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The Effects of Frequent Exposure to Violence and Trauma on Police Officers

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Walden University
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Abstract

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by

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MA, Argosy University, 2006

MA, Norfolk State University, 2001

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

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Abstract

Police officers who maintain negative or traumatic information in long-term memory are vulnerable to mental illness, unstable emotional and behavioral responses, interpersonal problems, and impaired social relationships. The cognitive theory suggests that police officers externalize various negative or maladaptive behaviors as a result of frequent exposure to traumatic events. Researchers have found that police officers tend to either not seek mental health treatment, try to fix their own mental health problem, or if in treatment will not be forthcoming with internalized thoughts of psychological distress. The intention of this research was to examine the relationship between police officers' frequent exposure to violence and traumatic events/images and its effect on the long-term mental health issues and significant decreases in cognitive empathy or human compassion within police officers. This quantitative study used a simple linear regression, descriptive analysis, correlational matrix to analyze the data gathered from assessment packets containing a Trauma Symptom Inventory-2A, Paulhus Deception Scale, JHU Project Shields Questionnaire, and a Compassion Scale. Assessment packets were distributed during roll calls to active male and female Norfolk Police Officers assigned to the Patrol Divisions, Detective Division, and Vice/Narcotic Division. A priori power analysis revealed 65 participants were needed to have a valid sample. There were 66 completed assessment packets collected from the researcher's secure drop boxes. The findings were statistically significant suggesting a need for continued research. To effect positive social change, mental health workers and police organizations will use this data to assist in policy construction and mental health training.

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Dedication

Thank God for giving me the strength, knowledge, and finances to complete this project. I will forever stand on your holy word; and, I pray you continue to watch over me as I walk in faith.

To my wife, Twanna, if I knew I would marry a woman as special as you, I would have searched for you harder and found you sooner. My inspiration for success was supported by your love for family and trusting my decisions. When we were dating you told me “we are a movement by ourselves, but we are a force when we are together”. I am so blessed to have a wife like you. I love you!

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To my mother, Lorene, I love you and because of you “I made it”.

To my love ones who are not here to share this moment with me, Rest in Peace: Louise Warren, Velma Parker, Yvonne Evans, Dorine Whitehurst, Earnestine Warren, Isabella Warren, Martin Jennings, and Theresa Parker-Bellamy.

Inspirational statement: “Falling apart and tearing at the seams; Tribulation lends a hand and squeezes all your hopes, your dreams; You say you retreat, you say you just can't win; Before you let your circumstance tell you how the story ends; He promised me he'd always be there; Just rest and believe; All things are working for me even things I can't see.” “Fred Hammond”.

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CHAPTER 1: Introduction to the Study

An individual's decision to become a police officer is often motivated by an empathetic concern, diversity of job task, and desire to protect and serve people in need (Roufa, 2014). On the other hand Cunha (2014) suggest some individual's accept the job because of the need for a job that does not require a college education and has "good" pay and benefits. Nevertheless, police officers accept the occupation with an understanding that a strong possibility of being killed exists. Since February 1998, the City of Norfolk had 6 police officer killed in the line of duty, suggesting an estimated one officer killed every 32 months. According to the Bureau of Justice Statistics (2013), approximately 1,300 police officers in the United States have been killed since 2002. As of August 14, 2014 in the United States, 65 police officers have been killed (62 men and 3 women) in which May 2014 yielded the most with 18 police officers killed (Officer down Memorial Page, 2014). According to the National Law Enforcement Officers Memorial (2013), one police officer is killed in the line of duty somewhere in the United States every 57 hours.

The long-term psychological and physiological effects of the frequent exposure to trauma and violence are not understood when accepting the job as a police officer. Research indicates that exposure to traumatic events is frequently linked to poor psychological outcomes (Boals, Riggs, & Kraha, 2013). As a result, police officers often begin their careers unprepared for dealing with the possible consequences to their mental and physical well-being as a result of frequent contact with victims of trauma.

According to the National Law Enforcement Officers Memorial (2013), there are over 900,000 sworn law enforcement officers in the United States and approximately

108,000 or 12% are female. Traditionally, police careers were primarily men; however, in the past 35 years, women have proven themselves able to meet the demanding and physical challenges of the career (Santos, Leather, Dunn, & Zarola, 2009; Seklecki & Paynich, 2007). As a result, female and male gender research and statistical data collected and discussed throughout this research paper will be integrated.

Police officers often display a lack of human compassion. (T. Whitehurst, personal communication, July 12, 2011). For example, an incident occurred during a police officer's shift which questioned his level of human compassion. During this researcher's 24th year as a police officer, he and his partner went to investigate the "possible" assault of a 46 year old male. Upon arriving, the police officers determined that the male was not assaulted; instead, it was determined by the paramedics that he was having difficulty breathing, which resulted in his collapse in the street. The male wanted to go to the hospital; however, he was not cooperating with the paramedics. Due to the male's erratic behavior, the police officer was requested to ride in the ambulance. On the way to the hospital, the male stopped breathing in the middle of a conversation about football. The police officer assisted with CPR until the ambulance arrived at the hospital; however, the male died within 10 minutes. The cause of death was a heart attack. Approximately 20 minutes later, the police officer and his partner were seated and eating dinner without conversation, concern, or thought for the loss of the person whose life they tried to save. The police officer told his wife about the incident, and she expressed concern about the lack of human compassion that the police officers expressed towards the grieving family and the eagerness to eat after failing to save another human's life. The police officer's wife asked, "How can the two of you eat after that man died?" and the police officer

replied, “After years of seeing death and violence, you become unemotional and hardened towards grief.”

Police officers are responsible for the preservation of social order, saving lives, and the enforcement of the laws in society (Alemika, 2009). During the tenure of a police officer’s career, he or she will be exposed to more violent or traumatic events or images than most citizens will encounter in a lifetime (Anderson & Lo, 2011). Traumatic events may consist of the death of a fellow officer, stabbing/shooting incidents, investigating traffic accidents involving injury, viewing murder or suicide victims, violent sexual or physical assault, abuse or death of children, or having to inform family members about the death of a loved one. Psychological disturbances as a result of exposure to violent or traumatic events/images have been a topic of discussion in the mental health industry for over 100 years (Aker, Onen, & Karakiliç, 2007). This study will engage the impact (i.e. internalization and externalization) of traumatic stress to the psychopathology and cognitive empathy/human compassion change in police officers.

The physical and emotional effect of long-lasting secondhand exposure to traumatic events on helping professionals is a continuing focus of research (Harr & Moore, 2011). Nationally, statistics suggest that approximately 126 - 150 police officers commit suicide each year (Clark & O’Hara, 2013). According to Clark and O’Hara, most police departments reported police officers’ suicide were related to personal difficulties or family problems.

The harmful consequence of continous exposure to violence decreases empathy but increases aggressive behaviors and aggressive thoughts in police officers (Bartholow, Sestir, & Davis, 2005). This is probably why the use of excessive force (i.e. physical use

of force, firearm-related, taser-related, use of police dogs, and chemical weapons) complaints are leading the percentage for police misconduct complaints. The 2010 National Police Misconduct Statistics and Reporting Project indicated that approximately 6,613 law enforcement officers were involved in allegations of misconduct in which 1,575 or 23.8% of the police officers complaints were use of excessive force, 4.7% domestic violence, assaults at 4.5%, animal cruelty at 1.1%, and murder at 0.5% (Packman, 2011).

These statistics revealed that police brutality ranks among the highest complaints for police officers. Furthermore, a leading emotional cause of violent behavior is an individual's inability to effectively process anger and aggression (Chereji, Pintea, & David, 2012). It is reasonable to conclude that all police officers will interact with at least one police officer involved in alleged police brutality complaints. The police "code of silence" and not wanting to be seen as weak conceals police officers' mental health problems. Police officers believe if mental health issues are exposed, he or she may be subjected to administrative leave, desk duty, service weapon taken away, passed up for promotions, and be the gossip/discussion topic among coworkers (Caruso, 2013). Research by Hanafi, Bahora, Demir, and Compton (2008) suggests that greater recognition and uderstanding of mental illness will reduce sterotyping and shame towards police officers who seek mental health treatment. This reseach hopes to change the thought process of police officers and other readers by exposing the danger of internalizing psychological distressing symptoms.

The findings from the research are important because it might help police officers perform their job better by minimizing stress. Therefore, the research will implicate a

need for periodical mental health assessments for police officers (Gillet, Huart, Colombat, & Fouquereau, 2013). This is a significant social change because personal experience suggests police administrators of various police departments may advocate mental health services. On the other hand, the street-level supervisors of police departments are probably the least trained in facilitating or influencing a police officer to seek mental health services (Berg, Hem, Lau, & Ekeberg, 2006). As a result, new leadership is influenced by the organizational culture of not promoting mental health treatment among police officers (Murphy, 2008).

Furthermore, it was discovered that for police officers, there is a barrier to seeking mental health treatment because of the lack of trust toward police administrators and job security. This barrier, which police officers refer to as the "Code of Silence," is endorsed by police officers and their family members (i.e., not to exclude close friends). It was discovered that police officers do not report other police officers' personal problems because of a fear of revenge or being "black-balled" by other police officers (Edwards, 2006). As a result, mental health workers and police department administrators are concerned for police officers who continue to work and not report overwhelming psychological distressing symptoms.

Research by Hanafi, Bahora, Demir, and Compton (2008) suggests that greater recognition and understanding of mental illness will reduce stereotyping and shame towards police officers who seek mental health treatment. It is vital that shame is not overlooked because research suggests that it can cause distress and withdrawals, but what is most puzzling is that shame increases aggression, irritation, and other externalized maladaptive behaviors in police officers (cited in Hanson, 2003). This research hopes to

change the thought process of police officers and other readers by exposing the danger of internalizing psychological distressing symptoms.

Background

There are several researchers who supported the scope of this research project. Huddleston, Stephens, and Paton's (2007) research provided support towards understanding the effects of exposure to trauma. Secondly, Madden, Duchon, Madden, and Ashmos-Plowman (2012) conducted research which supports the effects of violence on human compassion. Next, the research of Aker, Onen, and Karakiliç (2007); McMahon, Felix, Halpert, and Petropoulos (2009); and Violanti et al., (2011) supports the dissertation's premise of the need for continued research in the area of the effect of long-term exposure to violence. Anderson and Lo (2011) used data from the Baltimore Police Stress and Domestic Violence study to examine how exposure to stressful events on the job affects police officers. Finally, Neff's (2003) research provided information about the development and validation of the scale to measure compassion towards others. It is anticipated that this study and the research of others will provide police officers with knowledge on the long term effect of frequent exposure to traumatic and violent events.

A gap for this research is the lack of availability of empirical information or case studies on how frequent exposure to traumatic or violent events affects police officers' cognitive empathy or human compassion. This researcher concluded that there is a "code of silence," and if one is not within the police culture (i.e., to include police officers' family members), information that can damage or end a police officer's (i.e. man or woman) career is considered protected information.

For example, it was discovered that officers drink alcohol together for building "loyal" relationships and reinforcing their police culture values (Davey, Obst, & Sheehan, 2001). The "police culture" and "code of silence" makes it difficult for police officers to admit that they have an alcohol or substance abuse problem. Researchers have indicated that statistical data is hard to find because police officers do their "suffering" in silence or associate with other police officers who enable the behavior (Violanti et al., 2011). Therefore, it is somewhat difficult for someone not within the police circle/culture to gain access to protected and accurate information.

This researcher has extensive active participation experience in law enforcement, military (i.e. U. S. Marine Corps and Navy), and now clinical psychology. It is reasonable to conclude that my experience in the police culture will be most advantageous when collecting research data and engaging police officers. Furthermore, from this researcher's perspective of over 30 years of combined experience, this research is needed because it will go further than other researchers by adding well known assessment tools to the research in an effort to create more robust findings on the effects of violence and trauma on police officers.

Statement of the Problem

Police work is ranked among the top 20 occupations (out of 130) related to increased health problems (Sijaric-Voloder & Capin, 2008). During a police officer's career, he or she will be exposed to trauma/violence in which the distress will diminish over time or evolve into a wide range of psychological difficulties (Chongruksa, Parinyapol, Sawatsri, & Pansomboon, 2012). In the City of Norfolk police officers respond to approximately 100 – 120 violent or trauma related calls per day (P. Carter,

personal communication, June 9, 2014). At the time of this research, Norfolk (total of 786 police officers) had approximately 450 – 500 uniformed police officers and approximately 286 – 331 plain clothes police officers assigned to other investigative and administrative units (P. Dixon, personal communication, August 16, 2014). It is reasonable to conclude that a police officer has a 1.37% likelihood of responding as a primary officer, backup officer, or "simply being curious" to a violent or traumatic scene per shift.

Every officer will face some exposure to violence and traumatic events; however, the frequency of exposure will vary. For example during this researchers 25 year police career, the City of Norfolk had an excess of 25,000 reported violent crimes (murder/manslaughter, rape, aggravated assault, and robbery). This is significant because while performing police duties in the patrol division and investigative division, it is reasonable to conclude an officer's average exposure to violent or traumatic events estimated range is from 3 to 7 per week.

Research by Berg, Hem, Lau, and Ekeberg (2006) suggested that police officers are trained problem solvers who have to control their emotions when exposed to traumatic or violent events. Therefore, when police officers have personal problems, it requires a shift of the thought process from problem solver to problem haver. Their research reflected that police officers will not seek mental health treatment but instead will try to fix their own problem. Wester and Lyubelsky (2005) suggested that police officers are less likely than most occupations to be forthcoming with internalized thoughts of distressing psychological issues during therapy sessions. The intention of this research is to describe and illustrate how the frequent exposure to traumatic and violent events and images

(FETVEI) during a police officer's career can lead to long term mental health issues with particular reference to how police officers have significant decreases in cognitive empathy/human compassion.

Purpose of the Study

The purpose of this research is to study how frequent exposure to traumatic stressors contributes to mental health difficulties among police officers. One specific concept that was chosen to be measured is how the internalization and externalization (display) routine of frequent exposure to violence/trauma can change cognitive empathy/human compassion in police officers.

The nature of the study will be the quantitative method. In addition, a linear regression analysis will be used to acquire information from the research questions. The quantitative method is best because it will be assessing the effect of long-term exposure to traumatic, violent events and images on police officers' cognitive empathy/human compassion. In other words, a quantitative approach to this research is best because it will aid in establishing whether an effect exists and thereby decide whether the statements of a specific and common original hypothesis warrant additional research (Plonsky & Gass, 2011).

The intent of this study is to examine the relationship between police officers' frequent exposure to traumatic events and the untreated psychopathology and loss of cognitive empathy/human compassion in police officers (males and females). According to Baron-Cohen and Wheelwright (2004) and Baron-Cohen (2011), having empathy is important because it allows us to understand the objectives of others and experience an emotion triggered by another person's emotion. It was also reported by Pangaro (2010)

that police officers must seek human compassion to help them not just live through difficult situations but to endure them over the long-term. The independent variable in this research is the police officer who is frequently exposed to traumatic or violent events/images. And the dependent variables in this research are police officers' cognitive empathy/human compassion, their internalization of distressing psychological symptoms, and their display of distressing psychological symptoms.

Research Questions and Hypotheses

Research Hypothesis 1: Police officers that score high on the Defense Avoidance scale of the Trauma Symptoms Inventory 2-A (TSI 2-A) will also score high on the Tension Reduction Behavior and Intrusive Experiences scales of the TSI 2-A.

H_1: Police officers with this pairing of high scales scores will have an onset of various distressing psychological symptoms and are likely to display maladaptive behaviors such as hyper-aggression and violence, substance and alcohol abuse, suicide, and domestic violence.

H_0: Police officers with a pairing of low scales scores will not have an onset of various distressing psychological symptoms and are not likely to display maladaptive behaviors such as hyper-aggression and violence, substance and alcohol abuse, suicide, and domestic violence.

Research Hypothesis 2: Two factors (Posttraumatic and Externalization) from the TSI-2A will reveal the strength of trauma and stress within the police culture. If so, it is anticipated that there will be statistical significant elevated scores when compared to test norms.

H_1: This will be indicative of the extent of trauma and dysfunctional behaviors within this population sample. Those who score high on these scales will exhibit significant levels of trauma and stress and dysfunctional and self-destructive behaviors.

H_0: This will not be indicative of the extent of trauma and dysfunctional behaviors within this population sample. Those who score low on these will not exhibit significant levels of trauma and stress and dysfunctional and self-destructive behaviors.

Research Hypothesis 3: The JHU Shields Questionnaire will reveal police officers work stress will affect their work attitude, the general public, their coping strategies, physical health, behavior, and family.

H_1: These results will support the theory that frequent exposure to stress, trauma, and violence will affect police officers' work attitude, the general public, their coping strategies, physical health, behavior, and family.

H_0: These results will not support the theory that frequent exposure to stress, trauma, and violence affect police officers' work attitude, the general public, their coping strategies, physical health, behavior, and family.

Research Hypothesis 4: Police officers that self-report exposure to stress and traumas are likely to suffer from compassion fatigue, as measured by a high score on the Compassion Scale.

H_1: When looking at the Compassion Scale findings, it will reflect police are likely to suffer from compassion fatigue.

H_0: When looking at the Compassion Scale findings, it will reflect police are not likely to suffer from compassion fatigue.

Research Hypothesis 5: The Paulhus Deception Scale will provide support for the idea that police officers will score within normal range on the self-deceptive enhancement and impression management scales.

H_1: Police officers used in the sampling population for the research will score within the normal range on the self-deceptive enhancement and impression management scales and will not skew the research data.

H_0: Police officers used in the sampling population for the research will not score within the normal range on the self-deceptive enhancement and impression management scales and will skew the research data.

Theoretical Foundation of the Study

Cognitive Theory

Cognitive theories emphasize that empathy involves understanding others' feelings (Kohler, 1929 cited in Baron-Cohen and Wheelwright, 2004). However, a more important question is, "how can a person understand or think about the feelings of others when his or her personal emotional status is stressed?" Cognitive theories of psychology focus on the internal states, such as motivation, problem solving, decision-making, and thinking. To be more specific, cognitive psychology engages how the brain processes information (Groome, 1999) to manage the various situations of a person's reality (Prochaska & Norcross, 1999).

Research by Groome (1999) also revealed that the brain processes information obtained from the memory of an individual's knowledge and past experiences. This research project will add credibility to Beck's (1976) suggestion that frequent storing of traumatic memories and thoughts will affect a person's emotional and behavioral

response to various situations. Police officers typically deny or minimize the emotional impact of traumatic or violent events, which may cause them to develop overcontrolled hostility or aggressive behaviors (Murphy, Taft, & Eckhardt, 2007).

Research will support the cognitive theory in its suggestion that individuals who maintain negative or traumatic information or structures in long-term memory are vulnerable to mental illness, interpersonal problems, and impaired social relationships (Brewin, 1996; Hedtke et al., 2008; Nietlisbach & Maercker, 2009). Additionally, the frequent exposure to violence and traumatic events increases the risk of police officers developing psychological and physiological symptoms (Lauvrud, Nonstad, Palmstierna, 2009; Chopko, 2010). These officers may experience symptoms related to post-traumatic stress disorder (PTSD), depression, anxiety, substance abuse, suicide, and hypertension or other medical issues, in addition to employment and marital problems (i.e. relational issues) and citizens' complaints about harassment and use of excessive force.

It is reasonable to conclude that this research will facilitate and formulate an interpretation of how a police officer's cognitive empathy is affected by the frequent exposure to violence. This may result in the police officers externalizing behaviors, such as physical aggression (i.e. police brutality or family violence), substance abuse, and/or suicide (Van der Velden, Kleber, Grievink, & Yzermans, 2010).

Nature of the Study

The frequent exposure to trauma and/or violent events is detrimental to the mental and physical health of police officers (Huddleston, Stephens, & Paton, 2007). Since the 9/11 terrorist attacks, there has been an increase in research involving secondary trauma (Tyson, 2007). The nature of this study will report that when police officers are

frequently exposed to trauma and violence, it more than likely will result in various negative psychological and physiological outcomes such as Posttraumatic Stress Disorder (PTSD), depression, substance abuse, suicide, hypertension, and employment and marital problems.

The dependent variables are police officers' cognitive empathy/human compassion, their internalization of distressing psychological symptoms, and their display of distressing psychological symptoms. And the independent variable is the police officers who are frequently exposed to traumatic or violent events/images. The research will be from the data yielded from assessments by active male and female police officers in the City of Norfolk. Participation is voluntary, and all assessments will be collected within four days of administration to the participants. The data will be analyzed through the use of a simple linear regression.

Operational Definitions

Code of silence: A reference suggesting police officers place loyalty over honesty. You are not expected to report any "wrongdoing" that you notice on the part of other police officers (Kaariainen et al., 2008). It is often referred to as the impenetrable fortress in which police officers protect their own, including those who engage in misconduct beneath a screen of secrecy (Shockey-Eckles, 2011).

Cognitive empathy: Knowing how the other person feels and what they might be thinking (Goleman, 2007). Davis (1983) described cognitive empathy in four different components. First, perspective taking is a cognitive ability that is related to taking other people's point of view. He based the second and third components on emotional activation. Empathic concern is the tendency to feel sympathy or concern for someone.

Personal distress is the tendency to be distressed by negative events that happen to others. The final component, fantasy, reflects the ability to become emotionally involved in fictions or fantasies and requires the ability to both change perspective and respond emotionally, making it both cognitive and emotional. This research will describe how the frequent exposure to trauma causes police officers to lose cognitive empathy.

Compassion fatigue: This term has been defined differently by several researchers. It was defined as "the cost of caring" by Perin (2012). Coetzee and Klopper (2010) and Stamm (2010) suggested that compassion fatigue was nothing more than work-related secondary exposure to people who have experienced extremely or traumatically stressful events. These exposures can cause individuals to experience exhaustion, frustration, anger, sleep difficulties, intrusive image, depression, and other mental health problems (Severn, Searchfield, & Huggard, 2012). Compassion fatigue is described as a stress response that develops unexpectedly and without warning (Slocum-Gori et al., 2013).

Coping: The way a person cognitively and behaviorally responds following exposure to an event (Tiet et al., 2006).

Frequent Exposure: This term is defined as the contact or interaction with violent or traumatic events that exceeds the duration for a time period that a person would consider as average. In other words, during police officers' entire career, they will perform police duties with unpredictable levels of contact to violent and traumatic events. The prolonged exposure to violent and traumatic events normally ends when the police officer retires, voluntarily resign, involuntarily termination, or dies via line of duty, accidental, or suicide.

Human Compassion: An affective state and a broad class of emotional and behavioral responses that motivate the desire to help a person when one witnesses suffering *(*Tsui, 2013).

Job Stress: The harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the worker (National Institute for Occupational Safety and Health, 1999).

Negative mental, physical, and behavioral outcomes: Police stress has been associated with various issues such as cardiovascular disease, depression, migraines, posttraumatic stress, antisocial behavior, aggression, foot problems, disruptive behavior, alcohol abuse, chronic lower back pains, suicide, and insomnia (Gershon, Barocas, Canton, Li, & Vlahov, 2009).

Police brutality: Police brutality is a civil rights violation that occurs when a police officer acts with excessive force by using an amount of force that is more than necessary with regards to a civilian (US Legal, 2013).

Police culture: A police-made objective that increases the probability of survival. According to Woody (2005), this objective shields law enforcement insiders (i.e. police officers and immediate family members) from persons perceived as being outsiders (i.e. those who have not pledged or demonstrate an allegiance to the law enforcement community). Fielding's book (as cited in Woody, 2005) indicated that a police culture can be "characterized as extremely powerful," potentially reaching the point of being a "monolithic authority" in the life of police officers. However, police cultures may vary among police departments.

Secondary Trauma (i.e. vicarious traumatization)*:* The indirect exposure to traumatic events that usually occurs through work, in which the person suffers from the consequences of those events (Beck, 2011).

Social Betrayal: It is reasonable to suggest that betrayal is one of the worst offenses committed against a person. Social betrayal can be defined as the people or institutions on which a person depends for continued satisfaction significantly violate that person's trust or well-being (Freyd, 2012). Not to confuse rejection and betrayal. Rejection occurs when trying to establish a relationship, whereas, betrayal occurs in an established relationship. For example applying for employment as a police and not getting accepted is rejection; on the other hand, a betrayal example is being a police officer for at least one year (i.e. end of probation status) and you have violated a department policy that warrants a suspension, instead of a suspension, a termination of employment is recommended.

Traumatic event/experience: Stressful events, shocking physical or psychotic injury that may be the original cause of some emotional or mental disorder (Corsini, 2002). Basically, a traumatic event or experience can involve any scenario that causes an individual to feel overcome and it doesn't have to involve physical harm.

Violence: It is aggression in its most extreme and unacceptable form and most researchers conclude that it has no therapeutic justification, since there are more constructive and humane ways of expressing anger (Corsini, 2002).

Interchangeable terms used throughout the dissertation:

1. cognitive empathy and human compassion
2. trauma and violence

3. FETVEI: frequent exposure to traumatic and/or violent events or images

Assumptions, Scope and Delimitations, and Limitations

Assumptions

Several assumptions were made for this research because police officers and the police culture, by nature, are somewhat resistant to outsiders. The intention of this research was to formulate an interpretation of how a police officer's internalization and externalization of psychological distress affects his or her cognitive empathy or human compassion. Assumptions of this study include the following:

1. The code of silence would be strongly supported by the majority of police officers.
2. Police officers would willingly participate in psychological research that would be beneficial for active and retired police officers.
3. Voluntary participation can lead to a reasonable assumption that aggressive individuals or individuals with mental health issues would be less inclined to be helpful or cooperate in the study.
4. Due to skepticism of anonymous assessments with identity questions, police officers will be disinclined to answer assessment questions that ask about gender, race, and rank.
5. The different levels of leadership within the police department would support the research in an effort to identify mental health problems among police officers.
6. Police officers would provide honest and unbiased information on the assessments with willingness to admit minor faults or weaknesses.

