Very Strongly Agree

1.	There is a special person around when I am in need.	1	2	3	4	5	6	7	SO
2.	There is a special person with whom I can share my joys and sorrows.	1	2	3	4	5	6	7	SO
3.	My family really tries to help me.	1	2	3	4	5	6	7	Fam
4.	I get the emotional help and support I need from my family.	1	2	3	4	5	6	7	Fam
5.	I have a special person who is a real source of comfort to me.	1	2	3	4	5	6	7	SO
6.	My friends really try to help me.	1	2	3	4	5	6	7	Fri
7.	I can count on my friends when things go wrong.	1	2	3	4	5	6	7	Fri
8.	I can talk about my problems with my family.	1	2	3	4	5	6	7	Fam
9.	I have friends with whom I can share my joys and sorrows.	1	2	3	4	5	6	7	Fri
10.	There is a special person in my life who cares about my feelings.	1	2	3	4	5	6	7	SO
11.	My family is willing to help me make decisions.	1	2	3	4	5	6	7	Fam
12.	I can talk about my problems with my friends.	1	2	3	4	5	6	7	Fri

The items tended to divide into factor groups relating to the source of the social support, namely family (Fam), friends (Fri) or significant other (SO).

Appendix C

Brief COPE

These items deal with ways you've been coping with the stress in your life since you found out you were going to have to have this operation. There are many ways to try to deal with problems. These items ask what you've been doing to cope with this one. Obviously, different people deal with things in different ways, but I'm interested in how you've tried to deal with it. Each item says something about a particular way of coping. I want to know to what extent you've been doing what the item says. How much or how frequently. Don't answer on the basis of whether it seems to be working or not—just whether or not you're doing it. Use these response choices. Try to rate each item separately in your mind from the others. Make your answers as true FOR YOU as you can.

1 = I haven't been doing this at all
2 = I've been doing this a little bit
3 = I've been doing this a medium amount
4 = I've been doing this a lot

1. I've been turning to work or other activities to take my mind off things.
2. I've been concentrating my efforts on doing something about the situation I'm in.
3. I've been saying to myself "this isn't real.".
4. I've been using alcohol or other drugs to make myself feel better.
5. I've been getting emotional support from others.
6. I've been giving up trying to deal with it.
7. I've been taking action to try to make the situation better.
8. I've been refusing to believe that it has happened.
9. I've been saying things to let my unpleasant feelings escape.
10. I've been getting help and advice from other people.
11. I've been using alcohol or other drugs to help me get through it.
12. I've been trying to see it in a different light, to make it seem more positive.
13. I've been criticizing myself.
14. I've been trying to come up with a strategy about what to do.
15. I've been getting comfort and understanding from someone.
16. I've been giving up the attempt to cope.
17. I've been looking for something good in what is happening.
18. I've been making jokes about it.
19. I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.
20. I've been accepting the reality of the fact that it has happened.
21. I've been expressing my negative feelings.
22. I've been trying to find comfort in my religion or spiritual beliefs.
23. I've been trying to get advice or help from other people about what to do.
24. I've been learning to live with it.
25. I've been thinking hard about what steps to take.
26. I've been blaming myself for things that happened.
27. I've been praying or meditating.
28. I've been making fun of the situation.

Scales are computed as follows (with no reversals of coding):

Self-distraction, items 1 and 19
Active coping, items 2 and 7
Denial, items 3 and 8
Substance use, items 4 and 11
Use of emotional support, items 5 and 15
Use of instrumental support, items 10 and 23
Behavioral disengagement, items 6 and 16
Venting, items 9 and 21
Positive reframing, items 12 and 17
Planning, items 14 and 25
Humor, items 18 and 28
Acceptance, items 20 and 24
Religion, items 22 and 27
Self-blame, items 13 and 26

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