Scope and Delimitation of the Research

The scope of this research was limited to current full-time employed police officers from the Norfolk Police Department. Although the sample population is from one police department, the results may apply to future research in the criminal justice and psychological fields. Findings may not be generalizable to police officers outside of the Norfolk Police Department.

Limitations

Limitations may include results from the sample not generalizable to the population as a whole. There is no previous data of traumatic exposure prior to becoming a police officer (i.e. military combat, civilian employment in combat zone or hostile environments, and childhood traumas). The selection of the Norfolk Police Department may not be reflective of the other six surrounding police departments in the Tidewater Region. Another limitation may be in the design of the study, which is not favorable to making conclusions of causation. Dependence on self-reports outcomes may be a concern, as the participating police officers could have a propensity to base their answers on what they perceive the researcher will be looking to discover.

Other limitations may include:

1. There is the potential for resistance to respond openly to questions which may indicate identity (i.e. gender, race, & rank).
2. Police officers may believe that the traumatic events they have endured have had little to no effect on them, when independent data might show differently.
3. The exposures to traumatic and violent events affect officers differently. Factors such as closeness of the officers within the department, department

support, community support, and media impact of police related incidents can affect how the police officer will respond to assessment questions.

4. The data gathered for the study will come from an accessible sample of police officers who have been exposed to traumatic events as a police officer or have knowledge of individual(s) who has/have been exposed to a traumatic event.
5. The effect that the code of silence would present when gathering data to complete the research.

Significance of the Study

The research will investigate how violence and traumatic stress contribute to psychopathology and compassion fatigue / cognitive empathy change in police officers. The TSI-2A will be used to assess psychopathology. Research dating back to the Vietnam era (1955 to approximately 1975) indicated that there are negative psychological consequences from frequent exposure to traumatic or violent events (Laufer, Gallops, & Frey-Wouters, 1984). Birrell and Freyd (2006) suggest that psychological symptoms promoted by exposure to traumatic or violent situations are insomnia, anxiety, irritability, reduction in empathy, feeling constantly on guard, anger issues, and/or unpleasant memories.

Research and experience suggest that observing a person or people suffering is stressful (Hanson, 2003). Police officers are more likely to become victims of work-related psychological trauma resulting from exposure to traumatic or violent events or images (Huddleston, Stephens, & Paton, 2007). The effect of traumatic events can be disruptive and distressing to police officers, last a long time after involvement with the

victim, and possibly lead to poor emotional and psychological health over time (Huggard & Dixon, 2011).

Also, this research will support the importance of professional training for law enforcement and mental health professionals with regard to violence and traumatic stress. Additionally, it can lead to the future development of intervention programs that teach police officers about cognitive empathy and the importance of cultural sensitivity. It is hoped that these programs will lead to positive social change within the police community by providing support to officers who are frequently exposed to violent or traumatic events while working.

Summary

This research will not protect police officers from the frequent exposure to human tragedy and other social problems; however, the research will provide positive social change by providing additional information to police departments and mental health workers. Police departments will be able to use the information to improve polices/procedures referencing sick leave, mental health leave, alcohol and substance abuse, problem solving, conflict resolution, stress management, and gender and racial equality. Furthermore, mental health workers can use the information to assist with determining the potential causes of police officers developing domineering, restrictive, and rigid behaviors when involved in family issues (i.e., domestic violence) and personal mental health issues (i.e., depression, anger, alcohol abuse, PTSD, hypochondriac tendencies, etc…).

This research will also benefit police officers and their families because it will provide them with insight on the psychological and physiological effects of police

officers who internalize distressing symptoms. After 25 years of working as a police officer and police investigator, experience suggest police officers are targeted with psychological stress from all sides: the public, undesirable work schedules, the inherent dangers of the job, the court system, the media, the police administration, and the negative effects of the police occupation on the family. A survey of the current literature suggests my research will add to what is known about the effects of frequent exposure to violent or traumatic events / images. It will help to identify relevant interventions for reducing mental-health problems, refining stress-reducing efforts, and promoting effective coping in police officers (Van der Velden, Kleber, Grievink, & Yzermans, 2010). Furthermore, it is anticipated the research data will lead to future research within the criminal justice, political science, occupational health, and psychology fields.

Chapter 2 will consist of a review of the appropriate literature on women and men police officers exposure to violence/trauma and the effect of internalizing and externalizing psychological stress. In Chapter 3 the researcher will describe the methodology and measures for data collection, along with the sample population, procedures, and ethical considerations.

CHAPTER 2: Literature of Review

Introduction

Frequent exposure to violence and traumatic events during a police officer's career can lead to long term mental health issues. Many believe that these mental health problems come about because police officers tend to internalize psychological distress. It is reasonable to conclude that exposure to violence, death, and serious injuries are unwritten job descriptors of the police occupation. Sherman (2006) suggests this type of exposure can haunt police officers for the remainder of their natural lives. However, there is a "code of silence or unspoken concern" (Kaariainen, Lintonen, Laitinen, & Pollock, 2008) within the law enforcement culture of how police officers' cognitive empathy (human compassion) is affected by the frequent exposure to traumatic and/or violent events or images (FETVEI). This quantitative study will fill a gap in the literature by showing how an understanding and acknowledgement of the psychological damage of FETVEI can support the training and mental health treatment of law enforcement officers. It is hoped that this research will lead to an improved quality of life for police officers.

The purpose of this research is to study how frequent exposure to traumatic stressors contributes to mental health difficulties. One specific concept chosen to measure is how frequent exposure to violence and trauma can change cognitive empathy in police officers. In this study, the level of decreased cognitive empathy in police officers will be examined. Also, the extent of a decrease in cognitive empathy among police officers will be clarified in this research.

The thought of a violent incident does not end when police officers leave the scene and return to their regular duties or family life. Police officers have to cope with the consequences (memories) of the image and thoughts of that one incident (Condon & Feldman-Barrett, 2013). Their memories carry over each day while they are mentally prepping themselves for the next traumatic scene (Versola-Russo, 2005). For example, a police officer attempted to save a male's life by performing CPR; however, without success, the male died. Minutes later, the officers departed the scene and responded to the next 911 call for service. It is common for a police officer to respond to several 911 calls per day. In the City of Norfolk police officers respond to approximately 100 – 120 violent or trauma related calls per day (P. Carter, personal communication, June 9, 2014). Another researcher, Sherman (2006), indicated this type of repeated exposure causes officers to have difficulty sleeping, feel tense, short-tempered, depressed, fatigued, and often emotionally numb. It is reasonable to conclude FETVEI affects the way police officers interact with co-workers, citizens, and family members.

The stress levels involved in police work affect police officers' physical health, mental health, and interpersonal relationships. According to Miyazaki et al. (2013), exposure to stress is related to an increase in the incidence of various psychiatric illnesses. Depending on their age, this tends to make police officers prospective candidates for mental health services (Ménard & Arter, 2013; Woody, 2006). This research will investigate the early onset of distressing mental health symptoms as well as the degree of loss of human compassion in police officers who are FETVEI. This research will examine how police officers internalize symptoms associated with anxiety, depression, and substance abuse. After varying periods of time, police officers are likely

to be at greater risk of engaging in externalizing behaviors such as suicide and aggressive behaviors (i.e. police brutality and/or family/intimate partner violence). Additionally, if a relationship between internalization of mental health issues and FETVEI can be established in police officers, we can better focus treatment interventions.

The current literature establishes the significance that police officers are prospective candidates for mental health services. Aker, Onen, and Karakiliç (2007) indicated that psychological disturbances as a result of FETVEI have been a topic of discussion in the mental health industry for over 100 years. During the tenure of a police officer's career, he/she will have FETVEI that most citizens will not encounter in a lifetime (Addis & Stephens, 2008); yet, little is known about how police officers process these events or images, keeping in mind that not all police officers cope with traumatic events in the same way. The fact remains that there will be police officers who internalize distressing symptoms and do not seek mental health services. According to Trumpeter, Watson, O'Leary, & Weathington (2008), those police officers will become unstable, fragile, and vulnerable to the traumatic frustration of destructive relationships and self-image.

The culture of law enforcement is shielded and tends not to let outsiders obtain mental health information that is harmful to the badge. Police officers constant exposure to these events generally leads to poorer levels of mental health in the area of cognitive, physiological, and emotional problems (Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995; Murphy, Rosenheck, Berkowitz, & Marans, 2005). Police officers do not have a "trauma-meter" to indicate when they are is nearing their threshold for coping with trauma. As a result, many police officers go undiagnosed with symptoms related to

coronary disease, alcoholism, sleep deprivation, mood swings, difficulty concentrating, and various other psychological symptoms or disorders (Sijaric-Voloder & Capin, 2008). Additionally, these symptoms are externalized into behaviors such as physical aggression (i.e. police brutality or family violence), substance abuse, and/or suicide (Van der Velden, Kleber, Grievink, & Yzermans, 2010).

Policing has been in existence since the early 1800s (Wolcott, 2006). Police departments around the world provide patrol service and enforcement of criminal and traffic laws and respond to countless 911 calls. These provisions are written in the police officer's job description; however, the magnitude of the danger and long-term mental health problems are not. The past thirty years of research found that first responders (McCaslin et al. 2006; Gerson, 1989) or police officers exposed to traumatic events (Andersen & Papazoglou, 2014) can become victims of work-related psychological trauma (Huddleston, Stephens, & Paton, 2007).

Psychological disturbances as a result of FETVEI have been a topic of discussion in the mental health industry for over 100 years (Aker, Onen, & Karakiliç, 2007). Research dating back to the Vietnam era (1955 to approximately 1975) indicated that there are negative psychological consequences from FETVEI (Laufer, Gallops, & Frey-Wouters, 1984). These negative psychological effects remained with the individual long after the traumatic incident. These types of problems led the National Institute of Mental Health (2014) to develop a Violence and Traumatic Stress Research Branch. This branch's sole purpose is to conduct research on how exposure to violence or traumatic events affects an individual's mental health.

Papazoglou (2013) suggest there is ongoing research involving police officers' FETVEI. There is research on police officers' mental health internationally; however, there is limited research on police officers' mental health within the United States. The culture of law enforcement is shielded, in which police officers are loyal and protective of each other (Shockey-Eckles, 2011). This presents a problem to researchers and mental health professionals who seek personal information, particularly related to mental health concerns from police officers.

Most of the current empirical research involving police officers was conducted on police organizations outside the United States. Nevertheless, policing has universal criteria, which entail the basic principles of protecting and serving the public. Expanding the research to review empirical articles on other countries' police forces increases the amount of current research on police officers' FETVEI.

Theoretical Foundation

The Cognitive Theory was used to support this research. Cognitive psychology is the foundation of the cognitive theory. Cognitive psychology is one of the most significant schools of psychology (Ruisel, 2010). Solso (1998) indicated that "cognitive psychology involves the total range of psychological processes from sensation to perception, neuroscience, attention, pattern recognition, consciousness, learning, memory, concept formation, intelligence, emotions, imagining, remembering, thinking, and developmental processes—and cuts across all the diverse fields of behavior" (p. 2).

Cognitive psychology was started by William Wundt. However, due to his weak methodology, his concept was overshadowed by the study of behaviorism. Psychologists later developed an interest in the mind being conceptualized as an information processing

device (i.e. artificial intelligence) and dissatisfaction with behaviorism (Solso, 1998). As a result, the reemergence of cognitive psychology began. Although there is no agreed upon date, it was estimated that cognitive psychology reemerged during World War II or between 1950 and 1970 (Hollon & DiGiuseppe, 2011).

Major Hypothesis

A major hypothesis for this research involves the internalization of psychological distressing thoughts and emotions. Police officers who are FETVEI will internalize emotions and not seek mental health treatment. It is not stress-free to combine empathy and understanding with authority and control, and then have cognitive awareness remain unbiased, restrained, and professional with citizens they encounter. Also, police officers who internalize psychological distressing emotions resulting from the FETVEI will externalize through displaying symptoms of posttraumatic stress, depression, lack of cognitive empathy/compassion, anxiety, insomnia, physical aggression (i.e. police brutality or family violence), substance abuse, and/or suicide (Addis & Stephens, 2008; Papazoglou & Andersen, 2014; Violanti et al., 2006).

Research Theory

Beck's (1976) cognitive approach is concerned with the conscious implication of external events. He also suggests that in order to understand a person's emotional reaction to an event, it is essential to explain personal meaning (i.e. what does that event mean to you?). The cognitive theory suggests that police officers externalize various negative or maladaptive behaviors as a result of FETVIE. According to McGarvey (2001), the cognitive theory suggests that individual interaction takes place through the cognitive processes of how a person interprets and assesses his or her environment.

The frequent exposure to violence leads to many negative outcomes and contributes to externalizing behavior problems (McMahon, Felix, Halpert, & Petropoulos, 2009). They also suggested that the cognitive theory can better assist with developing intervention efforts. Over the past twenty years, cognitive factors have served in mediating roles with people who have had FETVEI (Anderson & Bushman, 2002). Additionally, cognitive treatments were proven to be the most effective with helping people manage and understand symptoms related to the frequent exposure of traumatic and/or violent events (Resick, 2001).

Cognitive Psychology towards Symptom Reduction

People having problems readjusting to a particular situation after exposure to a traumatic or violent event have revealed symptoms reduction after receiving cognitive therapy (Owens, Chard, & Cox, 2008). Cognitive theories of psychology focus on the internal states, such as motivation, problem solving, decision-making, and thinking. To be more specific, cognitive psychology engages how the brain processes information (Groome, 1999) to manage the various situations of a person's reality (Prochaska & Norcross, 1999). Groome also revealed that the brain processes information obtained from the memory of an individual's knowledge and past experiences.

Groome's research adds credibility to Beck's (1976) suggestion that frequent storing of traumatic memories and thoughts will affect a person's emotional and behavioral response to various situations. It is reasonable to conclude that police officers make decisions that affect their lives and the life of the person that is being assisted or arrested. Overall, the rationale for using the cognitive theory was based on the suggestion that FETVEI leads police officers to enduring maladaptation and impairment across

cognitive, emotional, and physiological domains that affect their decision making process (Murphy, Rosenheck, Berkowitz, & Marans, 2005; Wilson, Woods, Emerson, & Donenberg, 2012).

Most individuals' schemas are established prior to being hired as police officers. However, it is hypothesized that after years of FETVEI, police officers' schemas (i.e. view of self, world and others) gradually change without notice to the police officer. Straker, Watson, and Robinson (2002) indicated that after a person is exposed to trauma, his or her previous schema is discontinued to make sense of the current trauma. Furthermore, the trauma that police officers receive is frequent and unpredictable, which results in the traumatic event not getting assimilated into a new schema. As a result, Straker, Watson, and Robinson suggest that police officers are unconsciously attempting to cognitively process multiple traumas with none able to coexist with a new traumatic or violent event.

Research supports the cognitive theory in its suggestion that individuals who maintain negative or traumatic information or images in long-term memory are vulnerable to mental illness (Brewin, 1996). Approaching this topic from the cognitive perspective will permit the researcher to formulate an interpretation of how a police officer's cognitive empathy is affected by the FETVEI. This frequent exposure will result in police officers internalizing and unconsciously denying or ignoring symptoms of depression and PTSD and externalizing behaviors such as physical aggression (i.e. police brutality or family violence), substance abuse, and/or suicide (Van der Velden, Kleber, Grievink, & Yzermans, 2010).

The cognitive theory relates to this study and the research questions. Psychological and physiological developments are often affected as a result of exposure to any type of violence (Wilson, Woods, Emerson, & Donenberg, 2012). The outcomes of "traumatic or violent exposures" may vary between police officers. Colwell, Lyons, Bruce, Garner, and Miller (2011) suggested that police officers will likely think about (e.g. cognition) the same traumatic or stressful events in terms of their well-being and coping style. Why the cognitive theory is the most appropriate for this research was best summarized by Janoff-Bulman (2004). Her research suggested that cognitive therapies help police officers restructure and re-interpret traumatic or violent events with the goal of reducing future physiological or psychological distressing symptoms.

The research questions will challenge cognitive theorists to continue improving and developing cognitive techniques that will assist police officers in minimizing various physiological and psychological symptoms resulting from the FETVEI. This is a necessity because, similar to other areas of employment, a person's career will end via retirement (Pritam, 2011), involuntary or voluntary termination (Willis, 2006), or death (Dwyer, Deshields, & Nanna, 2012). In order to facilitate the building of the cognitive theory, the research questions suggest that cognitive theorists engage active police officers. This is important because, during a police officer's career, these questions are engaged with minimal impact to the officer and his or her department: "How does a police officer engage traumatic or violent memories? What are the psychological and physiological symptoms of concern? What are the impacts of not engaging distressing symptoms?" Minimal engagement of these problems during a police officer's active

career will lead to concerns upon the police officer retiring or merely leaving the police department.

Similar to active police officers, the questions for retired police officers are: "What does a police officer do with various traumatic memories that he or she has been exposed to throughout his or her career? What are the long-term psychological and/or physiological symptoms the police officer will endure? And was the police officer offered the proper mental health treatment or education to engage 'potentially' distressing psychological and physiological symptoms?" It is not a secret that police officers will be exposed to traumatic and violent events. This research will build upon the intervention strategies used by cognitive theorists to engage the immediate and long-term effects of the FETVEI (Regehr, LeBlanc, Jelley, Barath, & Daciuk, 2007).

Human Compassion/Cognitive Empathy

Police work is one of the most stressful jobs (Louw & Viviers, 2010); however, it is a satisfying job, in which police officers gain pleasure and professional recognition. Due to FETVEI, it comes with the "hefty" price of discouragement and emotional burden (Wilczek-Ruzycka, 2011). To minimize the emotional burden and discouragement, police officers unconsciously suppress or internalize their emotions which engage their human compassion. The curiosity of this concept is, "What is the long term psychological outcome of police officers who suppress or internalize those emotions?" Caplan (2003) found that after days, weeks, months, or years of FETVEI, police officers become cynical or hardened individuals, in whom there is a loss of human compassion.

This research uses the cognitive theory to discuss the psychological effect of the FETVEI on police officers' cognitive empathy. Smith (2006) defined cognitive empathy

as understanding of and sensitive to others' mental health. According to Smith, having cognitive empathy enables police officers to understand and predict human behavior without having special psychological training. Smith also indicated that having cognitive empathy allow police officers the opportunity to recognize when a person is being questioned is lying or trying to be deceptive. Ray, Wong, White, and Heaslip (2013) suggested without cognitive empathy police officers will lose that investigative edge which will ultimately interfere with job performance. However, due to a lack of mental health intervention programs, police officers are not afforded the opportunity to protect themselves from becoming hardened or cynical individuals' after FETVEI.

Empathy plays a major role in police officers' behavior and perception (Hogan, 1969). Police officers who lack human compassion will likely have a decrease in tendency to understand the emotional problems of others. In other words, police officers find it difficult to "imaginatively" think about putting themselves into the situation of another. It was concluded that, to avoid distressing thoughts (i.e. need to feel dominant, in control, etc…), police officers often work excessively as a coping mechanism (Solan & Casey, 2003).

The concept of this research is utilizing a cognitive approach to illustrate how police officers' human compassion is affected by the internalization of psychological symptoms resulting from the FETVEI. Police officers meet countless people from many cultures and economic levels (Huggins, 2012). However, police officers mostly encounter people during "trouble times" in their life (i.e. family/non-family conflict, traffic infraction, vehicle accident, victim of a crime, mental health crisis, suspect of a crime, etc.). During these moments, police officers display minimal to not any signs of human

compassion (Chopko, 2011). Police officers internalize emotions which support human compassion (Galatzer-Levy, Brown, Henn-Haase, Metzler, Neylan, & Marmar, 2013). The internalization of emotions is closely linked to police officers' ability to perform their job within the standards and values of the police department (van Gelderen, Bakker, Konijn, & Demerouti, 2011).

Baum (2012) suggested that internalizing emotions of human compassion allows police officers to establish a defense to distance themselves from the emotions, which may "ward off" depression and/or anxiety. This in turn can affect the police officer's decision making. When police officers distance themselves from their emotions or internalize distressing emotions, it reduces their ability to empathize with citizens. Baum (2012) also suggested that, while helping citizens, police officers internalize emotions related to traumatic or violent events because the event reminds them of their own mortality. Baum concluded his research by indicating a need to continue research to understand the emotional processes that police officers undergo and how they can maintain cognitive empathy in an environment where they are frequently exposed to violent and/or traumatic events.

The FETVEI may interfere with police officers' ability to cope with events that are violent dangerous, tragic and unpredictable (Colwell et al., 2011). As a result, the process of healing may require a large amount of mental and emotional energy. Colwell et al. suggested that police officers' psychological symptoms may go undetected for months or years. It is reasonable to conclude that the constant stress of the job places police officers in unavoidable positions for exposure to future traumatic and/or violent events. Future predictions of frequent exposure suggest a continued internalization of psychologically

distressing symptoms, decrease in cognitive empathy, and the continued compounding of trauma.

This research indicated that physiological and psychological issues are more prevalent in police officers (Anshel, Robertson, & Caputi, 1997). The neurobiological effects of trauma and stress have been associated with psychiatric diagnoses and behavior problems (Lawson & Rowe, 2009). These significant concerns indicate that police officers have higher suicide, divorce, and substance abuse rates than the majority of occupational groups. Graf (1986) conducted research with 77 police officers, and he found that two-thirds were not coping effectively with issues encountered at the job. Police officers do not want to be seen as weak and unable to deal with the stress and danger of the job. Anshel et al. (1997) supported the reasonable conclusion that police officers experience significant stress and avoid coping effectively with the distressing symptoms by internalizing their mental health issues.

According to Garner (2008), police officers are exposed to intense situations that may cause emotional exhaustion and psychological distress (Garner, 2008). Garner conducted a study with 63 law enforcement officers from three different departments, and it was determined that participants in various stress management programs were positively impacted. After division into three groups, the result reflected that the two groups which received some type of training reported fewer sick days, more job satisfaction, and feeling/being psychologically equipped to deal with stressful situations than the third group, which received no training.

Evans and Coman (1993) conducted a study in which they found policemen to be emotionally detached, lacking human compassion, and rejecting the thought of talking

about personal mental health issues. Burke (1993) suggested in his research that internalization of symptoms related to the frequent exposure to violence and trauma leads police officers toward physical isolation. The dsiplay of frequent exposure to violence will vary based on the police officers' career longevity and personality. As a result, it was concluded that police officers will externalize aggression towards others and/or engage in self-medicating and/or self-defeating behaviors (i.e., substance abuse, extra-marital affairs, or refusal to seek mental health treatment) in order to achieve mastery over internalized psychological threats of emerging helplessness. More research is needed to identify police officers whose cognitive empathy has been affected by the FETVEI (Anshel et al., 1997). They proposed continued, examining of cognitive appraisal and reappraisal to address the changing nature of stressful events.

Cognitive Empathy: This research discusses cognitive empathy; the framework of this research revolves around the terms cognitive and empathy or, simply stated, human compassion. The terms are associated because research suggests that empathy is a cognitive phenomenon (Shamay-Tsoory, Tomer, Goldsher, Berger, & Aharon-Peretz, 2004). Cognition involves the thought process, whereas empathy is the unbiased awareness of another person's thoughts and feelings (Corsini, 2002). Decety and Jackson (2004) suggest that empathy is having the capacity to understand others and experience their feelings. Baron-Cohen (2011) defined empathy as "the desire to protect." Therefore, what is the definition of cognitive empathy? Churchill and Bayne (1998) defined cognitive empathy as seeing the world as another does. Blair (2005) reported that cognitive empathy was having the ability to understand the mental state of another person. Based on the research available, it is reasonable to conclude that cognitive

empathy is having human compassion (i.e. understanding what and how you feel). In this research project, the terms (cognitive empathy and human compassion) will be used interchangeably.

Benefits of Current Study

Concepts from previous research will be used to support the framework of this study. Mental health professionals rely on mental health clients to report any distressing symptoms that will assist in establishing a diagnosis and developing an appropriate treatment plan. Potrata, Cavet, Blair, Howe, and Molassiotis (2010) suggest that little is known about the distressing experiences that people conceal. Therefore, it is often problematic to determine what unreported distressing symptom is facilitating other disturbing psychological symptoms. The premise of this research is linked to thinking and emotions, which is the central-focus of cognitive behavioral therapy (CBT). If a person does not provide their mental health provider with all information about their feelings, it becomes difficult to engage a thought changing process. Several empirical mental health articles from the National Institute for Clinical Excellence (2012) website recommended CBT as a form of treatment to increase insight into mental health issues.

Frequent exposure to violence or traumatic events increases a person's susceptibility to psychological or physical health problems. As a matter of fact, very few people become police officers with a realistic idea of the long term psychological effect. Shaw (2007) reported that human-generated violence endorses many psychological distressing symptoms. He referred to war veterans as people who adapt to repeated psychological trauma resulting from the frequent exposure to violence. Although police officers are not in a "combat zone," they often enter conflicts which are life threatening.

Therefore, it is reasonable to agree with Shaw's suggestion that stress occurs across a time line. The risk of suffering from psychological distressing symptoms increases with the frequency of exposure to traumatic or violent events.

Sleep related issues can evolve from how unreported distressing psychological symptoms. According to the Brigham and Women Hospital (2011), approximately 50 – 70 million Americans have unreported and untreated sleep disorders. The hospital conducted two years of research on 4,957 North American police officers. It was revealed that 40% had sleep disorders; however, most were undiagnosed and untreated. The results also reported that police officers who suffer from sleep disorders have other problems, such as physical and psychological concerns, sleep related accidents, personal safety errors, uncontrolled anger towards suspects, and/or high sick leave use. Harvey and Tang (2012) supported the hospital's research in their report that symptoms of sleep disorders (i.e. shift work, chronic stress, job stress, alcohol use, medical issues, psychological issues, etc.) can have a negative health, occupational, and psychosocial outcome for anyone. A study by Sato, Yamadera, Matsushima, Itoh, and Nakayama (2010) discovered that CBT was able to improve sleep behavior by restoring improper cognition about sleep. Overall, Harvey and Tang, among others, reported that the cognitive based treatment of CBT is the most effective when treating individuals with sleep concerns (Pigeon, 2010; Woodward, 2011).

Continued internalization of psychological distressing symptoms will affect police officers' cognitive empathy/human compassion. The study by Sijaric-Voloder and Capin (2008) reports there are long-term physical and psychological consequences related to ignoring or internalizing distressing symtpoms (Sijaric-Voloder & Capin, 2008).

Considering this idea from a cognitive (i.e. thought process) stand-point will benefit the framework of this research. Change is inevitable (Donofrio, 2010), and if law enforcement officers do not decrease the internalization of distressing psychological symptoms after exposure to violent or traumatic events, they will engage in maladaptive behaviors (i.e. substance abuse, police brutality, domestic violence, depression, and/or suicide) during some juncture in their lives.

Additionally, this research benefits from the cognitive theory framework because police officers do not consciously consider their internal thoughts and emotions after exposure to a violent and/or traumatic event. At some point (i.e. solicited or unsolicited), a police officer will have to bring a traumatic experience back into his or her active thought process and engage the disturbing emotions or thoughts (Cartwright, 2009). This is why continued research in the area of verbalizing rather than internalizing distressing psychological symptoms is necessary (Goodell & Nail, 2005). This project will further the research from a cognitive perspective on the long term effect of internalizing emotions that resulted from police officers' FETVEI.

Correlated Research

There are studies related to the methods that are consistent with the scope of this research topic. Police officers are subjected to a loss of cognitive empathy and compassion fatigue. According to Bourassa (2009) and Harr (2013), compassion fatigue is the physical and/or psychological effects (i.e. negative consequences) experienced by individuals who work with or help victims involved in traumatic life events. These events may include murder, sexual abuse/rape, natural disasters, or any disturbing life event that mentally or physically harms a person.

Other individuals (i.e. emergency service workers and healthcare professionals) working in stressful environments may also have a reduction in their cognitive empathy or human compassion (Bourassa, 2009; Harr, 2013; Versola-Russo, 2005). As suggested earlier, more research is needed to bring forth the significance of the idea of engaging unreported internalized distressing psychological symptoms. There are several researchers that conducted research based on the concepts of this research project. Craig and Sprang (2010) conducted a study with a sample size of 562 national self-identified trauma specialists (i.e. psychologists and licensed social workers). Their research suggested that frequent exposure to trauma can lead to burnout and compassion fatigue (Craig & Sprang, 2010). They also suggested that psychological treatment will decrease compassion fatigue and burnout and improve compassion satisfaction.

Badger and Craig (2008) conducted a study of a sample size of 166 social workers from five mid-western hospitals. They found that hospital social workers indirectly exposed to trauma may suffer from negative mental health issues. Their research suggests that this is from the depressing, helpless, and stressful appearance of the medical/hospital environment. Badger and Craig also reported that hospital social workers have to maintain empathy because it is the core of the therapeutic alliance. If empathy is not maintained, over the long-term, the workers will endure a decrease in their cognitive empathy. Additionally, the worker must also have support from coworkers and supervisors to minimize the loss of empathy. Badger and Craig suggested that hospital social workers and hospital administrators seek additional education on how to maintain empathy, get clarity on the vulnerabilities of internalizing distressing thoughts, and create a culture/work environment that supports processing traumatic events.

Thompson and Waltz's (2008) and Birnie, Speca, and Carlson's (2010) research revealed that mental health treatments were starting to utilize compassion based therapeutic approaches. Thompson and Waltz revealed significant results after an 8-week Mindfulness-Based Stress Reduction (i.e. emphasis on thoughtfulness and caring) program. They found that mental health professionals reported an improvement in cognitive empathy, which leads to a reduction of distressing psychological symptoms. Leary et al. (2007) suggested that individuals who discussed painful thoughts and emotions had higher self-compassion and were less likely to internalize distressing psychology symptoms. Acceptances of internal and external thoughts are concepts of a mindfulness therapeutic approach (Chiesa & Serretti, 2009). As a result, it is hypothesized that individuals who report psychological distressing thoughts will improve cognitive empathy as well as increase cognitive capacity for problem solving.

Researchers in the discipline have approached the issues of policing; however, there are strengths and weaknesses inherent in their approaches. Research is ongoing in the area of how the frequent exposure to violence and trauma affects an individual's cognitive empathy. Lietz (2011) indicated that having empathy improves resilience. Lietz suggested that when people talk about their personal experiences of trauma (i.e. with a friend or professional mental health worker), their cognitive empathy improves and allows them to cope with future stressful events. This is supported by Ciampi's (2012) research suggesting traumatization is likely to occur when a person is not mentally prepared. The strength in Lietz's research is that a police officer can make a difference in his or her life if there is a desire to gain insight into his or her behavior and a willingness to make the necessary life adjustments (Hunter, 2012).

Lietz's research has a weakness, and, according to Hunter, the success of Lietz's approach to improving empathy will depend on how well the police officer "connects" with the person with whom he or she is sharing the information. During therapy sessions, police officers are least likely to be forthcoming with internalized thoughts of distressing psychological issues. Why? Over the past 25 years, the researcher has learned that there is a "code of silence," and if you are not within the police circle (i.e. police member or family member); information that can damage a police officer's career is considered protected information. It was found that police officers will complete anonymous surveys in which sensitive information about police culture is disclosed (Kaariainen, Lintonen, Laitinen, & Pollock, 2008). Also, when the police officers become vocal about their personal problems, "listeners, beware" because only the officer knows what psychological distressing information is about to be released (Birrell & Freyd, 2006).

According to Lietz (2011), a failed therapeutic relationship will impact the communication needed to establish a foundation towards behavior modification or improvement in cognitive empathy. A therapeutic relationship is important because the law enforcement culture promotes a silent and undocumented code of loyalty, trust, and secrets. All three are a package deal, and, without one, a police officer cannot have the other. If either one is violated, regaining credibility is practically impossible. Police officers' violations follow them throughout their career. Similarly, if police officers trust a therapist with their personal mental health information, they expect the information to remain confidential. A police therapist or psychologist should know that a violation of one police officer's trust is a violation of all police officers' trust.

Research Variables

Research justifies the rationale for the selection of the variables used in this study. Three variables which justify this research are vicarious traumatization, life threatening situations, and social betrayal. First, McCann and Pearlman (1990) define vicarious traumatization as a lasting emotional and psychological consequence resulting from the frequent exposure to a traumatic or violent experience. People are traumatized by violence, abuse, and oppression (Birrell & Freyd, 2006). However, a person does not have to be the victim to suffer a traumatic experience. For example, police officers can be vicariously traumatized victims (Versola-Russo, 2005) as a result of their empathic involvement with people and exposure to other people's traumatic events (Ilesanmi & Eboiyehi, 2012; Jordan, 2010).

Secondary exposure impacts the empathy or emotions of police officers, both at the conscious and subconscious level (Devilly, Wright, & Varker, 2009). It is hypothesized that police officers' secondary exposure traumatic memories are at the subconscious level. They do not recognize and resolve psychological distressing issues that are affecting their emotions or empathy. Ilesanmi and Eboiyehi suggested that vicarious traumatization derives from individuals suffering from unwanted physical symptoms, disruptive/shift cognitive schemas (i.e. view of self, world, and others), angry outbursts, difficulty sleeping, anxiety, concentration problems, interpersonal problems, substance abuse problems, and/or a decrease in human compassion.

Secondly, research suggests that approximately 87% of police officers will enter a life threatening situation, (Kureczka, 2002) some of which are fatal. On the other hand, most life threatening encounters are not fatal. According to Leonard and Alison (1999),

frequent exposure to life threatening events can be psychologically devastating. Life threatening situations carry a significant amount of stress (Mishra et al., 2011), and police officers who lack the ability to cope are subjected to various psychological problems. Psychological symptoms promoted by exposure to life threatening situations are insomnia, anxiety, irritability, and a reduction in empathy, feeling constantly on guard, anger issues, and unpleasant memories (Birrell & Freyd, 2006). Police officers who minimize the severity of these symptoms will have difficulty making "tough choices or decisions" when engaged in life threatening situations. For this reason, police officers should have a stabilized mental presence when engaging the decision-making process (Cohen, 2008) to use or not to use deadly force (Gomez, 2002).

Finally, people are victims of social betrayal (i.e. violence or trauma involving interpersonal relationships) traumas (Birrell & Freyd, 2006). They suggested that frequent exposure to scenes of social betrayal can lead to isolation (i.e. interferences in connection to the self) and loss of cognitive empathy. Research suggests that the greater frequency, severity, and duration of these types of exposures typically (Martin, Cromer, DePrince, & Freyd, 2011) result in poorer mental health outcomes. Police officers are the first responders or criminal investigators of violent or traumatic scenes of betrayal. Additionally, this type of frequent exposure can affect a person's information processing and coping style (Freyd, DePrince, & Gleaves, 2007).

Regardless of the type of betrayal involved at the scene, police officers are required to regulate their emotions (Cole & Putnam, 1992) and maintain professionalism. The regulation of emotions and maintenance of professionalism appears manageable to outsiders because social betrayal awareness is often suppressed. It is hypothesized that

police officers suppress social betrayal trauma because they are attached to their jobs, and any verbal expression of this type of trauma is a predictor of PTSD (Freyd, 2012) which will more than likely put the police officers' employment at risk. Long-term risk for mental health problems (depression, dissociative symptoms, and/or PTSD) is the downside of suppressing this type of trauma (Martin et al., 2011). Dissociation is hypothesized to be the most common because it allows police officers to continue functioning as preservers of social order while internalizing issues of betrayal caused by family, supervisors, and friends.

A Review of Other Study Related Variables

A review and integration of studies related to the variables used in this research was done to produce a description and explanation of what is known about the variables. A police officer is a person who maintains law and order by protecting members of the public and their property, preventing crime, reducing fear of crime, and improving the quality of life for all citizens. Police work is mentally and physically demanding, and it requires mediation skills, ethics, self-discipline, and human compassion/cognitive empathy. Police officers patrol designated areas in a patrol car, on a bicycle / motorcycle / horse, or on foot to protect life and property.

Police officers investigate and/or arrest those who violate the federal, state, and local laws. Police work is one of the most stressful occupations in the world (Anshel, 2000). What is underrated in police work is the effect of frequently exposing police officers to their stress limits. Anderson, Litzenberger, and Plecas (2002) suggested that limits are often acknowledged when the police officer has an increase in sick leave usage

(i.e. may be due to mental or physical health issues), verbalizes concerns of job dissatisfaction, receives excessive citizen complaints, or exhibits poor work performance.

It is hypothesized that this is the precursor to alcohol/substance abuse, suicide, depression, or PTSD. All are the results of a failure to cope effectively with stress (Kimbrel et al., 2011). To support this hypothesis, Tang and Hammontree's (1992) research with 60 police officers found that high levels of police stress and life stress are related to mental and/or physical illness. They also reported that physical danger is a main characteristic of police work and very little can be done to reduce those stressors.

The second dependent variable of this research topic is cognitive empathy. For the purpose of this research, cognitive empathy / human compassion is describing a police officer's understanding of how another person may be feeling and what he or she might be thinking. For example, a police officer went to a residence and found a 10 year old child deceased on the floor. The child's television fell from a stand onto his head. Shortly afterward, the mother arrived home, and the police officer told the mother that her child was deceased. After approximately 10 minutes had elapsed, the police officer and his partner were teasing each other and discussing lunch plans on the front porch of the house. The citizens of the community viewed these two police officers as being insensitive towards the family and the community.

Police officers encounter all types of people, and most of these encounters occur during a crisis or "when the person is having a bad day." The above example was controversial because some members of the community viewed the police officers as non-empathic to the family's personal crisis. Police officers are public servants who enforce the laws. Police officers are not mental health therapists with the time or training

to emotionally process each crisis situation with each citizen. The example provided was only one scenario out of thousands in which police officers' lack of cognitive empathy is exposed. Police officers have to be "social people." Bailey, Henry, and Von Hippel (2008) reported that empathy is necessary for successful social functioning. The diminishing effects of cognitive empathy in police officers are an area in which research continues.

The independent variable in this research is the frequent exposure to violent or traumatic events or images. For the purpose of this research, a violent or traumatic event or image is described as responding to the scene of a murder, fatal traffic accident or violent domestic assault, or investigating the non-violent or violent rape/abuse of a child, or hearing the traumatic / violent stories from other police officers. Additionally, it could be as global as the terrorist attacks on American soil in New York, Washington, DC, and Pennsylvania on September 11, 2001; the assassination of Dr. Martin Luther King and John F. Kennedy; the Columbine High School Massacre; and Hurricane Katrina on the Gulf Coast. During these traumatic events, it is known that police officers saved lives and sacrificed their own lives to save other people's lives.

Research by Pollard (2011) revealed that during the time of the above global traumatic events, people who were not at the scene of these events, but were exposed to them by the frequent hearing, reading, or seeing images of these events, suffered from "trauma by proxy." Although trauma by proxy is somewhat controversial, Finkelhor, Ormrod, and Turner (2009) suggested that the FETVEI are related to mental health issues. Additionally, certain traumatic or violent exposures may have a different effect on

a person when combined with other types of traumatic or violent exposures (Salloum, Carter, Burch, Garfinkel, & Overstreet, 2011).

Exposure to traumatic or violent scenes puts people at risk for psychological distressing symptoms. What remains to be studied are the police officers who have good psychological adjustment, high levels of resilience to psychological distressing, and good coping skills when engaging traumatic thoughts. This indicates that there are police officers who successfully cope with frequent exposure to traumatic or violent events and do not have psychological distressing symptoms (Wingo, Fani, Bradley, & Ressler, 2010). The question asked: How do those police officers process traumatic or violent events or images?

The Effects of Frequent Exposure to Trauma

The evaluation of studies revealed that there were gaps in subject matter related research. This gap has led to the development of several research questions for this project. The main idea of this project is grounded in the idea of what the exposure to traumatic and/or violent events or images does to a person's cognitive empathy, specifically police officers. Cognitive empathy was defined earlier in this research as a thought (i.e. cognitive) and emotional (i.e. empathy) process. However, thoughts (Belsher, Ruzek, Bongar, & Cordova, 2012) and emotions (Craig & Sprang, 2010) can be affected by traumatic and violent events. And, during the tenure of police officers' career, they will be exposed to violent or traumatic events or images that most citizens will not encounter in a lifetime (Anderson & Lo, 2011).

Police officers rank exposure to traumatic and violent events as the most stressful (Violanti et al., 2011). When violent or traumatic events end, the exposed police officers

continue to live with the emotions of the event. As a result, the frequent compounding of emotions related to the exposure to violent or traumatic events has long-lasting effects (Versola-Russo, 2005), as well as changing the perception that police officers have toward people and different neighborhoods. It is hypothesized that a consistent answer to the following research questions will assist in the development of intervention programs which will contribute to the mental health stability of people who work in environments in which they are frequently exposed to violence and/or traumatic events or images.

First, police officers are unconsciously desensitized toward human empathy / compassion after years of exposure to traumatic and/or violent events or images. It is hypothesized that police officers do not become police officers with the conscious thought that they will become less empathic or compassionate after years of working as a police officer. Police officers are often referred to as keepers of peace in society or free world protectors (Malmin, 2012). Therefore, police officers cannot share the same burden of the emotional trauma of citizens whom they encounter. If police officers took on the emotional burden of citizens, they would subject themselves to compassion fatigue (Boyle, 2011).

Police work seeks out the least to the most traumatic events that occur to humans. And, after months or years of frequent exposure, it is reasonable to conclude that police officers unconsciously minimize their empathy and human compassion. Research suggests that this is accurate because empathy and compassion will facilitate emotional commitment or attachment to other people (Binswanger, 1955 cited in Frie, 2010). The Dalai Lama (1998) indicated that a compassionate person will develop a strong commitment to assist others who suffer. Therefore, police minimization of empathy and

compassion is more than likely done to avoid getting caught up in dealing with victims' emotional traumatic experiences (Thompson & Waltz, 2008) and sensitive needs (Frie, 2010).

Secondly, police officers develop compassion fatigue. For the purpose of this research, compassion fatigue is described as the negative consequences of interacting with traumatized victims and vicariously experiencing the effects of their traumatic life events (Harr & Moore, 2011). Police officers are similar to other helping professions who are subjected to compassion fatigue. The effect of traumatic events can be disruptive and distressing to police officers, last a long time after involvement with the victim, and lead to poor emotional and psychological health over time (Huggard & Dixon, 2011).

Research has linked a decrease in work productivity and higher usage of sick leave to helping professionals who suffer from compassion fatigue (Sammartino, 2012). As reported earlier, Badger and Craig (2008) found that indirect exposure to trauma may cause a person to suffer from negative mental health issues. Therefore, it is reasonable to conclude that police detectives will more than likely suffer from negative mental health issues as a result of indirect exposure to traumatic events and/or images. These negative symptoms include physical health concerns, interpersonal relationship issues, job dissatisfaction, modification in cognitive schemas (i.e. view of self, world, and others) (Tyson, 2007), and – in the cases specifically for uniformed police officers – issues with police brutality and a high volume of citizen complaints.

Compassion fatigue or vicarious trauma contributes to police suicides and incidents of police brutality. It was concluded that, in the past 25 years, at least five police officers who committed a homicide and/or suicide was due to their powerlessness or lack of

coping skills to engage their mental health distress (Grover et al., 2009). Police officers dealing with depression or stressors leading to feelings of helplessness and hopelessness are more susceptible to commiting suicide and/or homicide (Miller, 2005). In other words, police officers who do not practice self-care or fail to control work stressors are more susceptible to compassion fatigue than others (Harr & Moore, 2011).

Most police officers' involvement in alleged police brutality complaints was due to their inability to handle their professional and personal life stress. According to Sadeh, Javdani, Finy, and Verona (2011), violence is associated with the basic emotional and cognitive processes of anger and hostility. The main emotional cause of violent behavior is a person's inability to effectively process anger and aggression (Chereji, Pintea, & David, 2012). Not only does the harmful consequence of continous exposure to violence decrease empathy (Bartholow, Sestir, & Davis, 2005), it also increases aggressive behaviors and aggressive thoughts in police officers.

After each response to a call for service, police officers become more distrustful and paranoid because they cannot predict what circumstances might lead to an attack (Johnson, 2011). As a result, police officers will become more aggressive. It is hypothesized that excessive force statistics are leading the percentage for police misconduct complaints. The 2010 National Police Misconduct Statistics and Reporting Project indicated that approximately 6,613 law enforcement officers were involved in allegations of misconduct, of which 1,575 or 23.8% of the complaints against police officers were about excessive force (Packman, 2011). These statistics support the hypothesis that police brutality or excessive force ranks among the highest complaints for police officers.

Thirdly, police officers do not acknowledge or realize that they may have compassion fatigue or loss of cognitive empathy. Police officers are responsible for the preservation of social order, saving lives, and the enforcement of the laws in society (Alemika, 2009). These responsibilities present police officers with the opportunity to interact with people from all social economic statuses. Police officers have to deal with their personal issues that life offers (i.e. marital problems, family conflict, financial crisis, etc.) and the traumatic memories that follow the frequent exposure to violent or traumatic events. This combination intensifies the development of compassion fatigue (Sprang, Clark, & Whitt-Woosley, 2007).

Police officers exhibit compassion fatigue through a display of emotional numbing, dreading coming to work (i.e. no pending medical conditions or simple malingering). Research suggests that if police officers increase their knowledge on the impact of mental illnesses, they will develop more empathy and less stereotyping (Hanafi, Bahora, Demir, & Compton, 2008) about their personal mental health. It is reasonable to conclude that police officers who internalize distressing symptoms and refuse to seek mental health treatment will externalize negative behaviors.

Fourthly, police officers who internalize psychological distressing symptoms display negative behavior towards family members. The frequent exposures to violence and traumatic experiences have an effect on a person's physical health, mental health, social functioning, and interpersonal relationships (Hedtke et al., 2008; Nietlisbach & Maercker, 2009). Police officers typically deny or minimize the emotional impact of traumatic or violent events that cause overcontrolled hostility (Murphy, Taft, & Eckhardt, 2007). The present study will reasonably conclude that police officers encountering

stressful events increase their opportunity to engage in acts of physical aggression toward family members. Research indicated that involvement in aggression is associated with negative social consequences (Pickett, Iannotti, Simons-Morton, & Dostaler, 2009).

Assaults on family members by law enforcement officers are an increasing and universal problem. In South Africa, acts of aggression are frequently used to achieve goals and resolve conflicts within the family system (Njuho & Davids, 2012). In the United States, aggressive and violent behaviors are excessively high (Jenson, 2007). Police officers are 10 times more likely to be involved in a domestic assault than the general population (Edwards, 2006). The culture of law enforcement shields most police officers' assaults on family members by not reporting, reporting but not filing charges, or filing charges but allowing dismissals in court. After the O. J. Simpson murder case (i.e. June, 1994), governmental changes to arrest policies involving family violence reduce the discretion of police agencies and increase the liabilty of the court system (Jasinski, 2003).

Long term mental health issues. Next, there are the long-term mental health (i.e. internalization and externalization) concerns of police officers' frequent exposure to violent or traumatic events and/or images. It is reasonable to conclude that police work is the most psychologically dangerous job (Husain & Sajjad, 2012). This occupation subjects police officers to repeated exposure of different types of traumatic and violent events or images. Ultimately, police officers leave the job via retirement, resignation, or involuntary termination.

Tuohy, Knussen, and Wrennall, (2005) conducted a study with 1,334 retired male Scottish police officers (34–94 years old). They found that police officers who retired (i.e. 47 - 62 years of age) and those who worked after retiring were less likely to develop

depression than police officers who retired early and did not seek employment. It is reasonable to conclude that when police officers leave their police careers, they continue to carry the emotional baggage resulting from the FETVEI. This exposure increases the risk of police officers developing long term psychological and physiological consequences (Lauvrud, Nonstad, Palmstierna, 2009; Chopko, 2010) such as PTSD, depression, substance abuse, suicide, hypertension or other medical issues, in addition to employment and marital problems.

Posttraumatic stress disorder (PTSD). According to the Diagnostic and Statistical Manual of Mental Disorders 5th Edition (2013), PTSD criteria include a history of exposure to a traumatic event that meets specific stipulations and symptoms from each of four symptom clusters: intrusion, avoidance, negative alterations in cognitions and mood, and alterations in arousal and reactivity. The sixth criterion concerns duration of symptoms; the seventh assesses functioning; and, the eighth criterion clarifies symptoms as not attributable to a substance or co-occurring medical condition.

PTSD is a common disorder with a lifetime prevalence affecting approximately 8% to 9% of people (Panagioti, Gooding, & Tarrier, 2009); however, due to police officers' FETVEI, approximately 12 % to 35 % of police officers meet the diagnostic criteria for PTSD at any given time (Maia et al., 2011; Javidi & Yadollahie, 2012). This occurs because most officers use compartmentalization or repression to cope with memories related to experiences with trauma and violence. As result, these traumatic and violent memories are left untreated. Javidi and Yadollahie (2012) reported that the dissociation from traumatic memories is a coping strategy that leads to the development of PTSD. Furthermore, dissociation, repression, and compartmentalization are psychological terms

for merely saying “my coping strategy is to avoid psychological distressing thoughts.” Avoidance causes police officers to lose their human compassion and enable other mental health problems (Sautter, Armelie, Glynn, & Wielt, 2011).

Seeking mental health treatment is a barrier. A lack of trust towards mental health workers, and job security are barriers for police officers. These barriers are vital to why law enforcement officers do not seek mental health services and they lead to a delayed onset of PTSD (Horesh, Solomon, Zerach, & Ein-Dor, 2011).After leaving the job, some police officers seek mental health services, whereas others remain in denial or do not seek mental health services for symptoms of PTSD. PTSD is not the only mental health problem. Research by Drescher, Rosen, Burling, and Foy, 2003) found that depression, alcohol abuse, and increased health risks for cardiovascular disease are associated with PTSD.

Depression. According to the DSM-V (2013), depressive symptoms can last 4 months or longer if untreated. Individuals with depression may have difficulty in intimate relationships, sleep difficulties, diminished ability to concentrate/think, loss of energy, and less satisfying social interaction. The DSM V indicated that these difficulties can lead to marital problems, occupational problems, academic problems, alcohol/substance abuse, and increased use of medical services. They can also put the individual at risk of suicide. Although depression is a common diagnosis of working people, it is not uncommon to see a dual diagnosis of depression and PTSD (Kleim, Ehlers, & Glucksman, 2012). Police officers exposed to traumatic situations commonly experience long-lasting downheartedness, remorse, feelings of withdrawal, and irritability (as cited in Chopko, 2010; Violanti et al., 2011). However, some police officers minimize these

feelings and continue to function in situations of conflict, face hostile and non-hostile people, and deal with the unavoidable political pressure of being a police officer.

According to the World Health Organization (2012), depression is a leading cause of disability worldwide because it impairs a person's cognitive, occupational, interpersonal, and health functioning. Less than 10% of the people in the world suffering from depression will seek therapy. Violanti et al. (2009) reported that depression exists in approximately 18.7% of police officers in comparison to 5.2% of the general population. Depression has a stigma attached, and most police officers will not acknowledge symptoms of depression or seek mental health treatment for depression. Therefore, it is reasonable to conclude that a failure to seek therapy increases the chances of depression leading to suicide.

Police officers who internalize symptoms of depression are at risk for loss of cognitive empathy. The memories from FETVEI will remain with police officers, causing them to recall more tragedies and traumas than ordinary citizens. Compassion is an internal tool that compels police officers to cope with trauma and continue to engage different people (Madden, Duchon, Madden, & Ashmos-Plowman, 2012). Avoiding mental health services will prevent police officers from showing empathy towards victims of non-violent or violent crimes (Woody, 2006). Foley and Terrill (2008) indicated that the way police officers interact with a victim can impact the victim's recovery. Their study suggested that police officers with high emotional content, compassion, and sympathy promoted increased victim satisfaction towards the criminal justice system.

Substance abuse. In the United States, police officers' alcohol intake is more dangerous and destructive than that of the general population (Swatt, Gibson, & Piquero, 1997). Alcohol impairs a person's cognitive empathy (Maurage et al., 2011), and the use of alcohol and other illegal substances are a significant problem within law enforcement. In 1999, the Boston police department started an annual drug testing; as a result, they reported that 75 officers have failed the drug tests (Smalley, 2006). It was revealed that after FETVEI, several police officers may not display external distressing symptoms; however, they may be internalizing by consuming alcohol or drugs (Leino, Eskelinen, Summala, & Virtanen, 2011). Therefore, it is reasonable to believe that some police officers make poor decisions by using alcohol to cope with stress.

Work related stress is a major contributor to police officers using drugs and alcohol to relieve stress. Davey, Obst, and Sheehan (2000) found that a significant number of Australian police officers were at risk for alcohol consumption during duty hours. Their research reported that 25% of the 4,193 officers who participated in the study admitted to drinking while in a duty status. It was discovered that alcoholism is enabled by police parties at police clubs/lodges, in which alcohol is the centerpiece for conversation (Beehr, Johnson, & Nieva, 1995). Lindsay and Shelley's (2009) study asked 1,328 police officers, "Why do you drink?" And the most frequent suggestion was "trying to fit in with the other police officers." Police officers drink together to reinforce their police culture values (Davey, Obst, & Sheehan, 2001). As a result, the "police culture" and "code of silence" make it hard for police officers to admit having an alcohol or substance abuse problem. Furthermore, accurate statistical data is hard to find because police

officers do their suffering in silence or associate with others who enable the behavior (Violanti et al., 2011).

Suicide. Police suicides are linked to police officers' access to firearms (Johal, Lippmann, Smock, & Gosney, 2010), frequent exposure to trauma and violence (Krysinska, Lester, & Martin, 2009; Shay-Lee, Stein, Asmundson, & Sareen, 2009), mental health issues (Davis, Witte, & Weathers, 2013), shift work (Violanti, 2012; Violanti et al., 2008), internal affair investigation and legal issues (Clark, White, & Violanti, 2012) and problems such as social isolation, lack of community/organizational support, and public distrust (Woody, 2006). Suicide is the act of purposefully terminating your own life, whereas suicidal ideation is simply the thought of terminating your own life. Assessing suicide is a difficult task for all mental health workers (Gagnon et al., 2009). The suicide of a police officer distresses the police officers' family and friends. Police officers have an increased risk of suicide because of their FETVEI. The stress of trauma can induce substantial symptoms of psychological distress in anyone. Most police officers do not seek psychological treatment for stress related injuries, even if the stress is causing suicidal ideations (Mishara & Martin, 2012; Berg, Hem, Lau, & Ekeberg, 2006). If a police officer experienced suicidal ideations prior to becoming a police officer, it would be unknown because that information is difficult to uncover. In other words the probability of reporting past suicidal ideations and attempting to become a police officer will lessen the opportunity of gaining employment as a police officer.

The Center for Disease Control and Prevention (2009) ranked suicides as the number 10 cause of death in the United States. There were 126 police suicides in 2012, 143 in 2009 and 143 in 2008; and nationally, statistics suggest that approximately 125 -

150 police officers commit suicide each year (Clark & O'Hara, 2013). These numbers could be higher because police officers suicides are often misclassified as accidental (Clark, White, & Violanti, 2012). However, following a police officer suicide Clark and O'Hara reported police departments suggest the cause of suicide was due to the officer having family problems or personal difficulties.

There are approximately 38,000 suicides per year in the United States (CDC, 2009). This statistic suggest a police officer suicide is happening every 253 suicides; therefore, it is reasonable to conclude that per capita, police occupation is at the top of the list for either most dangerous job or most stressful job. Police officers are three times more likely to kill themselves versus being killed by a criminal in the line of duty (Dempsey & Forst, 2013). Male police officers occupy 91% of the suicide rate and female police officers occupy 9% (Aamodt & Stalnaker, 2006). In the general population 79% are male and 21% are female. It was also found that 95% of police officers who commit suicide use a firearm (Violanti, 1996); and Aamodt and Stalnaker suggested 37% of the police officers who commit suicide with a firearm use their police issued weapon. A study in Austria found that between 1996 and 2006, 91 police committed suicide, and only one was a female (Kapusta et al., 201). It is easy to conclude that male police officers are at a higher risk of suicide; however, one must keep in mind that law enforcement is a predominately male occupation.

The cognitive process of suicidal ideations to suicide can last from several minutes to several months. Suicidal ideations usually start when a person is overwhelmed by distressing psychological symptoms (life stressors). He or she is unable to think of appropriate coping resources to overcome the stress (Richard-Devantoy, 2012). Police

officers' FETVEI suggests "no letting up" of the stress. It has been reported throughout this research project that the FETVEI can cause anxiety disorders (PTSD), depression, aggression, and substance abuse. Nepon, Belik, Bolton, and Sareen's (2010) research reported that 34,653 assorted people in the United States reflected a connection between PTSD and suicide attempts. Additionally, other research associated depression to suicide or suicide attempt (Greenberg, Tesfazion, & Robinson, 2012; Davidson, Wingate, Grant, Judah, & Mills, 2011; Lamis, Malone, Langhinrichsen-Rohling, & Ellis, 2010).

Research indicated that aggression (i.e. anger, poor response to stress, and inability to control behavior/frustration) is associated with suicide or suicide attempts (Conner, Swogger, & Houston, 2009). A study conducted by Koller, Preuss, Bottlender, Wenzel, and Soyka (2002) determined that people who attempted suicide were hostile, emotionally unstable, or had increased impulsivity. Finally, substance related disorders were reported as the most recurrent psychiatric disorders found in suicides (Schneider, 2009). It was revealed that 18.8% of suicides are completed by overdose versus alcohol (Sinyor, Howlett, Cheung, & Schaffer, 2012).

Hypertension and other medical issues. Police work is a stressful occupation that contributes directly to causes of cardiovascular disease (Scott-Storey, Wuest, & Ford-Gilboe, 2009), insomnia, increased levels of destructive hormones (University at Buffalo, 2008), and dysregulation in the nervous system (Kendall-Tackett, 2009). From January 2013 to the end of July 2013, nine police officers had line of duty death resulting from heart attacks (Johnson, 2013). The job description of law enforcement requires police officers to work day shift, evening shift, and/or midnight shift. Research continues to explore the effects of shift work on police officers' medical health. Violanti et al. (2009)

conducted a research study at a midsized urban police department with 115 randomly selected officers from a total force of 934 police officers. They found that police officers who worked the midnight shift had shorter sleep duration and, when combined with overtime, the effect contributed to police officers having issues with cholesterol, hypertension, larger waistlines (obesity), glucose intolerance (diabetes), and high levels of triglycerides (thickening of the artery walls). All of these medical concerns put police officers at risk of heart disease, diabetes, and stroke.

Police officers are also subjected to environmental hazards. Police officers' exposure to environmental hazards when making an arrest, basic investigations, or transportation of suspects or property may subject them to short or long term medical health issues (VanDyke, Erb, Arbuckle, & Martyny, 2009). Ross and Sternquist (2012) reported that roughly 150 Utah police officers who worked methamphetamine lab investigations developed chronic illnesses that lead to some police officers being disabled. Researchers found that exposure to methamphetamine labs can cause bronchitis, asthma, vocal cord dysfunction, reactive airways disease, lung fibrosis, and eye/skin irritation (Vito, Higgins, Walsh, & Vito, 2012; Witter, Martyny, Mueller, Gottschall, & Newman, 2007). A study by Ayadi and Zigmon (2011) revealed that exposure to methamphetamine causes neuronal cell death associated with several neurodegenerative disorders (e.g. Parkinson disease, Alzheimer's disease, and Huntington's disease). There is a long list of the hazardous materials that police officers may be exposed to; therefore, it is always a best practice to use protective gloves when handling prisoners and their property.

Summary

A major recurring theme in the literature is that police work is a stressful occupation, which involves the exposure to violent and/or traumatic events or images. A second recurring theme is that police officers retain memories resulting from the FETVEI for the duration of their lives. Stressful memories contribute to mental health issues and cognitive empathy changes in police officers. Thirdly, mental health professionals have been researching topics related to the effects of frequent exposure to violence and trauma for the past 100 years. However, when it involves police officers, information is limited because the law enforcement culture shields itself from outsiders attempting to obtain information that is harmful to a police officer's career.

A fourth recurring theme is that police officers who internalize stress and fail to seek mental health services have a higher probability of becoming unstable and vulnerable to cognitive, physiological, and psychological problems. As a result, many police officers may go undiagnosed or underdiagnosed for mental and physical health problems that are preventable. Next, police officers' exposure to violence or trauma is much greater than that of other occupations. We live in a world in which people are always violating criminal and traffic laws. Therefore, police officers are frequently responding to traumatic scenes in an effort to minimize harm to members of the free society. This frequent exposure combined with the nature of police work will cause police officers to become less compassionate towards people (compassion fatigue).

This leads to the final recurring theme, that psychological damage of frequent exposure to violence and trauma is not new research for mental health professionals. This trauma related research dates back to the Vietnam era. FETVEI subjects police officers

to compassion fatigue, PTSD, depression, substance abuse, suicide, over-aggressive behaviors, hypertension or other medical issues, in addition to employment and marital problems as a result of the frequent exposure to violence and trauma.

Comprehensive Knowledge in Policing

This study fills at least one of the gaps in the literature and will extend knowledge in the field of police work. A gap for this research is the lack of availability for empirical information or case studies on how FETVEI affects police officers' cognitive empathy or human compassion. There is an unspoken and undocumented "code of silence" with police and military organizations. If you are not within the police circle (i.e. police member or family member), information that can damage or end a police officer's career is consider protected information. Therefore, it may be somewhat difficult for someone not within the circle of either organization to gain access to individually protected information. The study will attempt to fill this gap because this researcher has open access to current police officers who are volunteering to assist with the research. The research is being conducted by a retired police officer, and it is anticipated that participating police officers will trust that this retired officer understands their daily dilemmas of working as a police officer.

CHAPTER 3: Research Methods

Introduction

In chapter 2, research indicated that police work is a stressful occupation which involves the frequent exposure to dangerous and traumatic events. Police officers are exposed to more traumatic events than most citizens will encounter in a lifetime (Anderson & Lo, 2011).The memories of the traumatic event do not end when police officers leave the scene and return to patrol duties. They have to cope with traumatic memories, as well as mentally prepare for the unpredictable future trauma scenes in which they will render assistance (Versola-Russo, 2005). There is a growing concern for how police officers' human compassion is affected by the frequent exposure to traumatic events. Police officers internalize a variety of mental health symptoms, which puts them at greater risk of externalizing maladaptive behaviors. In summary, this research project hypothesized that police officers' frequent exposure to traumatic stressors contributes to mental health issues and cognitive empathy changes.

This chapter provides an explanation of the design, sample, instrumentation, data analysis, and ethical considerations of this research study. The purpose of this research study is to examine the relationship between police officers' frequent exposure to traumatic events and the untreated psychopathology and loss of cognitive empathy/human compassion in police officers (to include males and females). The dependent variables in this research are police officers' cognitive empathy/human compassion, police officers' internalization of distressing psychological symptoms, and police officers' externalization of distressing psychological symptoms.

The independent variable in this research is the police officers who are frequently exposed to traumatic or violent events/images. The study provide evidence of a relationship between police officers' frequent exposure to traumatic events, the internalization of psychological distressing symtpoms, and the display of mental, physical, and behavioral outcomes. The data was gathered through two standardized psychological assessments (i.e. Trauma Symptom Inventory 2A & Paulhus Deception Scale) and two credible checklists (i.e. JHU Project Shields Questionnaire & Compassion Scale) with good validity. These data sets was analyzed through a linear regression to determine if there is a significant correlation between the FETVEI, internalization of psychological distressing symptoms and the externalization of psychological, physiological, or behavioral outcomes.

Research Design and Rationale

The study used a quantitative method. The goal of this study was to collect self-reported and statistical data to explore the independent and dependent variables. A linear regression was used to acquire accurate information from the research questions. This predictive model provided information to determine if there is a relationship between the variables of interest. Descriptive statistics were used to collate and report the demographics and salient factor questions from the JHU Shields. The quantitative method was best because it assessed the combined effect of exposure to traumatic/violent events and images on police officers' cognitive empathy/human compassion. As a result, this research can be replicated due to its ability to investigate the connection between variables through closed ended questions, use of structured approaches, and use of statistical procedures (Creswell, 2009). It also facilitated the running of various scales

and comparing those against others continuous numbers. The research allowed for the collection of data from male and female police officers in the City of Norfolk. To date, this is the only research applied to the police culture using the combination of listed scales from the selected assessments. Also, the design required the researcher to collect data from active police officers, which included those that worked shifts and rotated workdays.

Methodology

Sampling Procedures

Sample recruitment took place during roll call or in the break-room at each of the Norfolk Police Department's three precincts, Investigation Division, and Headquarters. Police Officers completed the questionnaires within four to seven days of receiving them. Police officers rotate shifts and days off; therefore, no systematic bias attributed to shift or days off, and the demographics of the achieved sample was statistically similar to the overall police population.

Procedures

Participants and Data Collection. The population consisted of active police officers (both women and men) from the Norfolk Police Department. All participants were volunteers who provide law enforcement services to approximately 243,000 residents of Norfolk, Virginia. The department serves three different precincts and covers approximately 96.3 square miles of urban city. The department had approximately 786 police officers on payroll at the time of the study. A priori power analysis was conducted within the parameters of an effect size of 0.5 and a power of 0.80. A total sample size of 65 subjects was required to meet these criteria. Norfolk Police Officers are primarily

Caucasian (approximately 61%) and male (85%). Approximately 15% of the police officers are female, and less than two thirds of these women are members of racial/ethnic minority groups. Overall, minority personnel represent approximately 39% of the police department workforce. It was suggested in the long term the minority representation number will decrease due to a smaller number of minorities entering the police academy (P. Dixon, personal communication, August 16, 2014). All police officer either worked in one of the three precincts, detective division, or at headquarters in a total of five distinct police department buildings located throughout the city. It is estimated that 500-525 police officers work within a 24 hour day. Most sworn employees are uniformed patrol officers or detectives, followed by corporals, sergeants, lieutenants, captains, assistant chiefs, and 1 chief of police.

The sampling strategy involved: (1) obtaining the number of sworn employees at each precinct at each shift, (2) attending one or two roll calls for each shift at each precinct to obtain a convenience sample of volunteers, and (3) distributing questionnaires to all officers volunteering to complete the questionnaire (minimum 65 officers). Upon completing the questionnaires, the police officers placed the completed questionnaires in the provided sealed envelope and drop it in the open slot of a secured drop-box located in the roll-call room. The researcher checked the drop boxes every Monday, Wednesday, and Saturday for approximately 3 months until 66 completed packets were collected. Additionally, the research did require an individual debriefing for police officers because the questionnaires are anonymous. At any time during the testing process, all law enforcement volunteers could refuse to participate in the research project by not answering the questions or not returning the questionnaires to the drop-box.

The Norfolk Police Department Chief of Police granted written and verbal permission to conduct the research with an understanding that all results and conclusions are shared with his administrative staff and all participants. Therefore, upon completing the research, the researcher will return to the Norfolk Police Department for a debriefing with the Chief of Police, his staff, and police officers who participated in the research (debriefs will be conducted for the different police precincts at the request of the Chief of Police).

Instrumentation and Operationalization of Constructs

In this study, four questionnaires were used, one of which asks basic demographic questions. The Johns Hopkins University Project Shields Questionnaire (Appendix C), the Trauma Symptom Inventory-2A (not included in the appendix section due to copyrights infringement), the Paulhus Deception Scale (not included the appendix section due to copyrights infringement), and the Compassion Scale (Appendix D) was given to each of the participants.

Johns Hopkins University Project Shields Questionnaire. The Johns Hopkins University Project Shields Questionnaire (Gershon, 1998, September) is a 132-item survey instrument. Gershon gave permission to use her questionnaire; the only stipulation was that data from this scale is shared with her for future research. The assessment included questions on psychological and physical stress and likely stressors, perceived current stress level, mechanisms used to cope with stress, and health conditions related to stress. The 132-item questionnaire was prepared at a 10th grade reading level to facilitate its rapid completion. Furthermore, the questionnaire was guided by qualitative data generated through in-depth interviews, focus groups, and cognitive testing procedures.

Also, while constructing the JHU assessment, Gershon used preexisting and well characterized assessment with good validity and reliability. Control variables in this study will include gender, race, education level, and length of employment as a police officer. Gender and race will be dummy-coded: (1 = male, 2 = female) and (1 = nonwhite, 2 = White). Education level reflected the highest level of study that a respondent reported completing and was treated as a frequent variable: 1 (high school), 2 (some college), 3 (college graduate), and 4 (graduate school). Length of employment as a police officer will be treated as a frequent variable, reflecting the participant's report of years as a sworn Norfolk police officer. Current rank will be also treated as a frequent variable and categorized as 1 = police officer/detective and 2 = police officer supervisor).

The questionnaire measures the following items in police officers after frequent exposure to stressful events: Stress; Coping Strategies; Stressors; Psychological Outcomes; Physiological Outcomes; & Behavioral Outcomes. Response choices for the various scales were either: 0 (*never experienced)*, 1 (*not at all*), 2 (*a little*), and 3 (*very much*); 1 *(never*), 2 (*sometimes*), 3 (*frequently*), and 4 (*always*); 1 (*yes*) and 2 (*no*); or 1 (strongly agree), 2 (agree), 3 (neither agree/disagree), 4 (disagree), and 5 (strongly disagree).

The Trauma Symptom Inventory-2A (TSI-2A). The TSI was created in 1995 from a 1990 United States census (Briere, 2011). The TSI was developed to identify issues with prolonged and severe symptomology relating to posttraumatic injuries. The assessment consists of 100 questions in which the respondent frequency of behavior is answered using a rating from 0 – 3 with reporting never (0), seldom (1), sometimes (2), and often (3). The raw scores are generated by a computer program and given T-scores

that range from 35 to 100. A clinical significant T-score is 65 and higher. The assessment includes 10 scales measuring various forms of clinical psychopathology related psychological trauma and three validity scales to assess the respondent's test-taking attitude (e.g. underreporting, overreporting, and inconsistency). Alphas ranging from .84 to .87 suggest the TSI demonstrated adequate internal consistency.

In 2011, the TSI was revised to create the TSI-2 and TSI-2A. The respondent's answering selection did not change after the revision. There were three new scales (e.g. Insecure Attachment, Somatic Preoccupations, and Suicidality) and two subscales (Anxious Arousal-Hyperarousal, and Impaired Self-Reference-Other Directed added to the newer version. In order to better evaluate misrepresentation of PTSD the revision included changes to the Atypical Response scale. Eighty-seven items have been either re-written or new to the TSI-2.

The differences between the TSI-2 (136 questions) and TSI-2A (126 questions) are the questions per test and the TSI-2A contains no sexual symptom items. The TSI-2A is designed to evaluate posttraumatic stress and other psychological concerns of traumatic events, including the effects of intimate partner violence, combat, torture, motor vehicle accidents, mass casualty events, medical trauma, traumatic losses, and childhood abuse or neglect. This researcher contends that this version is most appropriate because there may be personal reasons for which the police officer taking the assessment may elect to avoid or be deceptive about sexual related questions. The clinical scales of the TSI-2A measure the extent to which the test taker endorses 11 different types of trauma-related symptoms, five of which also have subscales. The new version has two validity scales, 12 clinical scales, 12 subscales, and four factors.

The TSI-2-A provides good reliability and validity due to consistent sampling across studies. It was standardized from a sample based on the United States population for men and women between 18 and 90 years of age. Test content may be reproduced and used for non-commercial research and educational purposes without seeking written permission. Additionally, the TSI-2A was written at the fifth to seventh-grade level. Studies indicate that specific TSI-2 scale elevations are associated with a wide variety of traumatic experiences. Because certain scale and subscales scores are likely to be elevated in the same individual. PTSD has a lifetime prevalence of approximately 8% in the general population; however, individuals (e.g. to include police officers) exposed to extremely stressful events can have rates as high as 30 to 60%.

The TSI-2/TSI-2A has factors, scales, and subscales that assist clinicians in measuring test takers' various levels of traumatic distress (table 1). First, there are two validity scales which measures underreporting and overreporting psychological trauma. Next, the TSI-2A has four factors which measures inadequate self-awareness, self-destructive behaviors when stressed, dissociation, posttraumatic stress, and bodily aches (table 2). Thirdly, there are scales which measures anxiety, somatic symptoms of depression, angry behaviors, reliving symptoms of posttraumatic stress, avoiding of upsetting memories, derealization, complaints of bodily pains, sexual problems, suicidal ideations, insecurities, difficulties in assessing identity, and ways to avoid internal distress. Finally, there are subscales which measures anxiety, generalized somatic complaints, problematic sexual behaviors, suicidal behaviors, rejection in relationships, and over-evaluation of others view (see table 2).

Eight questions on the TSI-2A have been identified as having special clinical importance. If critical items are endorsed with a score of 1 or higher should be considered clinical significant and warrant further inquiry (Table 3).

Paulhus Deception Scale (PDS). People respond to questionnaires: accurate, negative and/or overly positive. The PDS is a 40-item self-report instrument designed to measure deceitfulness and socially desirable responses (Paulhus, 1998). The test takes approximately 7 minutes or less to complete; however, there is no time limit. The items on the assessment are rated 1 through 5, indicating the degree to which each statement applies to the respondent. The assessment is invalid if more than 5 items are omitted; however, if 1 to 5 items are omitted the assessment is valid. The PDS was standardized in the general population, college students, prison inmates, and military recruits in the United States and Canada. The Cronbach's Alpha suggests highly satisfactory internal reliability has been found for the PDS. Additionally, a reliability analysis was conducted on the PDS using the Dale-Chall formula (as cited in Pauhlus, 1998). The result indicated the assessment can be confidently administered to respondents' age 16 years or older. The assessment was proven to have adequate convergent validity, face validity discriminant validity, and structural validity. Test content may be reproduced and used for non-commercial research and educational purposes without seeking written permission

The PDS has two scales called Impression Management and Self-Deceptive Enhancement (Paulhus, 1999). The Impression Management Scale (IM) measures hypersensitivity to situational self-presentation demands by inflating self-descriptions and engaging in purposeful faking or lying. The IM scale has been correlated with other

assessment scales such as the MMPI Lie (L) scale and the L scale of the Eysenck Personality Inventory (Lanyon & Carle, 2007). The second scale, Self-Deceptive Enhancement (SDE) measures the tendency to give honest but inflated self-description, and reflects an unconscious favor ability bias characterized by a pervasive lack of insight. The PDS provides a summary score, which represents a socially desirable response or a favorable self-presentation. If the IM score is above the cutoff score of 70 or below the cutoff score of 30, the data from the other assessments in the packet should be interpreted with caution.

The Compassion Scale. The Compassion Scale is a 24 item test, appropriate for ages 14 and higher and at least an 8th grade reading level. The Compassion Scale (Pommier, 2011) was developed using a Buddhist conceptualization and definition of compassion adopted from Neff's (2003) model of self-compassion that proposes that the construct entail kindness, common humanity, and mindfulness. Police officers will be asked to rate each item using a 5-point Likert-type scale with a total of 120 points. The scale is separated into "1-Almost Never; 2-Occassionally; 3-About Half the time; 4-Fairly Often; & 5-Almost Always". The average overall compassion scores tend to be around 3.0 on the 1-5 scale. As a guide, a score of 1-2.5 for overall compassion score indicates the respondent is low in compassion, 2.5-3.5 indicates moderate compassion, and 3.5-5.0 means high compassion. Mean scores and other descriptive statistics were calculated for each subscale. On the individual coded subscales, a score of 4 - 12 suggests high compassion, and a score of 13 - 20 suggests low compassion. Cronbach's alpha for the Compassion Scale was .90. Test content may be reproduced and used for non-commercial research and educational purposes without seeking written permission.

Research Hypotheses

The principal component being studied was whether there was a correlational relationship between police officers' frequent exposure to violent and traumatic events and the untreated psychopathology and loss of cognitive empathy/human compassion in police officers (i.e. includes males and females). There were four psychological assessments used to predict the expected outcome. For each of five hypotheses, an individual linear regression will be conducted to assess the relationship between the independent and dependent variables. Additionally, there are scales on the different assessments that may or may not be elevated above normal range. If a scale elevation is found to be statistically significant, the serendipitous findings will be discussed.

Research Hypothesis 1: Police officers that score high on the Defense Avoidance scale of the Trauma Symptoms Inventory 2-A (TSI 2-A) will also score high on the Tension Reduction Behavior and Intrusive Experiences scales of the TSI 2-A.

H_1: Police officers with this pairing of high scales scores will have an onset of various distressing psychological symptoms and are likely to display maladaptive behaviors such as hyper-aggression and violence, substance and alcohol abuse, suicide, and domestic violence.

H_0: Police officers with a pairing of low scales scores will not have an onset of various distressing psychological symptoms and are not likely to display maladaptive behaviors such as hyper-aggression and violence, substance and alcohol abuse, suicide, and domestic violence.

Research Hypothesis 2: Two factors (Posttraumatic and Externalization) from the TSI-2A will reveal the strength of trauma and stress within the police culture. If so, it is

anticipated that there will be statistical significant elevated scores when compared to test norms.

H_1: This will be indicative of the extent of trauma and dysfunctional behaviors within this population sample. Those who score high on these scales will exhibit significant levels of trauma and stress and dysfunctional and self-destructive behaviors.

H_0: This will not be indicative of the extent of trauma and dysfunctional behaviors within this population sample. Those who score low on these will not exhibit significant levels of trauma and stress and dysfunctional and self-destructive behaviors.

Research Hypothesis 3: The JHU Shield Questionnaire will reveal police officers work stress that will affect their work attitude, the general public, their coping strategies, physical health, behavior, and family.

H_1: These results will support the theory that frequent exposure to stress, trauma, and violence will affect police officers' work attitude, the general public, their coping strategies, physical health, behavior, and family.

H_0: These results will not support the theory that frequent exposure to stress, trauma, and violence affect police officers' work attitude, the general public, their coping strategies, physical health, behavior, and family.

Research Hypothesis 4: Police officers that self-report exposure to stress and traumas are likely to suffer from compassion fatigue, as measured by a high score on the Compassion Scale.

H_1: When looking at the Compassion Scale findings, it will reflect police are likely to suffer from compassion fatigue.

H_0: When looking at the Compassion Scale findings, it will reflect police are not likely to suffer from compassion fatigue.

Research Hypothesis 5: The Paulhus Deception Scale will provide support for the idea that police officers will score within normal range on the self-deceptive enhancement and impression management scales.

H_1: Police officers used in the sampling population for the research will score within the normal range on the self-deceptive enhancement and impression management scales and will not skew the research data.

H_0: Police officers used in the sampling population for the research will not score within the normal range on the self-deceptive enhancement and impression management scales and will skew the research data.

Ethical Procedures

The American Psychological Association's (2002) Ethical Principles of Psychologists and Code of Conduct indicated that researchers safeguard ethical treatment and protection of participants. The research took the necessary precaution to ensure that police officers could not be identified in the research results and other data sections throughout the dissertation. Participation was voluntary and nameless, which supports the data collection was anonymous and confidential. The participating police officers were informed of the nature of the study and given the choice to participate. There was not a foreseeable reason to withhold the true nature of the study from the police officers. The police officers were not offered any form of incentive to participate in the research project, refusal to participate involved no penalty, and they were not subjected to any undue physical or psychological harm.

The participants were not forced to comment on anything which they felt uncomfortable answering. Research participants had the right to discontinue for any reason by not returning their test package to the researcher's secured drop box (i.e. one drop box in each of three police precincts). The identifying information is general demographics (i.e. race, gender, and year of birth). All information provided by participants was used for the sole purpose of this research study and was kept secure and confidential. Access to all police officers was given by the Chief of Police prior to the start of research topic.

The assessments used by the participants were used for the exclusive purpose of this research study. The collected raw data from the police officers will be maintained in a secured file cabinet, and the electronic results will be stored on a password protected computer in a password protected file. All participants will benefit equally, as they will have access to an executive summary of the results and a summary of the dissertation upon completion. Additionally, participation in this study may advance future research on the effect of frequent exposure to violent and traumatic events or images on police officers. The raw data will be destroyed five years after the completion of the dissertation. The research design and ethical practices for this research study was approved by Walden University IRB and assigned approval number 10-23-14-0151994.

Summary

This chapter discussed the quantitative methods that were used to investigate the relationship between police officers' frequent exposure to traumatic events and its effect on their human compassion. The research questions and hypotheses were presented. Additionally, the discussion of the population and sampling methodology for the

quantitative analysis, the assessments, and the data collection were provided, along with the consideration of confidentiality.

Chapter 4 will describe and summarize the data analysis used to evaluate the research questions and hypotheses.

Chapter 4: Results

Introduction

The primary purpose of this research was to consider how frequent exposure to traumatic stressors contributes to mental health difficulties among police officers. Additionally, it will provide descriptive and correlational statistical information that will be useful in improving polices/procedures referencing the use of sick leave for mental health purposes, alcohol and substance abuse, problem solving, conflict resolution, stress management, and gender and racial equality. This chapter includes the data collection process, demographic characteristics of the sample, the statistical results of each research hypothesis presented in tables and graphs, and a summary of the findings.

Restatement of Research Hypotheses

This quantitative study was designed to answer the following five research questions:

Research Hypothesis 1: Police officers that score in the problematic or clinical range on the Defense Avoidance scale of the Trauma Symptoms Inventory 2-A (TSI 2-A) will also score in the problematic or clinical range on the Tension Reduction Behavior and Intrusive Experiences scales of the TSI 2-A.

H1: Police officers with this pairing of high scales scores will have an onset of various distressing psychological symptoms and are likely to display maladaptive behaviors, such as hyper-aggression and violence, substance and alcohol abuse, suicide, and domestic violence.

H0: Police officers with a pairing of low scales scores will not have an onset of various distressing psychological symptoms and are not likely to display maladaptive

behaviors, such as hyper-aggression and violence, substance and alcohol abuse, suicide, and domestic violence.

Research Hypothesis 2: Two factors (Posttraumatic and Externalization) from the TSI 2-A will reveal the strength of trauma and stress within police culture. If so, it is anticipated that there will be statistically significant elevated scores when compared to test norms.

H1: This will be indicative of the extent of trauma and dysfunctional behaviors within this population sample. Those who score high on these scales will exhibit significant levels of trauma and stress and dysfunctional and self-destructive behaviors.

H0: This will not be indicative of the extent of trauma and dysfunctional behaviors within this population sample. Those who score low on these will not exhibit significant levels of trauma and stress and dysfunctional and self-destructive behaviors.

Research Hypothesis 3: The JHU Shields Questionnaire will reveal that police officers' work stress affects their work attitude, coping strategies, physical health, behavior, family, and the general public.

H1: These results will support the theory that frequent exposure to stress, trauma, and violence affects police officers' work attitude, coping strategies, physical health, behavior, family, and the general public.

H0: These results will not support the theory that frequent exposure to stress, trauma, and violence affects police officers' work attitude, coping strategies, physical health, behavior, family, and the general public.

Research Hypothesis 4: Police officers that self-report exposure to stress and traumas are likely to suffer from compassion fatigue, as measured by a low to moderate score on the Compassion Scale.

H1: The Compassion Scale findings will reflect that police are likely to suffer from compassion fatigue.

H0: The Compassion Scale findings will reflect that police are not likely to suffer from compassion fatigue.

Research Hypothesis 5: The Paulhus Deception Scale will provide support for the idea that police officers will score within normal range on the self-deceptive enhancement and impression management scales.

H1: Police officers used in the sampling population for the research will score within the normal range on the self-deceptive enhancement and impression management scales and will not skew the research data.

H0: Police officers used in the sampling population for the research will not score within the normal range on the self-deceptive enhancement and impression management scales and will skew the research data.

Methods

Data Collection

The research was produced from the data obtained from assessments by active male and female police officers in the city of Norfolk, Virginia. From November 2014 through February 2015, participants were recruited via police roll calls and meetings in common areas (e.g. the break room, fitness center, and hallways). Participation was voluntary and anonymous, and the assessments' locked drop boxes were emptied (i.e. cleared of all

returned assessment packets) every two or three days. All assessment packets contained the JHU Shield Questionnaire, Compassion Scale, TSI 2-A, the Paulhus Deception Scale, and a Consent Form. Their acceptance of the consent form and completing an assessment packet indicated their willingness to participate. The minimum number of participants with completed packets needed for a viable sample was 65 police officers. The total number of Norfolk Police Officer participants in the study was 66 (N = 66). Within four weeks, 29 out of 150 assessment packets were collected, and during the next five weeks, 157 assessment packets were distributed, of which 37 were returned completed by police officers. Nineteen incomplete assessment packets were deposited in the drop boxes (i.e., some assessments were completed and some not completed). Assessments not completed were ruled as invalid and shredded, and those not used were reissued to voluntary study participants. A total of 307 assessment packets were disseminated among the First Patrol Division, Second Patrol Division, Third Patrol Division, and Detective Division, which suggests a response rate of 4.7 to 1. There were not any discrepancies in the data collection plan presented in Chapter 3.

Demographic characteristics of the sample

Of a total of 85 Norfolk Police Officers who turned in at least 1 completed assessment, 66 turned in completed assessment packets, and 69 turned in assessments that contributed to the demographic statistics of this research. The study results reflected 62 male police officers and 7 female police officers; 16 police officers submitted packets without identifying their gender. There were 48 Caucasian police officers, 14 African-American police officers, and 5 Hispanic police officers who participated in the study.

Additionally, there were 18 police officers who opted not to identify their race on the assessments.

Representative sample

Norfolk Police Department has an estimated 786 police officers. They are primarily Caucasian (approximately 61%) and male (approximately 85%). The results of the descriptive analysis of the random sample of participants reflected 69.6% Caucasian and 89.9% male. This statistical evidence suggests that this is a good representative sample of the population of interest.

Descriptive Statistics

As shown in Table 4, the majority of the participants were male (89.9%).

Table 4

Frequency and Percentages of Gender Categories

Gender	Frequency	Percentage
Male	62	89.9
Female	7	10.1
Total	69	
Missing	16	
Total	85	

As shown in Table 5, the most reported ethnic group was Caucasian (69.6%), followed by African-American (20.3%), and followed by Hispanic-American (7.2%).

Table 5

Frequency and Percentages of Ethnic Categories

Ethnic	Frequency	Percentage
African-American	14	20.3
Caucasian	48	69.6
Hispanic	5	7.2
Other	2	2.9
Total	69	
Missing	16	
Total	85	

The sample of study participants were asked their year of birth. As shown in Table 6, most participants were between the ages of 27–37 (42%), followed by an age range of 38–48 (26.1%).

Table 6

Frequency and Percentages of Participants' Birth Year Categories

Birth Year	Frequency	Percentage
Did Not Answer	1	1.4
1945 to 1955	2	2.9
1956 to1966	10	14.5
1967 to 1977	18	26.1
1978 to 1988	29	42.0
1989 to 1993	9	13.0
Total	69	
Missing	16	
Total	85	

As shown in Table 7, the study participants indicated various education levels. Among police officers who achieved post high school education, 30.4% had some college, 49.4% had a college degree, and 11.6% had graduate level education or a graduate degree.

Table 7

Frequency and Percentages of Education Categories

Education	Frequency	Percentage
High School	6	8.7
Some College	21	30.4
College	34	49.3
Graduate School	8	11.6
Total	69	
Missing	16	
Total	85	

The sample of study participants were asked to report their marital status. Table 8 reveals that more than half of the participants were married (58%), 14.5% reported being divorced/separated, and 21.7% reported being single.

Table 8

Frequency and Percentages of Marital Status Categories

Marital Status	Frequency	Percentage
Married	40	58.8
Live-in partner	4	5.8
Divorced / Separated	10	14.5
Single	15	21.7
Total	69	
Missing	16	
Total	85	

As shown in Table 9, just over half of the study participants reported never serving in the military (56.5%).

Table 9

Frequency and Percentages of Military Experience

Military Experience	Frequency	Percentage
Yes	30	43.5
No	39	56.5
Total	69	
Missing	16	
Total	85	

Descriptive statistics indicated that a larger percentage of the sample participants had less than 7 years' experience as a police officer (47.8). As shown in Table 10, 27.5% had eight to 14 years of police experience, 14.5% had 15 to 21 years of police experience, and 8.7% had more than 22 years of police experience.

Table 10

Frequency and Percentages of Years of Police Experience

Years of Police Experience	Frequency	Percentage
0 to 7 years	33	47.8
8 to 14 years	19	27.5
15 to 21 years	6	14.5
22 years or more	10	8.7
Did not answer	1	1.4
Total	69	
Missing	16	
Total	85	

Statistical assumptions

The Norfolk Police Department has approximately 786 police officers. Based on the 85 volunteer study participants in the study, it can be reasonably concluded that most police officers are not willful participants in psychological research. This supports the assumption that the code of silence is strongly supported by more than half of police officers. Although the assessments were anonymous, there were 69 assessments that reflected gender, race, and birth year. I was allowed 24 hour access to all the police precincts, which supported the assumption that different levels of leadership within the police department supported the research. Assessment results found that more than half of the research participants provided honest and unbiased information on the assessments.

Statistical Analysis of Research Hypotheses

Hypothesis 1

The first hypothesis predicted that police officers with above normal range scores on the Defense Avoidance (DA) scale of the Trauma Symptoms Inventory 2-A (TSI 2-A) will also score above normal range on the Tension Reduction Behavior (TRB) and Intrusive Experiences (IE) scales of the TSI 2-A, indicative of maladaptive behaviors (e.g. hyper-aggression, substance abuse, suicide, and domestic violence), at .05 level of significance or 95% confidence interval. To test this hypothesis, and examine the effect of the scale scores relationship on maladaptive behavior, a descriptive analysis and multiple linear regression analysis were conducted to assess the relationship between the DA scale scores and scores of the TRB scale and IE scale. On the TSI 2-A, scores </= 59 are within normal range (coded as 1 in SPSS); scores 60 – 64 are within the problematic

range (coded as 2 in SPSS); and scores > 64 are clinically significant (coded as 3 in SPSS) (Table 11).

Table 11

Descriptive scale for TSI 2-A: DA, IE, & TRB

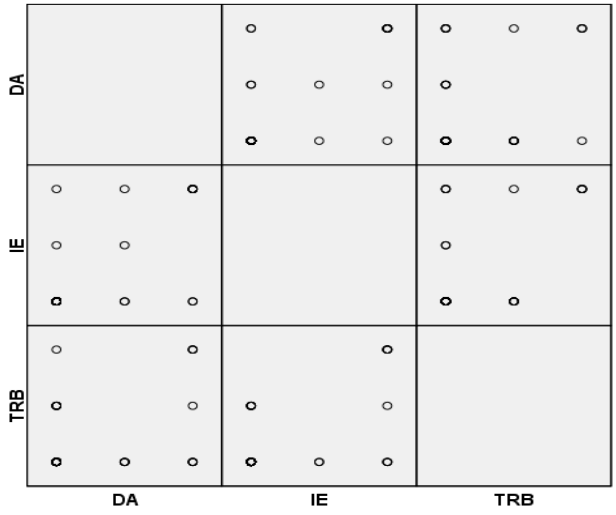
Participants (N=66)	DA	IE	TRB
% Normal Range	82	85	85
% Problematic Range	6	3	9
% Clinical Range	12	12	6
Mean	1.30	1.27	1.21
SD	.68	.67	.54

There was a positive correlation between all variables: $r = .730$, $n = 66$, $p = .001$; $r = .409$, $n = 66$, $p = .001$; and $r = .603$, $n = 66$, $p = .001$. Although there were positive correlations between the TSI 2-A scale scores, the null hypothesis that study participants with a pairing of average scales scores on the DA, IE, and TRB will not have an onset of various distressing psychological symptoms and are not likely to display maladaptive behaviors was rejected. A scatterplot summarizes the results (Figure 1). Overall, there was a strong, positive correlation between DA and IE scale scores. These results suggested that study participants (18%) who suppressed painful thoughts or memories were correlated with study participants (15%) who reflected intrusive posttraumatic reactions and symptoms. There was a moderate, positive correlation between DA and TRB scale scores. A correlation of such type suggests that police officers' negative attempts to eliminate distressing thoughts were associated with police officers who may act out negatively. Additionally, there was a strong correlation between TRB and IE scale scores. These results suggest that 15% of the study participants who reflect intrusive posttraumatic symptoms and reactions were correlated with 15% of the study participants

who soothe negative internal thoughts through externalizing behavior or acting out (e.g. excessive aggression, thrill-seeking, or self-destructive behavior).

Figure 1

Scatterplot graph for TSI 2-A Correlation: DA, IE, and TRB



Hypothesis 2

The second hypothesis predicted that police officers' Posttraumatic (TRAUMA) and Externalization (EXT) scores from the TSI 2-A would be above normal range, which would reveal depth of trauma and stress within the police culture at a .05 level of significance. To test this hypothesis, a bivariate correlation analysis and descriptive frequency analysis were conducted to assess the relationship between the TRAUMA and EXT factor scores. On the TSI 2-A scores, </= 59 are within normal range (coded as 1 in SPSS), scores 60 – 64 are within the problematic range (coded as 2 in SPSS), and scores > 64 are clinically significant (coded as 3 in SPSS) (Table 12). There was a positive correlation between the two variables: r = .318, n = 66, p = .001. The null hypothesis that

those who score within the low to normal range on TRAUMA and EXT factor will not exhibit significant levels of trauma, stress, and self-destructive behaviors was accepted.

Table 12

Descriptive Scale for TSI 2-A Factors: Posttraumatic & Externalization

Participants (N=66)	TRAUMA	EXT
% Normal Range	80	94
% Problematic Range	14	5
% Clinical Range	6	1
Mean	1.26	1.08
SD	.56	.32

Overall, there was a moderate, positive correlation between the TRAUMA and EXT factor scores of the TSI 2-A. Of the 66 participants who turned in a completed TSI 2-A, the TRAUMA factor had 13 (20%) and the EXT factor had 4 (6%) participants scoring within the problematic or clinical significant range. This indicates that 26% of the sample population is experiencing distress that is often found in a person that tends to report some combinations of intrusive memories, irritability, sleep disturbances, flashbacks, self-destructive behaviors, or aggressive behaviors.

Hypothesis 3

The third hypothesis predicted that results from the JHU Shield questionnaire will indicate that frequent exposure to stress, trauma, and violence will affect police officers' work attitude, coping strategies, physical health, behavior, family, and the general public. To test this hypothesis, all questions underwent a descriptive frequency analysis and correlational analysis. Officers were asked to rate items on the JHU Shield questionnaire categories (e.g. Work Attitude/Job Stressors, Events at Work, Dealing with Stress, Health, and Behaviors) using three Likert scales: One scale was a five-point scale. The agreement scale was registered as *"strongly agree"* (1), *"agree"* (2), *"neither*

agree/disagree" (3), *"disagree"* (4), and *"strongly disagree"* (5). A second scale was a four-point frequency scale registered as *"never"* (1), *"sometimes"* (2), *"frequently"* (3), and *"always"* (4). A third scale was a four-point frequency scale registered as *"not at all"* (1), *"a little"* (2), *"very much"* (3), and *"not applicable"* (4). Additionally, the JHU Shield used a dichotomous scale registered as *"yes"* (1) and *"no"* (2).

Job Stressors: Study participants' results for "trusting my work partner" (M = 1.65, SD = 0.72, possible score range = 1 to 5, α = .45) and "making split decisions on the street that could have had serious consequences" (M = 1.56, SD = .88, possible score range = 1 to 5, α = .45) had the lowest mean scores, suggesting the highest agreement (88.4%) among study participants. Other areas of agreement and disagreement with the work stress category for study participants are shown in Table 13. A factor analysis correlation matrix was computed to assess the relationship between the questions in the work attitude subcategory. There were positive and negative correlations within the group. There was a positive correlation between two variables, r = .476, n = 69, p = .001 and a second set of variables, r = .535, n = 69, p = .001. Overall, these were moderate positive relationships. One positive relationship was between "when I am assertive or question the way things are done, I am considered a militant" and "I feel that I am less likely to get chosen for certain assignments because of 'who I am' (i.e. race, gender, sexual orientation, physical characteristics)." This correlation suggests that increases in questioning the way things are done within the department were correlated with decreases in being chosen for certain job assignments. A second moderately positive relationship was between "media reports of all good police wrong doing are biased against us" and "I have to make split decisions on the street that could have had serious consequences." This correlation suggests that an

increase in making split decisions that could have had serious consequences increases the likelihood of biased media reports regardless if the decision was the right decision.

Table 13

Work Attitudes/Job Stressors

Participants (n=69) Variable	Strongly Agree/ Agree %	Neither Agree/Disagree %	Strongly Disagree/ Disagree %
Good and effective cooperation between units	69.6	13.0	17.3
Work as job, not as career	24.6	14.5	60.9
Likely look for another job outside of NPD within next year	29.0	17.4	53.6
Promotions at NPD are tied to ability and merit	15.9	34.8	39.2
Media reports of good police wrong doing are biased against us	68.1	26.1	5.8
The administration supports officers who are in trouble	18.8	26.1	55.1

Events at Work: Study participants' exposure to traumatic events or images was high, with 100% of respondents reporting at least one exposure. The frequency of exposure to violent or traumatic events and its emotional impact are shown in Table 14. It was found that for 91.3%, attending a police funeral had the greatest emotional effect, followed by being the subject of a professional standards investigation (65.2%), making a violent arrest (62.3%), and responding to a bloody crime scene (53.6%). A bivariate correlation matrix was computed to assess the relationship between the questions in the "events at work" subcategory. There were negative and positive correlations within the group; however, the highest correlation was a positive correlation between two of the variables, $r = .696$, $n = 69$, $p = .001$. Overall, there was a strong positive relationship between "responding to a bloody crime scene" and "making a violent arrest." This correlation suggests that the increase of responses to bloody crime scenes was correlated with an increase in police officer involvement in a violent arrest.

Table 14

Critical Police Incidents

Type of incident	Exposure to critical incident		Percentage reporting an emotional effect from incident
	n	%	%
Attending a police funeral	66	95.7	91.3
Being the subject to Internal Affairs investigation	58	84.1	65.2
Making a violent arrest	61	88.4	62.3
Responding to bloody crime scene	68	98.6	53.6
Shooting someone	6	8.7	43.4
Personally knowing the victim	41	59.4	40.6
Experiencing a needle stick injury or other exposure to blood and body fluids	41	59.4	37.7
Hostage situation	50	72.5	33.3

Note. N = 69

Dealing with Stress: Frequency scores were particularly high for certain items regarding dealing with stress. For example, when dealing with stressful events at work, 65.2% of the study participants reported that they sometimes or frequently "stay away from everyone, you want to be alone"; 59.4% reported that they "pray for guidance and strength"; 86.9% exercise regularly to reduce tension; 34.7% reported that they "yell or shout at your spouse/significant other, a family member, or a professional"; 40.5% reported that they "hang out more with your fellow officers at the bar"; 8.6% "thought of ending your life"; 60.8% reported that "they increase their sexual activity"; and 47.8% reported that "they drink more than planned." For the moderately positive correlation of questions within the "dealing with stress" subcategory of the JHU Shield, refer to table 15.

Table 15

Pearson's Correlations Statistics for alcohol related questions from the JHU Shield

Variable (N = 69)	"Period when you could not remember what happened when you were drinking"	
	Pearson Correlation	p value
Pray for guidance and strength	.359	.002
Did you ever worry or feel guilty about your alcohol consumption	.600	<.001
Did you ever drink more than you planned	.668	<.001

Note. *R = .581, n = 69, p = <.001 (Correlation: "Did you ever worry or feel guilty about your alcohol consumption" and "Did you ever drink more than you planned")

Physical Issues: The most commonly reported physical symptoms included chronic back pain (33.3%). This was followed by chronic insomnia (26.1%), migraines (23.2%), foot problems (21.7%), and high blood pressure (14.5%). The highest positive correlation was between chronic insomnia and chronic low back pains, R = .350, n = 69, p = .003. Table 16 provides statistical data for other weak to moderate positive correlations.

Table 16

Pearson Correlations Statistics of "chronic insomnia" with other physical health factors on the JHU Shield Questionnaire

Variable (N = 69)	Correlation (*r*)	Significant level (*p*)
* (constant)		
Migraines	.228	.030**
Chronic low back pains	.350	.002**
High blood pressure	.130	.143
Foot problems	.087	.239
Reproductive problems	.276	.011**

Note. *Constant variable (Chronic insomnia)
**Confidence Interval >95%

Psychological issues: The most commonly reported psychological concerns were tired at work even with adequate sleep (82.6%); feeling low of energy (73.9%); moody or impatient over small problems (69.6%); feeling blue (59.4%); uncaring about the

problems/needs of the public (59.4); low interest in doing fun things because of work (56.4%); feeling no interest in things (52.1%); emotionally, physically, and spiritually depleted (51.2%); depressed at work (50.7%); self-blaming (49.3%); feeling something bad was going to happen to him/her (46.4%); and resistance to illness is lowered because of my work (44.9%). A bivariate correlation matrix was computed to assess the relationship between the questions in the "Physical/Mental Health" subcategory (Table 17). There were negative and positive correlations within the group; however, due to suicide rates in the police culture, the question "in the past 6 months thoughts of ending your life" had several moderate positive correlations. The highest positive correlation was between two of the variables, r = .564, n = 69, p =/< .001. Overall, there was a moderate positive relationship between "in the past 6 months thoughts of ending your life" and "in past 6 months having spells of terror or panic." This correlation suggests that unprovoked and unpredictable thoughts are linked to thoughts of suicide and symptoms of depression.

Table 17

Correlations of "In the past 6 months thoughts of suicide" with Questions from within the Physical/Mental Health/Dealing with Stress subcategories of the JHU Shield Questionnaire

Variable (N = 69)	Correlation (*r*)	Significant level (*p*)
*(constant)		
Nausea, upset stomach pains	.446	<.001
Feeling blue	.406	<.001
Suddenly scared for no reason	.406	<.001
Trouble getting your breath	.462	<.001
Exposure to needle sticking	.309	.005
I feel uncaring about the problems and needs of the public when I am at work	.354	.001
Spells of terror or panic	.564	<.001
Blaming yourself for things	.364	.001
Crying easily	.465	<.001
Feeling negative, futile, or depressed about work	.416	<.001
Smoke to relax	.355	.001
Subject to Internal Affairs Investigation	.306	.005

Note. *constant variable: "In the past 6 months thoughts of suicide"

Behavioral issues: Some behaviors associated with work stress were also commonly reported by study participants. Overall, 47.8% reported that they consumed more alcohol than they had planned, 24% engaged in avoidance of things, 8.7% felt worried or guilty about their alcohol consumption, 14.4% reported that they currently smoke tobacco products, and 8.7% reported that they sometimes did not remember what happened when they were drinking. Also, regarding aggressive behavior, 11.5% of the study participants admitted "smashing things" when stressed. Study participants also reported getting physical by means of pushing, shoving, or grabbing another police officer (7.2%), significant other or spouse (2.9%), children (4.3%), or pets (5.8%). A bivariate correlation matrix was computed to assess the relationship between the questions in the "Behavior" subcategory. There were negative and positive correlations within the group; however, the highest correlation will be reported. There was a positive correlation between two of the variables, $r = .648$, $n = 69$, $p = .001$. Overall, there was a strong positive relationship between "you getting physical (e.g. pushing, shoving, or grabbing) with a fellow officer" and "a fellow officer getting physical with you." This correlation suggests that police on police aggression will be met with police aggression.

JHU Shield Questionnaire: The null hypothesis was rejected because the questionnaire provided evidence through descriptive and correlational statistical data to support the hypothesis that frequent exposure to stress, trauma, and violence affects police officers' work attitude/job stressors, coping strategies, physical/mental health, and behavior.

Hypothesis 4

The fourth hypothesis predicted that the low to moderate scores from the Compassion Scale would support the theory that continuous exposure to violent and traumatic events

will reflect that police officers are likely to suffer from compassion fatigue. To test this hypothesis, a descriptive frequency analysis of The Compassion Scale was conducted to assess the frequency of self-reporting of human compassion by police officers. The study participants' results for the Compassion Scale at a 95% confidence level reflected that 76.5% responded in the moderate range for human compassion and 23.5% responded in the high range for human compassion (N = 85, M = 2.24, SD = .43, possible score range 1 to 3). As shown in table 18, none of the study participants scored in the low range for human compassion. These results suggest that more than half of the study participants have a higher probability of enduring symptoms of compassion fatigue.

Table 18

Results of the Compassion Scale

Variable Scoring Range	Frequency	Percentage	Mean
Low Compassion 1 – 2.5	-	-	
Moderate Compassion 2.6 – 3.5	65	76	
High Compassion 3.6 – 5.0	20	24	
Mean	85		3.24

Additionally, a bivariate correlation of the Compassion Scale was conducted against the JHU Shield Questionnaire and TSI 2-A to determine if there was a positive correlation. The results from the bivariate correlation analysis between the Compassion Scale and the JHU Shield Questionnaire and TSI 2-A are in Table 19.

Table 19

Correlations of Compassion Scale Score with Questions from the JHU Shield Questionnaire & TSI 2-A Scales (N = 69)

Variable	Correlation (*r*)	Significant level (*p*)
*(constant)		
Making a violent arrest	-.024	.843
Being the subject of an Internal affairs investigation	.156	.200
Personally knowing the victim	-.050	.680
Having intrusive or recurrent distressing thoughts, memories, or dreams about the event	.029	.811
I feel I treat the public as if they were impersonal objects	.162	.184
Stay away from everyone, you want to be alone	-.024	.843
Shout at your significant other, a family member, or a professional	.032	.796
Gamble	.384	.001**
Increase your sexual activity	-.179	.142
Suffer from migraines	-.018	.882
Feeling low of energy or slowed down	.221	.068
Feeling no interest in things	.120	.326
I feel uncaring about the problems and needs of the public when I am at work	-.167	.171
I find myself treating my family the way I treat suspects	-.262	.030***
Exposure to victims of sexual assaults	-.228	.060
Exposure to attending police funerals	.108	.377
Exposure to bloody crime scenes	-.335	.005**
Point weapon at another human	-.159	.192
Posttraumatic Factor Scale (TSI 2-A)	-.057	.649
Hyperarousal (TSI 2-A)	-.073	.559
Insecure Attachment (Rejection Sensitivity) (TSI 2-A)	.433	.001**

Note. *Constant variable: Compassion Scale
**Confidence interval at 99%
***Confidence interval at 95%

There was a positive correlation between two variables, r = .433, n = 66, p = .001. Overall, there was a moderate, positive correlation between the compassion scale score and the insecure attachment-rejection sensitivity scale score from the TSI 2-A. This correlation suggests at a 99% confidence interval that having moderate levels of human compassion was correlated with an increase in preoccupations and fears about the

possibility of rejection and abandonment. Based on the results of the descriptive analysis and linear regression, the null hypothesis is rejected.

Hypothesis 5

The fifth hypothesis predicted that study participants would score within the normal range on the Paulhus Deception Scale (PDS). Scores within normal range on this assessment indicate that the study participants responded with honest, accurate, and insightful self-descriptions. According to the PDS administration manual, the scoring range of concern for all scales is T-scores above 70 or below 30. To test this hypothesis, a reliability analysis and descriptive frequency analysis of the PDS Self-Deceptive Enhancement scale (SDE) represents an unconscious favorability bias closely related to narcissism and the Impression Management scale (IM) representing social desirability (i.e. faking or lying) will be interpreted to determine if study participants provided extreme responses. The results for the SDE scale ($M = 4.42$, $SD = 1.62$, possible score range 1 to 9, $\alpha = .80$) and IM scale ($M = 4.36$, $SD = 1.66$, possible score range 1 to 9, $\alpha = .80$) suggest that more than half of study participants were in the average to slightly above average range. Overall, the statistical result of the PDS suggests that 72.2% of the study participants scored in a range that is consistent with honest, accurate, and insightful descriptions. Based on the reliability analysis and descriptive frequency analysis, the null hypothesis that police officers used in the sampling population would not score within the normal range on the IM and SDE was rejected. As a result, the normal range scoring by the study participants indicates that the information collected for the research is not considered skewed data. Results of the reliability analysis and descriptive frequency analysis are presented in Table 20.

Table 20

Frequency of Response Range for Paulhus Deception Scales

Scoring Range	n	IM %	n	SME %
Above 70 = very much above average	5	7.6	5	7.6
66 - 70 = much above average	2	3.0	4	6.1
61 - 65 = above average	12	18.2	10	15.2
56 – 60 = slightly above average	12	18.2	6	9.1
45 – 55 = average	25	37.9	24	36.4
40 – 44 = slightly below average	4	6.1	16	24.2
35 – 39 = below average	2	3.0	--	--
30 – 34 = much below average	4	6.1	--	--
Below 30 = very much below average	--	--	1	1.5

Note. Total Participants (N = 66)

Measures for Ethical Protection of Participants

All study participants were anonymous volunteers, and the names of police officers who completed questionnaires were unknown. For that reason, it would be difficult to associate study participants' responses or identities with the assessment results.

Summary

The results of Chapter 4 were obtained from a variety of statistical analyses: Bivariate Correlation, Descriptive Analysis, Descriptive Frequency Analysis, Linear Regression, and Reliability Analysis. The statistical analysis results of the research produced the following general findings:

1. There was statistical evidence that police work continues to be a Caucasian male dominated occupation.
2. There was evidence of a positive correlation between the variables from the TSI 2-A: Defensive Avoidance, Tension Reduction Behavior, and Intrusive Experiences.

3. There was evidence of a positive correlation between the posttraumatic and externalization symptoms.
4. The evidence was sufficient to support the hypothesis that frequent exposure to trauma and violence affects police officers' overall job stressors, coping strategies, physical health, mental health, and work behavior/attitude toward family and the general public.
5. The evidence from the JHU Shield Questionnaire revealed a positive correlation between thoughts of suicide and depressive symptoms and job stress.
6. There was statistical evidence that more than half of the sample police officers have moderate levels of human compassion.
7. Statistical evidence reflected that police officers provided answers on the various assessments that were consistent with honesty, accuracy, and insightful descriptions.

Chapter 5: Discussion, Conclusion, and Recommendations

Introduction

Chapter 5 will begin with a brief explanation of why the research was conducted. Next, the chapter will provide an interpretation of the findings in the study, explore the limitations of the study, suggest recommendations based on the findings in the study, and discuss implications for social change. The chapter will end with conclusions based on the findings from the study.

Police officers are protectors of public safety and individuals' civil rights (Gibbs, Ruiz, & Klapper-Lehman, 2014). The purpose of this research was to consider how frequent exposure to traumatic stressors contributes to mental health difficulties among police officers. Policing is a dangerous profession. When others stay away from active, violent and/or traumatic events to save their lives and avoid injury, police officers risk their lives and increase the possibility for personal injuries when responding to active, violent and/or traumatic events. The purpose of this research was to determine if a sample population of active police officers from the Norfolk Police Department was frequently exposed to violence, and if so, whether they experienced problematic or significant clinical symptoms of mental health disorders. A power analysis of 786 active Norfolk Police Officers' results indicated that 65 Norfolk Police Officers were needed to have a valid sample of research participants. This quantitative study was conducted to fill the gap in the literature by revealing how public understanding and acknowledgement of the psychological damage of frequent exposure to traumatic and violent events/images can support the training and mental health treatment of law enforcement officers.

Summary of Findings

Sixty-six police officers participated in this research. The study sample consisted of mostly men (89.9%) and Caucasians (69.6%). The largest age range was between 27 to 37 years old (42%). Approximately 75% of the police officers reported having less than 14 years of police experience. Almost 49% of the police officers reported having a college education, and 56% reported having no military experience. Nearly 54% of the police officers reported being married or in a committed relationship. Of the 66 police officers sampled, 81.18% experienced frequent exposure to a traumatic or violent event or image. After the exposure to the violent or traumatic event or image, 33.3% to 91.3% of the sample reported an emotional effect. The purpose of this research generated five research hypotheses, which generated key findings:

Research Hypothesis 1: Police officers who internalize distressing thoughts are likely to act out with negative behavior as a way to self-soothe.

Research Hypothesis 2: Approximately 26% of the study participants were exhibiting problematic to clinical levels of trauma, stress, and self-destructive behaviors.

Research Hypothesis 3: Frequent exposure to trauma and violence affects police officers' overall job stressors, coping strategies, physical health, mental health, and work behavior/attitude toward family and the general public. Research also found evidence linking police suicides to police officers' physical health, police officers' mental health, and how police officers deal with job-related stress.

Research Hypothesis 4: Overwhelmingly, police officers were found to have moderate levels of compassion. Levels of compassion in this range suggest a higher probability of enduring symptoms of compassion fatigue.

Research Hypothesis 5: The information provided by police officers on the various assessments was consistent with honesty, accuracy, and insightful descriptions. Next, I will interpret the findings based on the five research hypotheses. This will be followed by a description of the limitations, recommendations for further research, and implications for social change. I will conclude the chapter with a summary of the research based on the reality of being a police officer.

Interpretation of the Findings

Internalizing Distress

Research Hypothesis 1: A major hypothesis for this research involves the internalization of psychological distressing thoughts and emotions. It was reported in Chapter 2 that most people believe police officers' internalization of psychological distress is a leading cause in some of the mental health issues encountered within police culture. A multiple linear regression and descriptive analysis were conducted to determine the relationship between police officers who scored in the problematic and clinical range on the Defensive Avoidance scale and police officers who scored in the problematic and clinical range on the Tension Reduction Behavior Scale and Intrusive Experiences Scale. The positive correlation and descriptive statistic suggested that police officers who suppress painful thoughts and memories will respond with intrusive posttraumatic reactions and display negative behaviors, such as hyper-aggression, substance abuse, suicide, and/or domestic violence. Police officers are first responders, and research has found these responders to have higher levels of posttraumatic stress reactions (Komarovskaya et al., 2014).

Posttraumatic Stress

Research Hypothesis 2: In Chapter 2, it was reported that police officers had a 12% to 35% chance of being diagnosed with PTSD due to frequent exposure to violent and traumatic events and images. To test the research hypothesis which revealed the depth of trauma and stress within the police culture, a bivariate correlation analysis and descriptive frequency analysis were conducted. There was a moderate positive correlation between the posttraumatic factor and externalization factor. However, the null hypothesis was accepted because the descriptive analysis reflected that an overwhelming majority of police officers scored in the normal range on both factors. The researcher reported in Chapter 2 that to maintain job security, most police officers were reluctant to seek mental health treatment and report mental health issues. The current study findings indicated that police officers use compartmentalization or repression to cope with memories or thoughts related to experiences with trauma and violence. Research by Thomas, Ditzfeld, and Showers (2013) suggested that compartmentalization of memories allows individuals to block negative experiences; however, this blocking may lead an individual to be overconfident and in-denial. It was also suggested that repression of traumatic memories could intensify police officers' stress levels, which can ultimately be damaging to an individual's psychological well-being (van Gelderen, Bakker, Konijn, & Demerouti, 2011). As a result, police officers' traumatic and violent memories and/or thoughts are left untreated and unreported.

JHU Shield Questionnaire

Research Hypothesis 3: Employment stress is a major factor leading to physical and mental health concerns. Stress has been linked to heart issues, depression, suicide, and various other issues (Lucas, Weidner, & Janisse, 2012). As seen in other research studies,

my research supported findings that frequent exposure to stressful events (e.g. trauma and violence) affects police officers' work attitude, coping strategies, physical health, mental health, and behavior. The discrepancy frequency analysis and bivariate correlation results from the JHU Shield Questionnaire presented information that warranted further discussion.

Work attitude / Job Stressors: Interpretation of the results from the work attitude / job stressors subcategory was highlighted: Findings indicated that 30 of the 69 study participants believe that police administration does not support police officers that are in trouble. Police administrators have always found internal discipline to be challenging; however, administrators have to manage an effective police force with unbiased and efficient discipline (Walsh & Conway, 2011). Of the 69 participants, 20 are looking for another job because they do not view being a police officer as their career. The reasons they are looking for a new job vary from burnout from police work to desire to pursue a career with high financial gains. Schlosser, Safran, and Sbaratta (2010) suggested that low economic cycles and high unemployment rates increased pursuit of law enforcement careers.

Dealing with Stress: The findings show that police officers respond to stress in a variety of ways: exercising regularly, physical isolation from people, increasing sexual activity, drinking alcohol, and spirituality. Approximately 87% of the sample rated exercising regularly the highest. According to Papazoglou and Andersen (2014), exercises such as yoga, dance, journal writing, and other mind and body exercise are beneficial for police officers in developing physical and mental well-being. The uses of physical isolation and drinking alcohol to deal with stress were consistent with research

from Chapter 2. The strongest positive correlation revealed that police officers' excessive consumption of alcohol often caused them not to remember what happened during the period of consuming alcohol. Alcohol use and abuse have been found to be high among police officers (Ménard & Arter, 2013). Alcohol after work is a strategy for reducing stress and avoiding undesirable emotions. It was found that approximately 40% of the sample socializes with other police officers at bars during days off or at the end of a work shift. Police officers in this sample revealed an increase in sexual activity; however, a search of various research databases did not suggest that stress caused an increase in sexual activity. Bodenmann, Atkins, Schär, and Poffet (2010) proposed that stress was more inclined to cause a decrease in or negative effect for sexual activity. According to Chopko (2011), spiritual development promotes human compassion in police officers. Findings from the dealing with stress subcategory support spirituality within the police culture: 64% of the sample of police officers reported relying on their faith to facilitate them through rough times, 59.4% of study participants reported praying for guidance and strength, and 47.8% reported that their belief about their personal safety and spirituality has been changed as a result of various work experiences.

Physical and psychological issues: Research from Chapter 2 revealed that police officers suffered from physical health issues. The findings were consistent with research through evidence of a positive correlation between chronic insomnia and physical issues, such as back / foot problems, high blood pressure, migraines, and reproductive problems. It was revealed that 57 of the 69 study participants reported that they were tired at work even with adequate sleep; 73% reported feeling low of energy; 48 of 69 reported feeling moody or impatient in response to small problems; and finally, 59% of the sample

indicated that they were feeling blue and uncaring about the problems or needs of the public. Research has indicated that there are high rates of suicides among police officers. The findings from the question "In the past six months' thoughts of suicide" and various questions from the physical health, mental health, and dealing with stress subcategories of the JHU Shield Questionnaire were consistent with previous studies. Research from Chapter 2 suggested unprovoked and impulsive thoughts are linked to thoughts of suicide and symptoms of depression within police culture.

Behavioral: Findings from research indicated that 24% of the police officers in this sample engage in avoidance behaviors through means of excessive alcohol consumption and aggressive behavior. Little research has been conducted involving police aggression against a police coworker; however, the findings of this research show that police on police aggression will be met with aggression. In other words, strong positive correlations suggest that police officers are less likely to "back down" from a physical or verbal confrontation against another police officer. Approximately 11% of the police officers in the sample reported smashing things when stressed, and 24 of the 69 police officers in the sample reported at least one incident of aggression towards a spouse, child, pet, or coworker. In reference to alcohol use, research by Ballenger et al. (2011) found that some police officers do engage in at-risk level of alcohol use. The researcher found that 33 of the 69 police officers in the sample consumed more alcohol than planned, and six of the 69 felt guilty about their alcohol consumption and not remembering what happened when they were drinking.

Human Compassion

The researcher found that none of the sample of police officers scored in the low range for human compassion, 76% scored in the moderate range for human compassion, and 24% scored in the high range for human compassion. The findings and other research (Papzoglou & Andersen, 2014) indicate that police officers that scored in the moderate to low range have a higher possibility of developing compassion fatigue and posttraumatic stress symptoms.

Self-Deception & Impression Management

This assessment was important because it added credibility to the information evaluated in the assessments provided by the study participants. The sample *(n = 66)* of police officers' scores were within normal range, suggesting their answers were reliable and provided a deep understanding of the professional and mental health issues within police culture.

Theoretical Framework

The trauma that police officers are exposed to is frequent and unpredictable. This research supports earlier research that frequent storing of traumatic memories and thoughts affects a person's emotional and behavioral response to various situations. As a result, frequent exposure to traumatic events may cause police officers to endure impairment across cognitive, emotional, and physiological domains that will affect their decision-making process (Murphy, Rosenheck, Berkowitz, & Marans, 2005; Wilson, Woods, Emerson, & Donenberg, 2012). According to Resick (2001), cognitive treatments were proven to be the most effective in the management and understanding of symptoms related to frequent exposure to traumatic and/or violent events. There are long-term physical and psychological consequences resulting from internalizing distressing

symptoms (Sijaric-Voloder & Capin, 2008). The findings revealed that police officers did not consciously consider their internal thoughts and emotions after exposure to a violent and/or traumatic event.

A cognitive theory perspective on the findings suggests that police officers that scored in the problematic/clinical range or above average on assessments believe that the coping strategy of avoiding distressing psychological symptoms through suppressing intrusive memories will facilitate the minimization of psychological damage. In turn, this belief does not lessen the psychological damage; it causes a display of maladaptive behavior. Cognitive theorists believe that police officers who report psychological distressing thoughts will reflect an improvement in cognitive empathy and the cognitive capacity for problem solving to cope with future stressful events (Chiesa & Serretti, 2009). This research study revealed that it was difficult to combine empathy and understanding with authority and control and then have the cognitive awareness to remain unbiased and restrained with citizens. Research by Addis and Stephens (2008) and Violanti et al. (2006) found that police officers that internalize psychological distress as a result of frequent exposure to traumatic and violent events or images will externalize through displaying symptoms of posttraumatic stress and depression, moderate levels of human compassion, physical aggression, excessive alcohol use, insomnia, health issues (e.g. high blood pressure, migraines, back problems, and foot problems), and thoughts of suicide.

Limitations of Study

There are several limitations to this study: First, the sample was only generalizable to the Norfolk Police Department. Next, there was no evidence of level of exposure to violence or trauma prior to becoming a Norfolk Police officer. Thirdly, the design of the

study was found not favorable to making conclusions of causation; however, it was found to provide significant positive correlations. Furthermore, a major constraint on the design was a single researcher collecting data from a large number of police officers working three shifts (i.e. days, evenings, and nights).

Police officers believed that the traumatic events they endure have little to no effect on them. Pasciak and Kelley (2013) report that frequent exposure to trauma and violence can take an emotional toll on the most resilient police officer. Research shows that police officers are reluctant to seek mental health treatment and report mental health issues due to wanting to preserve job security.

The findings reflected that the data was gathered from an accessible sample of police officers who had been exposed to at least one traumatic event as a police officer and had knowledge of least one individual who had been exposed to a traumatic event. Research by Andersen and Lo (2011) indicated that police will be exposed to more violence and trauma than most citizens will encounter in a lifetime.

The code of silence did somewhat present a problem when gathering data to complete the research. Although the minimal sample number was obtained, 307 assessment packets were distributed to various Norfolk Police Officers. Male and female police officers collectively dropped 85 packets (27.7%) in the secured drop boxes; however, only 21.5% (66) were validated as completed packets.

Recommendations

Every police officer will experience violent and traumatic events; however, the frequency of exposure will vary. This study sought to study how frequent exposure to traumatic stressors contributes to mental health difficulties among police officers through

a statistical analysis of scores obtained from the TSI 2-A, Compassion Scale, the JHU Shield Questionnaire, and the Paulhus Deception Scale. The statistical findings from this study were not overwhelmingly significant; however, it provided additional information to researchers, mental health professionals, and public-safety managers for making decisions toward the improvement and development of mental health programs for law enforcement officers. As a result of this study, several recommendations are being put forth. These recommendations will be listed and briefly discussed in the section below.

1) The study should be replicated with other police departments within the Hampton Roads area to study if comparable results occur with other police officers.
2) During the replication of this study, there should be more than one researcher in the data collecting process. It was assessed that multiple researchers would allow for the issuance and collection of more study packets in less time.
3) Police departments should offer police officers the opportunity to receive mental health training for the purpose of rejecting the stereotypical beliefs against seeking all types of psychological services. The research findings from the sample of police officers indicated unexpected correlations with thoughts of suicide, depression, insomnia, and substance abuse. Research by Rosenberg (2011) suggested that higher frequency of exposure to trauma increases the risk for alcoholism, depression, suicide attempts, and other negative outcomes.
4) Police departments should provide education on the benefits of seeking mental health and substance abuse treatment. Enhanced training and improved mental health for police officers will certainly influence their patrolled communities and the policing culture.

All of these recommendations will likely minimize the risk for long term mental health issues in police officers.

Implications

Failure to engage mental health issues resulting from frequent exposure to traumatic and violent events will lead to negative psychological / physiological outcomes and externalized behavior problems (McMahon, Felix, Halpert, & Petropoulos, 2009). This research implicates a need for periodical mental health assessments for police officers. The findings revealed that seeking mental health treatment is a barrier for police officers because of the lack of trust in police administrators and fear of termination from policing. Police officers do not report other police officers' personal problems because of a fear of revenge or being "black-balled" by other police officers (Edwards, 2006). Therefore, officers suffering from depressive symptoms, alcohol abuse issues, and/or thoughts of suicide, chronic insomnia, and other psychological distressing symptoms will not seek mental health treatment. Research by Hanafi, Bahora, Demir, and Compton (2008) indicated that a greater recognition and understanding of mental illness will reduce stereotyping and shame towards police officers who seek mental health treatment. It is vital that shame is not overlooked because it can cause distress and withdrawals, but most puzzling, shame increases aggression, irritation, and other externalized maladaptive behaviors in police officers (cited in Hanson, 2003). Overall, the findings of this research will change the thought process of police officers, mental health professionals, and public-safety adminstrators by exposing the reasons why police officers do not seek mental health treatment as a result of frequent exposure to violent and traumatic events.

The study can be useful to public-safety decision makers when reviewing police employment benefits and police manning strategies (e.g. implementing a mental health day off, increase in sick leave per pay period, increase in annual leave per pay period, and assignment of permanent shifts) to minimize police stress.

Conclusion

The results of this study extend our understanding of how police officers are affected by frequent exposure to violence and trauma. Police officers have to respond to domestic assaults, manage angry crowds, conduct traffic control, respond to violent/non-violent crime scenes (van Gelderen, Bakker, Konijn, & Demerouti, 2011), and conduct many other law enforcement responsibilities while maintaining human compassion without losing their self-control. Furthermore, police officers are subjected to dangerous situations that can result in psychological and physical trauma or, worse, death. Therefore, it is necessary to research how frequent exposure to violence and trauma affects police officers, mostly because there are known (i.e. general knowledge) and unspoken (i.e. involving protecting the shield or the code of silence) issues in the discipline of policing / police culture. It is common knowledge that police officers have to make daily choices between life, death, sending someone to jail, giving a ticket, or giving a warning while performing their job. When there is public disorder and peace needs to be restored, the majority of people will call the police. As a result, police officers often see people at their worst versus at their best, which fundamentally exposes police officers to unlimited types of violent and traumatic events. The findings of this research, other research, and the researcher’s personal police experience indicate that

some police officers will be resilient and have a successful career with minimal or situational psychological discomfort.

Research has revealed that being a police officer comes with an unknown emotional price. First, what is not known is how to minimize the long-term mental anguish that will come after years of making tough decisions and enduring frequent exposure to traumatic and violent events/images. Most police officers make these decisions and endure the traumatic exposure until they retire. Upon retiring, many police officers often minimize their contact with the active police culture (e.g. due to relocating, not wanting interaction with the police culture, a disgruntled employee, active police friendships disconnect, etc.). These are also reasons which make it difficult to collect research on the mental health of retired police officers.

Secondly, what is not known from day one of police officers' career is that they will become emotionally-hardened after continuous exposure to violence, traumatic events, and hearing the various excuses that people provide for their socially unacceptable behaviors. The emotional hardening does not "ease-up" because there is an ongoing process of exposure to violence/trauma and engaging people at bad moments in their lives. Finally, what is not known is how to minimize compassion fatigue in police officers and how to find police officers who are in the early stages of developing mental-health problems and losing their cognitive empathy or human compassion. Understanding whether police officers' frequent exposure to traumatic and violent events/images predicts the likelihood of mental health issues during his/her police career is an area for additional research. As a result, research should continue to assist mental health workers and police officers in understanding the long-term effects of frequent exposure to violent

and traumatic events and images. Furthermore, this study may lead to further research with the intention of increasing public knowledge for the improvement of mental health treatment for law enforcement officers.

REFERENCES

Aamodt, M. G. & Stalnaker, N. A. (2006). Police officer suicide: Frequency and officer profiles. Retrieved on December 16, 2013 from http://www.policeone.com

Addis, N., & Stephens, C. (2008). An evaluation of a police debriefing programme: Outcomes for police officers five years after a police shooting. *International Journal of Police Science & Management, 10*(4), 361-373.

Alemika, E. O. (2009). Police practice and police research in Africa. *Police Practice & Research: An International Journal, 10*(5-6), 483-502.

Aker, A., Önen, P., & Karakiliç, H. (2007). Psychological trauma: Research and practice in Turkey. *International Journal of Mental Health, 36*(3), 38-57.

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders (4th ed., text rev.)*. Washington, DC: Author.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders (5th edition)*. Washington, DC: Author.

American Psychological Association. (2012a). *PsycARTICLES*. Retrieved on June 24, 2012 from http://www.apa.org/pubs/databases/psycarticles/index.aspx

American Psychological Association. (2012b). *PsycINFO*. Retrieved on June 24, 2012 from http://www.apa.org/pubs/databases/psycinfo/index.aspx.

Anderson, A. S. & Lo, C. C. (2011). Intimate partner violence within law enforcement families. *Journal of Interpersonal Violence, 26*(6) 1176–1193.

Anderson, C.A., & Bushman, B.J. (2002). Human aggression. *Annual Review of Psychology, 53*(1), 27–51.

Anderson, G.S., Litzenberger, R., & Plecas, D. (2002). Physical evidence of police

officer stress. *Policing: An International Journal of Police Strategies & Management, 25*(2). 399 - 420.

Andersen, J. P., & Papazoglou, K. (2014). Friends under fire: Cross-cultural relationships and trauma exposure among police officers. *Traumatology, 20*(3), 182-190.

Anshel, M.H. (2000). A conceptual model and implications for coping with stressful events in police work. *Criminal Justice and Behavior: An International Journal, 27*, 375-400.

Anshel, M. H., Robertson, M., & Caputi, P. (1997). Sources of acute stress and their Appraisals and reappraisals among Australian police as a function of previous experience. *Journal of Occupational & Organizational Psychology, 70*(4), 337-356.

Ayadi, A., & Zigmond, M. J. (2011). Low concentrations of methamphetamine can protect dopaminergic cells against a larger oxidative stress injury: Mechanistic study. *Plos ONE,6*(10), 1-14.

Badger, K., Royse, D., & Craig, C. (2008). Hospital social workers and indirect trauma exposure: An exploratory study of contributing factors. *Health & Social Work, 33*(1), 63-71.

Bailey, P. E., Henry, J. D., & Von Hippel, W. (2008). Empathy and social functioning in late adulthood. *Aging & Mental Health, 12*(4), 499-503.

Ballenger, J. F., Best, S. R., Metzler, T. J., Wasserman, D. A., Mohr, D. C., Liberman, A., & ... Marmar, C. R. (2011). Patterns and predictors of alcohol use in male and female urban police officers. *American Journal on Addictions, 20*(1), 21-29.

Baron-Cohen, S. (2011). *The science of evil: On empathy and the origins of cruelty.* New York: Basic Books.

Baron-Cohen, S., & Wheelwright, S. (2004). The empathy quotient: An investigation of adults with Asperger Syndrome or high functioning autism, and normal sex differences. *Journal of Autism and Developmental Disorders, 34*(2), 163-175.

Bartholow, B. D., Sestir, M. A., & Davis, E. B. (2005). Correlates and consequences of exposure to video game violence: Hostile personality, empathy, and aggressive behavior. *Personality and Social Psychology Bulletin, 31*(11), 1673 – 1586.

Baum, N. (2012). Trap of conflicting needs: Helping professionals in the wake of a shared traumatic reality. *Clinical Social Work Journal, 40*(1), 37-45.

Beck, A. T. (1976). *Cognitive therapy and the emotional disorders*. New York, NY: International University Press.

Beck, C. T. (2011). Secondary traumatic stress in nurses: A systematic review. *Archives of Psychiatric Nursing, 25*, 1–10.

Beehr, T. A., Johnson, L. B., & Nieva, R. (1995). Occupational stress: coping of police and their spouses. *Journal of Organizational Behavior, 16*(1), 3-25.

Belsher, B. E., Ruzek, J. I., Bongar, B., & Cordova, M. J. (2012). Social constraints, posttraumatic cognitions, and posttraumatic stress disorder in treatment-seeking trauma survivors: Evidence for a social-cognitive processing model. *Psychological Trauma: Theory, Research, Practice, And Policy, 4*(4), 386-391.

Berg, A., Hem, E., Lau, B., & Ekeberg, O. (2006). Help-seeking in the Norwegian police service. *Journal of Occupational Health, 48*, 145–153.

Beyer-Westendorf, J. J., & Buller, H. H. (2011). External and internal validity of open label or double-blind trials in oral anticoagulation: better, worse or just different?. *Journal of Thrombosis & Haemostasis, 9*(11), 2153-2158.

Birnie, K., Speca, M., & Carlson, L. E. (2010). Exploring self-compassion and empathy in the context of Mindfulness-based Stress Reduction (MBSR). *Stress and Health, 26,* 359–371.

Birrell, P. J., & Freyd, J. J. (2006). Betrayal trauma: Relational models of harm and healing. *Journal of Trauma Practice, 5*(1), 49-63.

Bleijenbergh, I., Korzilius, H., & Verschuren, P. (2011). Methodological criteria for the internal validity and utility of practice oriented research. *Quality & Quantity, 45*(1), 145-156.

Boals, A., Riggs, S. A., & Kraha, A. (2013). Coping with stressful or traumatic events: What aspects of trauma reactions are associated with health outcomes?. *Stress & Health: Journal of the International Society for the Investigation of Stress, 29*(2), 156-163.

Bodenmann, G., Atkins, D. C., Schär, M., & Poffet, V. (2010). The association between daily stress and sexual activity. *Journal of Family Psychology, 24*(3), 271-279.

Bourassa, D. (2009). Compassion fatigue and the adult protective services social worker. *Journal of Gerontological Social Work, 52*(3), 215-229.

Boyle, D. (2011). Countering compassion fatigue: A requisite nursing agenda. *Online Journal of Issues In Nursing, 16*(1), 2. doi:10.3912/OJIN.Vol16No01Man02

Briere, J. (2011). *Trauma Symptom Inventory-2A Professional Manual*. Odessa, FL: Psychological Assessment Resources.

Brigham and Women Hospital. (2011). *Sleep disorders linked to poor health and reduced occupational performance in police officers.* Retrieved on August 26, 2012 from http://www.brighamandwomens.org/about_bwh/publicaffairs/default.aspx

Brewin, C. R. (1996). Cognitive processing of adverse experiences. *International Review Of Psychiatry, 8*(4), 333-339.

Bureau of Justice Statistics. (2013). Retrieved on September 16, 2013 from http://www.bjs.gov/

Burke, R. J. (1993). Work-family stress, conflict, coping and burnout in police officers. *Stress Medicine. 9,* 171-180.

Caplan, J. (2003). Police cynicism: Police survival tool? *The Police Journal, 76,* 304 – 313.

Cartwright, T. (2009). Making changes. In , *Changing Yourself & Your Reputation* (pp. 11-12). Retrieved on August 27, 2012 from http://web.ebscohost.com.ezp.waldenulibrary.org/

Caruso, K. (2013). *Police Suicide Prevention and Awareness.* Retrieved on December 16, 2013 from http://www.suicide.org/police-suicide-prevention-and-awareness.html

Center for Disease Control and Prevention. (2009). *National suicide statistic at glance.* Retrieved on October 22, 2012 from http://www.cdc.gov/ViolencePrevention/suicide/statistics.html

Chereji, S. V., Pintea, S., & David, D. (2012). The relationship of anger and cognitive distortions with violence in violent offenders' population: A meta-analytic review. *European Journal of Psychology Applied to Legal Context, 4*(1), 59-77.

Chiesa, A., & Serretti, A. (2009). Mindfulness-based stress reduction for stress management in healthy people: a review and meta-analysis. *Journal of Alternative and Complementary Medicine, 15*(5), 593-600.

Chongruksa, D., Parinyapol, P., Sawatsri, S., & Pansomboon, C. (2012). Efficacy of

eclectic group counseling in addressing stress among Thai police officers in terrorist situations. *Counselling Psychology Quarterly, 25*(1), 83-96.

Chopko, B. A. (2010). Posttraumatic distress and growth: An empirical study of police officers. *American Journal of Psychotherapy, 64*(1), 55-72.

Chopko, B. A. (2011). Walk in balance: Training crisis intervention team police officers As compassionate warriors. *Journal of Creativity in Mental Health, 6*(4), 315-328.

Churchill, S., & Bayne, R. (1998). Psychological type and conceptions of empathy in experienced counsellors. *Counselling Psychology Quarterly, 11*(4), 379-390.

Ciampi, D. F. (2012). Anticipated attitudes for providing psychological services to survivors of major terrorist incidents. *Psychological Trauma: Theory, Research, Practice, and Policy, 4*(2), 237-243.

Clark, D. W., White, E. K., & Violanti, J. M. (2012). Law enforcement suicide: Current knowledge and future directions. *The Police Chief*, 79, 48–51

Clark, R. & O'Hara, A. (2013). *2012 Police suicides: The NSOPS study*. Retrieved on December 16, 2013 from http://www.policesuicidestudy.com/id16.html

Coetzee, S., & Klopper, H. C. (2010). Compassion fatigue within nursing practice: A concept analysis. *Nursing & Health Sciences, 12*(2), 235-243.

Cohen, I. (2008). Improving time-critical decision making in life-threatening situations: observations and insights. *Decision Analysis, 5*(2), 100-110.

Cohen, L., Manion, L., & Morrison, K. (2007). *Research methods in education* (6th ed.). London, UK: Routledge.

Cole, P. C., & Putnam, F. W. (1992). Effect of incest on self and social functioning: A developmental psychopathology perspective. *Journal of Consulting and Clinical*

Psychology, 60, 174–184.

Colwell, L. H., Lyons, J. M., Bruce, A., Garner, R. L., & Miller, R. S. (2011). Police officers' cognitive appraisals for traumatic events: Implications for treatment and training. *Applied Psychology In Criminal Justice, 7*(2), 106-132.

Condon, P., & Feldman Barrett, L. (2013). Conceptualizing and Experiencing Compassion. *Emotion*, doi:10.1037/a0033747.

Conner, K. R., Swogger, M. T., & Houston, R. J. (2009). A test of the reactive aggression-suicidal behavior hypothesis: Is there a case for proactive aggression?. *Journal of Abnormal Psychology, 118(1), 235-240.*

Cook, T.D. & Campbell, D.T., (1979). *Quasi-Experimentation: Design & Analysis Issues for Field Settings.* Boston: Houghton Mifflin Company.

Corsini, R. (2002). *The Dictionary of Psychology.* Brunner-Rutledge: New York.

Craig, C., & Sprang, G. (2010). Compassion satisfaction, compassion fatigue, and burnout in a national sample of trauma treatment therapists. *Anxiety, Stress & Coping, 23*(3), 319-339.

Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches (3rd edition)*. Los Angeles: Sage.

Cunha, D. (2014). *Reasons people become a police officer.* Retrieved on June 9, 2014 from http://work.chron.com/reasons-people-become-police-officer-8994.html

Davey, J., Obst, P., & Sheehan, M. (2000). Developing a profile of alcohol consumption patterns of police officers in a large scale sample of an Australian police service. *European Addiction Research, 6*(4), 205-212.

Davey, J. D., Obst, P. L., & Sheehan, M. C. (2001). It goes with the job: Officers' insights

into the impact of stress and culture on alcohol consumption within the policing occupation. *Drugs: Education, Prevention & Policy, 8*(2), 141-149.

Davidson, C. L., Wingate, L. R., Grant, D. M., Judah, M. R., & Mills, A. C. (2011). Interpersonal suicide risk and ideation: The influence of depression and social anxiety. *Journal of Social & Clinical Psychology, 30*(8), 842-855.

Davis, M. T., Witte, T. K., & Weathers, F. W. (2013). Posttraumatic stress disorder and suicidal ideation: The role of specific symptoms within the framework of the interpersonal-psychological theory of suicide. *Psychological Trauma: Theory, Research, Practice, and Policy*, doi:10.1037/a0033941.

Dempsey, J. S. & Forst, L.S. (2013). *Police* (2nd ed.). Retrieved from http://books.google.com

Devilly, G., Wright, R., & Varker, T. (2009). Vicarious trauma, secondary traumatic stress or simply burnout? Effect of trauma therapy on mental health professionals. *Australian & New Zealand Journal of Psychiatry, 43*(4), 373-385.

Donofrio, N. (2010). Exact change. *Research Technology Management, 53*(6), 12-17.

Drescher, K. D., Rosen, C. S., Burling, T. A., & Foy, D. W. (2003). Causes of death among male veterans who received residential treatment for PTSD. Journal Of Traumatic Stress, 16(6),
535-543.

Dwyer, M. L., Deshields, T. L., & Nanna, S. K. (2012). Death is a part of life: Considerations for the natural death of a therapy patient. *Professional Psychology: Research and Practice, 43*(2), 123-129.

EBSCO Host (2012a). *Academic Search Complete/Premier*. Retrieved on June 24, 2012

from http://www.ebscohost.com/academic/academic-search-complete

EBSCO Host (2012b). *SocINDEX with Full Text*. Retrieved on June 24, 2012 from http://www.ebscohost.com/public/socindex

EBSCO Host (2012c). *Sage Journals*. Retrieved on June 24, 2012 from http://online.sagepub.com.ezp.waldenulibrary.org/search

Edwards, J. (2006). Law enforcement officers involved in domestic violence as batterers: An integrative treatment model. *Journal of Couple & Relationship Therapy, 5*(1), 27-50.

Evans, B. J. & Coman, G. J. (1993). General versus specific measures of occupational stress: An Australian police survey. *Stress Medicine. 9,* 11-20.

Finkelhor, D., Ormrod, R.K., & Turner, H. (2009). Lifetime assessment of poly-victimization in a national sample of children and youth. *Child Abuse & Neglect, 33,* 403-411.

Foley, T., & Terrill, W. (2008). Police comfort and victims. *Victims & Offenders, 3*(2-3), 192-216.

Follette, V. M., Polusny, M. M., & Milbeck, K. (1994). Mental health and law enforcement professionals: Trauma history, psychological symptoms, and impact of providing services to child sexual abuse survivors. *Professional Psychology: Research and Practice*, *25*(3), 275-282.

Freyd, J. J. (2012). What is a betrayal trauma? What is betrayal trauma theory? Retrieved on December 9, 2013 from http://pages.uoregon.edu/dynamic/jjf/defineBT.html.

Frie, R. (2010). Compassion, dialogue, and context: On understanding the other. *International Journal of Psychoanalytic Self Psychology*, *5*(4), 451-466.

Freyd, J. J., DePrince, A. P., & Gleaves, D. (2007). The state of betrayal trauma theory: Reply to McNally (2007). Conceptual issues and future directions. *Memory, 15,* 295–311.

Gagnon, A., Davidson, S. I., Cheifetz, P. N., Martineau, M., & Beauchamp, G. (2009). Youth suicide: A psychological autopsy study of completers and controls. *Vulnerable Children & Youth Studies, 4*(1), 13-22.

Galatzer-Levy, I. R., Brown, A. D., Henn-Haase, C., Metzler, T. J., Neylan, T. C., & Marmar, C. R. (2013). Positive and negative emotion prospectively predict trajectories of resilience and distress among high-exposure police officers. *Emotion, 13*(3), 545-553.

Garner, R. (2008). Police stress: Effects of criticism management training on health. *Applied Psychology in Criminal Justice, 4*(2), 244-259.

Gibbs, J. C., Ruiz, J., & Klapper-Lehman, S. A. (2014). Police officers killed on duty: Replicating and extending a unique look at officer deaths. *International Journal Of Police Science & Management, 16*(4), 277-287.

Graf, F. A. (1986). The relationship between social support and occupational stress among police officers. *Journal of Police Science and Administration, 14,* 178—186.

Gershon, R.M, Barocas, B., Canton, A. N., Li, X., & Vlahov, D. (2009). Mental, physical, and behavioral outcomes associated with perceived work stress in police officers. *Criminal Justice and Behavior, 36(3),* 275 – 289.

Gersons, B. P.R. (1989). Patterns of PTSD among police officers following shooting incidents: A two-dimensional model and treatment implications. *Journal of Traumatic Stress, 2,* 247–257.

Gillet, N., Huart, I., Colombat, P., & Fouquereau, E. (2013). Perceived organizational support, motivation, and engagement among police officers. *Professional Psychology: Research and Practice, 44*(1), 46-55.

Goleman, D. (2007). *Three kinds of empathy: cognitive, emotional, compassionate.* Retrieved on September 10, 2013 from http://danielgoleman.info/three-kinds-of-empathy-cognitive- emotional-compassionate/

Gomez, J. (2002). SRT tackles life-threatening situations. *Soldiers, 57*(12), 40

Goodell T, & Nail L. (2005). Operationalizing symptom distress in adults with cancer: a literature synthesis. *Oncology Nursing Forum, 32*(2), 42 – 47.

Greenberg, J., Tesfazion, A. A., & Robinson, C. S. (2012). Screening, diagnosis, and treatment of depression. *Military Medicine,* 60-66

Groome, D. (1999). *An introduction to cognitive psychology: processes and disorders.* New York, NY: Psychology Press.

Grover, K. E., Green, K. L., Pettit, J. W., Monteith, L. L., Garza, M. J., & Venta, A. (2009). Problem solving moderates the effects of life event stress and chronic stress on suicidal behaviors in adolescence. *Journal of Clinical Psychology, 65*(12), 1281-1290.

Hanafi, S. Bahora, M., Demir, B. N. & Compton, M. T. (2008). Incorporating crisis intervention team (CIT) knowledge and skills into the daily work of police officers: A focus group study. *Journal of Community Mental Health, 44,* 427–432.

Hanson, R. (2003). Empathy deficits of sexual offenders: A conceptual model. *Journal of Sexual Aggression, 9*(1), 13-23.

Harr, C. (2013). Promoting workplace health by diminishing the negative impact of compassion fatigue and increasing compassion satisfaction. *Social Work &*

Christianity, *40*(1), 71-88.

Harr, C., & Moore, B. (2011). Compassion fatigue among social work students in field placements. *Journal of Teaching in Social Work, 31*(3), 350-363.

Harvey, A. G., & Tang, N. Y. (2012). (Mis)perception of sleep in insomnia: A puzzle and a resolution. *Psychological Bulletin, 138*(1), 77-101.

Hedtke, K. A., Ruggiero, K. J., Fitzgerald, M. M., Zinzow, H. M., Saunders, B. E., Resnick, H. S., & Kilpatrick, D. G. (2008). A longitudinal investigation of interpersonal violence in relation to mental health and substance use. *Journal of Consulting And Clinical Psychology*, *76*(4), 633-647.

Hogan, R. (1969). Development of an empathy scale. *Journal of Consulting and Clinical Psychology*, *33*, 307-316.

Hollon, S. D., & DiGiuseppe, R. (2011). Cognitive theories of psychotherapy. In J. C. Norcross, G. R. VandenBos, D. K. Freedheim (Eds.), *History of psychotherapy: Continuity and Change* (2nd ed.) (pp. 203-241). American Psychological Association. doi:10.1037/12353-007

Horesh, D., Solomon, Z. Z., Zerach, G. G., & Ein-Dor, T. T. (2011). Delayed-onset PTSD among war veterans: the role of life events throughout the life cycle. *Social Psychiatry & Psychiatric Epidemiology*, *46*(9), 863-870.

Hu, L.T., & Bentler, P.M. (1998). Fit indices in covariance structure modeling: Sensitivity to under-parameterized model misspecification. *Psychological Methods, 3*(4), 424- 453.

Huddleston, L., Stephens, C., & Paton, D. (2007). An evaluation of traumatic and organizational experiences on the psychological health of New Zealand police recruits.

Work: Journal of Prevention, Assessment & Rehabilitation, 28(3), 199-207.

Huggard, P., & Dixon, R. (2011). "Tired of Caring": The impact of caring on resident doctors. *Australasian Journal of Disaster & Trauma Studies, 2011*(3), 105-111.

Huggins, C. (2012). Traffic stop encounters: Officer and citizen race and perceptions of police propriety. *American Journal of Criminal Justice, 37*(1), 92-110.

Hunter, S. V. (2012). Walking in sacred spaces in the therapeutic bond: Therapists' experiences of compassion satisfaction coupled with the potential for vicarious traumatization. *Family Process, 51*(2), 179-192.

Husain, W., & Sajjad, R. (2012). Depression, anxiety and stress among married & unmarried police officers. *FWU Journal of Social Sciences, 6*(1), 43-47.

Ilesanmi, O., & Eboiyehi, F. (2012). Sexual violence and vicarious trauma: A case study. *Gender & Behaviour, 10*(1), 4443-4469.

Janoff-Bulman, R. (2004). Posttraumatic growth: Three explanatory models. *Psychological Inquiry, 15*(1), 30-34.

Jasinski, J. L. (2003). Police involvement in incidents of physical assault: Analysis of the redesigned national crime victimization survey. *Journal of Family Violence, 18*(3), 143-150.

Javidi, H. H., & Yadollahie, M. M. (2012). Post-traumatic Stress Disorder. *International Journal of Occupational & Environmental Medicine, 3*(1), 2-9.

Jenson, J. (2007). Aggression and violence in the United States: Reflections on the Virginia Tech shootings. *Social Work Research, 31*(3), 131-134.

Jiménez-Buedo, M., & Miller, L. M. (2010). Why a trade-off? The relationship between the external and internal validity of experiments. *Theoria, 25*(3), 301-321.

Johal, R., Lippmann, S., Smock, W., & Gosney, C. (2010). Guns: dangerous, especially for suicide, and costly for America. *Psychiatry (1550-5952), 7*(2), 14-15.

Johnson, K. (2013, July). Heart attacks a rising deadly weapon among cops. *USA Today,* Retrieved on December 16, 2013 from http://www.usatoday.com

Johnson, R. (2011). Predicting officer physical assaults at domestic assault calls. *Journal of Family Violence, 26*(3), 163-169.

Jordan, K. (2010). Vicarious trauma: Proposed factors that impact clinicians. *Journal of Family Psychotherapy, 21*(4), 225-237.

Kaariainen, J., Lintonen, T., Laitinen, A., & Pollock, J. (2008). The 'Code of Silence': Are self-report surveys a viable means for studying police misconducts?. *Journal of Scandinavian Studies in Criminology & Crime Prevention, 9*(2), 86-96.

Kapusta, N. D., Voracek, M. M., Etzersdorfer, E. E., Niederkrotenthaler, T. T., Dervic, K. K., Plener, P. L., & Sonneck, G. G. (2010). Characteristics of police officer suicides in the Federal Austrian Police Corps. *Crisis: The Journal of Crisis Intervention and Suicide Prevention, 31*(5), 265-271.

Kendall-Tackett, K. (2009). Psychological trauma and physical health: A psychoneuroimmunology approach to etiology of negative health effects and possible interventions. *Psychological Trauma: Theory, Research, Practice, and Policy, 1*(1), 35-48.

Kessler, R. C., Sonnega, A., Bromet, E., Hughes, M., & Nelson, C. B. (1995). Posttraumatic stress disorder in the national comorbidity survey. *Archives of General Psychiatry, 52,* 1048–1060.

Kimbrel, N. A., Steffen, L. E., Meyer, E. C., Kruse, M. I., Knight, J. A., Zimering, R. T.,

& Gulliver, S. B. (2011). A revised measure of occupational stress for firefighters: Psychometric properties and relationship to posttraumatic stress disorder, depression, and substance abuse. *Psychological Services, 8*(4), 294-306.

Kleim, B., Ehlers, A., & Glucksman, E. (2012). Investigating cognitive pathways to psychopathology: Predicting depression and posttraumatic stress disorder from early responses after assault. *Psychological Trauma: Theory, Research, Practice, and Policy, 4*(5), 527-537.

Koller, G., Preuss, U., Bottlender, M., Wenzel, K., & Soyka, M. (2002). Impulsivity and aggression as predictors of suicide attempts in alcoholics. *European Archives of Psychiatry and Clinical Neuroscience,* 252(4), 155-160.

Komarovskaya, I., Brown, A. D., Galatzer-Levy, I. R., Madan, A., Henn-Haase, C., Teater, J., &... Chemtob, C. M. (2014). Early physical victimization is a risk factor for posttraumatic stress disorder symptoms among Mississippi police and firefighter first responders to Hurricane Katrina. *Psychological Trauma: Theory, Research, Practice, and Policy, 6*(1), 92-96.

Krysinska, K., Lester, D., & Martin, G. (2009). Suicidal behavior after a traumatic event. *Journal of Trauma Nursing, 16*(2), 103-110.

Kureczka, A. (2002*). Surviving Assaults: After the Physical Battle Ends, the Psychological Battle Begins.* Washington, District of Columbia, US: US Department of Justice (DOJ), Federal Bureau of Investigation (FBI). Retrieved on September 5, 2012 from http://web.ebscohost.com.ezp.waldenulibrary.org/ehost.

Lamis, D. A., Malone, P. S., Langhinrichsen-Rohling, J., & Ellis, T. E. (2010). Body investment, depression, and alcohol use as risk factors for suicide proneness in college

students. *Crisis: The Journal of Crisis Intervention and Suicide Prevention, 31*(3), 118-127.

Lanyon, R. I. & Carle, A. C. (2007). Internal and external validity of scores on the balanced inventory of desirable responding and the Paulhus deception scales. *Educational and Psychological Measurement, 67*(5), 859 – 876.

Lauvrud, C., Nonstad, K., & Palmstierna, 2. (2009). Occurrence of posttraumatic stress symptoms and their relationship to professional quality of life (ProQoL) in nursing staff at a forensic psychiatric security unit: a cross-sectional study. *Health & Quality of Life Outcomes, 7*(31), 1 -6.

Laufer, R. S., Gallops, M. S., & Frey-Wouters, E. (1984). War stress and trauma: The Vietnam veteran experience. *Journal of Health & Social Behavior, 25*(1), 65-85.

Lawson, L., & Rowe, S. (2009). Violence. *Journal of Forensic Nursing, 5*(3), 119-123.

Leary,M. R., Tate, E. B., Adams, C. E., Batts Allen, A., & Hancock, J. (2007). Self-compassion and reactions to unpleasant self-relevant events: The implications of treating oneself kindly. *Journal of Personality and Social Psychology, 92,* 887–904.

Leedy, P. D., & Ormrod, J.E. (2005). *Practical Research* (8th ed.). Columbus, OH: Pearson Merrill Prentice Hall.

Leino, T., Eskelinen, K., Summala, H., & Virtanen, M. (2011). Work-related violence, debriefing and increased alcohol consumption among police officers. *International Journal of Police Science & Management, 13*(2), 149-157

Leonard, R., & Alison, L. (1999). Critical incident stress debriefing and its effects on coping strategies and anger in a sample of Australian police officers involved in shooting incidents. *Work & Stress,* 13(2), 144-161

Lietz, C. A. (2011). Empathic action and family resilience: A narrative examination of the benefits of helping others. *Journal of Social Service Research, 37*(3), 254-265.

Lindsay, L., & Shelley, K. (2009). Social and stress-related influences of police officers' alcohol consumption. *Journal of Police and Criminal Psychology, 24,* 87–92.

Louw, G. J., & Viviers, A. (2010). An evaluation of a psychosocial stress and coping model in the police work context. *SAJIP: South African Journal of Industrial Psychology, 36*(1), 1-11.

Lucas, T., Weidner, N., & Janisse, J. (2012). Where does work stress come from? A generalizability analysis of stress in police officers. *Psychology & Health, 27*(12), 1426-1447.

Madden, L. T., Duchon, D., Madden, T. M., & Ashmos-Plowman, D. (2012). Emergent organizational capacity for compassion. *Academy of Management Review, 37*(4), 689-708.

Maia, D. B., Marmar, C. R., Henn-Haase, C., Nóbrega, A., Fiszman, A., Marques-Portella, C., & ... Figueira, I. (2011). Predictors of PTSD symptoms in Brazilian police officers: the synergy of negative affect and peritraumatic dissociation. *Revista Brasileira De Psiquiatria, 33*(4), 362-366.

Malmin, M. (2012). Changing police subculture. *FBI Law Enforcement Bulletin, 81*(4), 14-19.

Martin, C., Cromer, L., DePrince, A. P., & Freyd, J. J. (2011). The role of cumulative trauma, betrayal, and appraisals in understanding trauma symptomatology. *Psychological Trauma: Theory, Research, Practice, And Policy*, doi:10.1037/a0025686

Maurage, P., Grynberg, D., Noël, X., Joassin, F., Philippot, P., Hanak, C., & ... Campanella, S. (2011). Dissociation between affective and cognitive empathy in alcoholism: A specific deficit for the emotional dimension. *Alcoholism: Clinical and Experimental Research, 35*(9), 1662-1668.

McCaslin, S. E., Rogers, C. E., Metzler, T. J., Best, S. R., Weiss, D. S., Fagan, J. A., et al. (2006). The impact of personal threat on police officers' responses to critical incident stressors. *Journal of Nervous and Mental Disease, 194,* 591–597.

McCann L. & Pearlman L. A (1990). Vicarious traumatization: A framework for understanding the psychological effects of working with victims. *Journal of Traumatic Stress, 3,* 131–149.

McGarvey B. B. (2001). Can models of post-traumatic stress disorder contribute to the application of cognitive therapy by nurse therapists when dealing with individuals affected by the Omagh bombing? An overview. *Journal of Psychiatric & Mental Health Nursing, 8*(6), 477 - 487.

McMahon, S. D., Felix, E. D., Halpert, J. A., & Petropoulos, L. N. (2009). Community violence exposure and aggression among urban adolescents: Testing a cognitive mediator model. *Journal of Community Psychology, 37*(7), 895-910.

Ménard, K. S. & Arter, M. L. (2013). Police officer alcohol use and trauma symptoms: Associations with critical incidents, coping, and social stressors. *International Journal of Stress Management, 20*(1), 37-56.

Miller, L. (2005). Police officer suicide: Causes, prevention, and practical intervention strategies. *International Journal of Emergency Mental Health, 7*(2), 101-114.

Mishara, B. L., & Martin, N. (2012). Effects of a comprehensive police suicide

prevention program. Crisis: *The Journal of Crisis Intervention And Suicide Prevention, 33*(3), 162-168.

Mishra, B., Mehta, S. C., Sinha, N., Shukla, S., Ahmed, N., & Kawatra, A. (2011). Evaluation of work place stress in health university workers: A study from rural India. *Indian Journal of Community Medicine, 36*(1), 39-44.

Miyazaki, K., Itoh, N., Ohyama, S., Kadota, K., & Oishi, K. (2013). Continuous exposure to a novel stressor based on water aversion induces abnormal circadian locomotor rhythms and sleep-wake cycles in mice. *Plos ONE, 8*(1), doi:10.1371/journal.pone.0055452

Murphy, C. M., Taft, C. T., & Eckhardt, C. I. (2007). Anger problem profiles among partner violent men: Differences in clinical presentation and treatment outcome. *Journal of Counseling Psychology*, *54*(2), 189-200.

Murphy, R. A., Rosenheck, R. A., Berkowitz, S. J., & Marans, S. R. (2005). Acute service delivery in a police-mental health program for children exposed to violence and trauma. *Psychiatric Quarterly*, *76*(2), 107-121.

Murphy, S. A. (2008). The role of emotions and transformational leadership on police culture: an autoethnographic account. *International Journal of Police Science & Management, 10*(2), 165-178.

National Institute for Clinical Excellence. (2012). Retrieved on August 26, 2012 from http://www.nice.org.uk/

National Institute for Occupational Safety and Health. (1999). *Stress at work* (DHHS, NIOSH Publication No. 99–101). Retrieved on September 15, 2013 from http://www.cdc.gov/niosh

National Law Enforcement Officers Memorial. (2013). Facts & figures. Retrieved on December 16, 2013 from http://www.nleomf.org/facts/

National Institute of Mental Health. (2014). *Traumatic Stress Research Program*. Retrieved on June 9, 2014 from http://www.nimh.nih.gov/about/organization/datr/traumatic-stress-research-and-dimensional-measurement-and-intervention-program/traumatic-stress-research-program.shtml

Neff, K. D. (2003). The development and validation of a scale to measure self-compassion. *Self & Identity*, *2*(3), 223.

Neisser, U. (1967). *Cognitive Psychology*. New York: Appleton-Century-Fox.

Nepon, J., Belik, S., Bolton, J., & Sareen, J. (2010). The relationship between anxiety disorders and suicide attempts: Findings from the National Epidemiologic Survey on Alcohol and Related Conditions. *Depression & Anxiety (1091-4269), 27*(9), 791-798

Nietlisbach, G., & Maercker, A. (2009). Social cognition and interpersonal impairments in trauma survivors with PTSD. *Journal of Aggression, Maltreatment & Trauma, 18*(4), 382-402.

Njuho, P. M., & Davids, A. (2012). Patterns of physical assaults and the state of healthcare systems in South African communities: findings from a 2008 population-based national survey. *South African Journal of Psychology*, 42(2), 270-281.

Owens, G. P., Chard, K. M., & Cox, T. (2008). The relationship between maladaptive cognitions, anger expression, and posttraumatic stress disorder among veterans in residential treatment. *Journal of Aggression, Maltreatment & Trauma*, *17*(4), 439-452.

Packman, D. (2011, April). *2010 NPMSRP police misconduct statistical report: Draft.* Retrieved on September 9, 2013 from http://www.policemisconduct.net/2010-npmsrp-police-misconduct-statistical-report/

Panagioti, M., Gooding, P., & Tarrier, N. (2009). Post-traumatic stress disorder and suicidal behavior: A narrative review. *Clinical Psychology Review, 29*, 471– 482.

Pangaro, J. (2010). The tragic toll of police work. *FBI Law Enforcement Bulletin, 79*(2), 12-14.

Papazoglou, K. (2013). Conceptualizing police complex spiral trauma and its applications in the police field. *Traumatology*, *19*(3), 196-209.

Papazoglou, K., & Andersen, J. P. (2014). A guide to utilizing police training as a tool to promote resilience and improve health outcomes among police officers. *Traumatology: An International Journal, 20*(2), 103-111.

Papazoglou, K., & Andersen, J. P. (2014). Exploring compassion fatigue and compassion satisfaction among police. *Exploring Compassion Fatigue and Compassion Satisfaction Among Police*, doi:10.1037/e559062014-001

Pasciak, A. R., & Kelley, T. M. (2013). Conformity to traditional gender norms by male police officers exposed to trauma: Implications for critical incident stress debriefing. *Applied Psychology In Criminal Justice, 9*(2), 137-156.

Paulhus, D. (1998). Paulhus Deception Scales (PDS): The balanced inventory of desirable responding-7. North Tonawanda, NY: Multi-Health Systems, Inc.

Paulhus, D. (1999). *Paulhus Deception Scales: Balanced Inventory of Desirable Responding Version 7*. Retrieved on July 22, 2012 from Mental Measurements Yearbook.

Perin, M. (2012). Hazards of being a 9-1-1 dispatcher. *Officer.Com*, Retrieved on September 10, 2013 from http://search.proquest.com/docview/1423592966?accountid=14872.

Pickett, W., Iannotti, R., Simons-Morton, B., & Dostaler, S. (2009). Social environments and physical aggression among 21,107 students in the United States and Canada. *Journal of School Health, 79*(4), 160-168.

Pigeon, W. R. (2010). Treatment of adult insomnia with cognitive-behavioral therapy. *Journal of Clinical Psychology*, *66*(11), 1148-1160.

Plonsky, L., & Gass, S. (2011). Quantitative research methods, study quality, and outcomes: The case of interaction research. *Language Learning, 61*(2), 325-366.

Pollard, J. (2011). Seen, seared and sealed: Trauma and the visual presentation of September 11. *Health, Risk & Society, 13*(1), 81-101.

Pommier, E. A. (2011). The compassion scale. *PhD Dissertation*. Retrieved on December 30, 2012, from http://repositories.lib.utexas.edu/bitstream/handle/2152/ETD-UT-2010-12-2213/

Potrata, B., Cavet, J., Blair, S., Howe, T., & Molassiotis, A. (2011). Understanding distress and distressing experiences in patients living with multiple myeloma: An exploratory study. *Psycho-Oncology*, *20*(2), 127-134.

Pritam, A. (2011). Retiring gracefully. *Occupational Health, 63*(10), 14-15.

Prochaska, J. O. & Norcross, J. C. (1999). *Systems of Psychotherapy: A Transtheoretical Analysis, (4th ed.).* Pacific Grove, CA: Brooks/Cole Publishing Company.

Ray, S. L., Wong, C., White, D., & Heaslip, K. (2013). Compassion satisfaction, compassion fatigue, work life conditions, and burnout among frontline mental health

care professionals. *Traumatology, 19*(4), 255-267.

Regehr, C., LeBlanc, V., Jelley, R., Barath, I., & Daciuk, J. (2007). Previous trauma exposure and PTSD symptoms as predictors of subjective and biological response to stress. *Canadian Journal of Psychiatry, 52*(10), 675-683.

Resick, P. A. (2001). *Stress and Trauma.* Philadelphia: Taylor and Francis.

Richard-Devantoy, S., Gorwood, P., Annweiler, C., Olié, J., Le Gall, D., & Beauchet, O. (2012). Suicidal behaviors in affective disorders: A deficit of cognitive inhibition?. *The Canadian Journal of Psychiatry*, *57*(4), 254-262.

Rosenberg, L. (2011). Addressing trauma in mental health and substance use treatment. *Journal of Behavioral Health Services & Research, 38*(4), 428-431.

Ross, G., & Sternquist, M. (2012). Methamphetamine exposure and chronic illness in police officers: Significant improvement with sauna-based detoxification therapy. *Toxicology & Industrial Health, 28*(8), 758-768.

Roufa, T. (2014) *Five reasons to be a police officer.* Retrieved on June 9, 2014 from http://criminologycareers.about.com/od/Work_Environment/a/Five-reasons-to-be-a-police-officer.htm?p=1

Ruisel, I. (2010). Human knowledge in the context of cognitive psychology. *Studia Psychologica*, *52*(4), 267-284.

Sadeh, N., Javdani, S., Finy, M., & Verona, E. (2011). Gender differences in emotional risk for self- and other-directed violence among externalizing adults. *Journal of Consulting and Clinical Psychology, 79*(1), 106-117.

Salloum, A., Carter, P., Burch, B., Garfinkel, A., & Overstreet, S. (2011). Impact of exposure to community violence, Hurricane Katrina, and Hurricane Gustav on

posttraumatic stress and depressive symptoms among school age children. *Anxiety, Stress & Coping, 24*(1), 27-42.

Sammartino, E. (2012). Are you at risk for compassion fatigue? *Michigan Nurse, 85*(3), 10-11.

Santos, A., Leather, P., Dunn, J., & Zarola, A. (2009). Gender differences in exposure to co-worker and public-initiated violence: Assessing the impact of work-related violence and aggression in police work. *Work & Stress, 23*(2), 137-154.

Sato, M., Yamadera, W., Matsushima, M., Itoh, H., & Nakayama, K. (2010). Clinical efficacy of individual cognitive behavior therapy for psychophysiological insomnia in 20 outpatients. *Psychiatry & Clinical Neurosciences, 64*(2), 187-195.

Sautter, F. J., Armelie, A. P., Glynn, S. M., & Wielt, D. B. (2011). The development of a couple-based treatment for PTSD in returning veterans. *Professional Psychology: Research and Practice, 42*(1), 63-69.

Schlosser, L. Z., Safran, D. A., & Sbaratta, C. A. (2010). Reasons for choosing a correction officer career. *Psychological Services, 7*(1), 34-43.

Schneider, B. (2009). Substance use disorders and risk for completed suicide. *Archives of Suicide Research, 13*(4), 303-316.

Scott-Storey, K., Wuest, J., & Ford-Gilboe, M. (2009). Intimate partner violence and cardiovascular risk: Is there a link?. *Journal of Advanced Nursing, 65*(10), 2186-2197.

Seklecki, R., & Paynich, R. (2007). A national survey of female police officers: An overview of findings. *Police Practice & Research: An International Journal, 8*(1), 17-30.

Severn, M. S., Searchfield, G. D., & Huggard, P. (2012). Occupational stress amongst

audiologists: Compassion satisfaction, compassion fatigue, and burnout. *International Journal of Audiology, 51*(1), 3-9.

Shamay-Tsoory, S. G., Tomer, R. R., Goldsher, D. D., Berger, B. D., & Aharon-Peretz, J. J. (2004). Impairment in cognitive and affective empathy in patients with brain lesions: Anatomical and Cognitive Correlates. *Journal of Clinical & Experimental Neuropsychology, 26(*8), 1113-1127.

Shaw, J. (2007). The acute traumatic moment-psychic trauma in war: psychoanalytic perspectives. *The Journal of the American Academy of Psychoanalysis and Dynamic Psychiatry, 35*(1), 23-38.

Shay-Lee, B., Stein, M. B., Asmundson, G. G., & Sareen, J. (2009). Relation between traumatic events and suicide attempts in Canadian military personnel. *Canadian Journal of Psychiatry. 54*(2), 93-104.

Sherman, M. D. (2006). Timely new resource to support police officers' teenagers. *Women Police, 40*(4), 11-12.

Shockey-Eckles, M. L. (2011). Police culture and the perpetuation of the officer shuffle: The paradox of life behind "the blue wall.". *Humanity & Society, 35*(3), 290-309.

Sijaric-Voloder, S., & Capin, D. (2008). Application of cognitive behavior therapeutic techniques for prevention of psychological disorders in police officers. *Healthmed, 2*(4), 288-292.

Sinyor, M., Howlett, A., Cheung, A. H., & Schaffer, A. (2012). Substances used in completed suicide by overdose in Toronto: An observational study of coroner's data. *Canadian Journal of Psychiatry, 57*(3), 184-191.

Slocum-Gori, S., Hemsworth, D., Chan, W., Carson, A., & Kazanjian, A. (2013).

Understanding compassion satisfaction, compassion fatigue and burnout: A survey of the hospice palliative care workforce. *Palliative Medicine, 27*(2), 172-178.

Smalley, S. (2006, July). 75 officers failed city drug tests: Cocaine use most prevalent, raising concern. *Boston Globe*. Retrieved on October 15, 2012 from http://www.boston.com/news/local/articles/2006/07/30/75

Smith, A. (2006). Cognitive empathy and emotional empathy in human behavior and evolution. *Psychological Record, 56*(1), 3-21

Solan, G. J., & Casey, J. M. (2003, June). Police work addiction: A cautionary tale. *FBI Law Enforcement Bulletin.* pp. 13-17. doi:10.1037/e312592004-003.

Solso, R. L. (1998). *Cognitive Psychology.* (5th ed.). Boston: Allyn and Bacon.

Sprang, G., Clark, J. J., & Whitt-Woosley, A. (2007). Compassion fatigue, compassion satisfaction, and burnout: Factors impacting a professional's quality of life. *Journal of Loss & Trauma, 12*(3), 259-280.

Stamm, B.H. (2010). The Concise ProQOL Manual. Pocatello, ID: ProQOL.org.

Straker, G. G., Watson, D. D., & Robinson, T. T. (2002). Trauma and disconnection: a trans-theoretical approach. *International Journal of Psychotherapy, 7*(2), 145-158.

Tang, T., & Hammontree, M. L. (1992). The effects of hardiness, police stress, and life stress on police officers' illness and. *Public Personnel Management, 21*(4), 493.

The Dalai Lama. (1998). *The Art of Happiness.* New York: Riverhead Books.

Thomas, J. S., Ditzfeld, C. P., & Showers, C. J. (2013). Compartmentalization: A window on the defensive self. *Social & Personality Psychology Compass, 7*(10), 719-731.

Thompson, A. (2013). How schwartz rounds can be used to combat compassion fatigue.

Nursing Management - UK, 20(4), 16-20.

Thompson, B., & Waltz, J. (2008). Self-compassion and PTSD symptom severity. *Journal of Traumatic Stress, 21*(6), 556-558.

Tiet, Q. Q., Rosen, C., Cavella, S., Moos, R. H., Finney, J. W., & Yesavage, J. (2006). Coping, symptoms, and functioning outcomes of patients with posttraumatic stress disorder. *Journal of Traumatic Stress, 19*(6), 799-811.

Trumpeter, N. N., Watson, P. J., O'Leary, B. J., & Weathington, B. L. (2008). Self-functioning and perceived parenting: Relations of parental empathy and love inconsistency with narcissism, depression, and self-esteem. *Journal of Genetic Psychology, 169*(1), 51-71.

Tsui, A. S. (2013). On compassion in scholarship: Why should we care?. *The Academy of Management Review, 38*(2), 167-180

Tuohy, A., Knussen, C., & Wrennall, M. J. (2005). Effects of age on symptoms of anxiety and depression in a sample of retired police officers. *Psychology and Aging, 20*(2), 202-210.

Tyson, J. (2007). Compassion fatigue in the treatment of combat-related trauma during wartime. *Clinical Social Work Journal, 35*(3), 183-192.

US Legal. (2013). *Definitions*. Retrieved on September 15, 2013 from www.uslegal.com

University at Buffalo (2008, September 29). Impact of stress on police officers' physical and mental health. *Science Daily*. Retrieved October 30, 2012, from http://www.sciencedaily.com- /releases/2008/09/080926105029.htm

van Gelderen, B. R., Bakker, A. B., Konijn, E. A., & Demerouti, E. (2011). Daily suppression of discrete emotions during the work of police service workers and

criminal investigation officers. *Anxiety, Stress & Coping, 24*(5), 515-537.

Violanti, J. M., Slaven, J. E., Charles, L. E., Burchfiel, C. M., Andrew, M. E., & Homish, G. G. (2011). Police and alcohol use: A descriptive analysis and associations with stress outcomes. *American Journal of Criminal Justice, 36*(4), 344-356.

Versola-Russo, J. M. (2005). Vicarious victims of trauma a literature review. *Journal of Police Crisis Negotiations, 5*(2), 59-80.

Van der Velden, P. G., Kleber, R. J., Grievink, L., & Yzermans, J. C. (2010). Confrontations with aggression and mental health problems in police officers: The role of organizational stressors, life-events and previous mental health problems. *Psychological Trauma: Theory, Research, Practice, and Policy, 2*(2), 135-144.

VanDyke, M., Erb, N., Arbuckle, S., & Martyny, J. (2009). A 24-hour study to investigate persistent chemical exposures associated with clandestine methamphetamine laboratories. *Journal of Occupational & Environmental Hygiene, 6*(2), 82-89.

van Gelderen, B. R., Bakker, A. B., Konijn, E. A., & Demerouti, E. (2011). Daily suppression of discrete emotions during the work of police service workers and criminal investigation officers. *Anxiety, Stress & Coping, 24*(5), 515-537.

Versola-Russo, J. M. (2005). Vicarious victims of trauma a literature review. *Journal of Police Crisis Negotiations, 5*(2), 59-80.

Violanti, J. M. (2012). *Shifts, extended work hours, and fatigue: An assessment of health and personal risks for police officers.* Department of Social & Preventive Medicine, School of Public Health and Health Professions, State University of NY at Buffalo, NY.

Violanti, J. M. (2010). Suicide or undetermined? A national assessment of police suicide death classification. *International Journal of Emergency Mental Health, 12*(2), 89–94.

Violanti, J. M. (1996). Violence turned inward: Police suicide in the workplace. In G. R. VandenBos, E. Q. Bulatao (Eds.), *Violence on the job: Identifying risks and developing solutions* (pp. 229-249). American Psychological Association. doi:10.1037/10215-012

Violanti, J. M., Andrew, M. E., Burchfiel, C. M., Dorn, J., Hartley, T., & Miller, D. B. (2006). Posttraumatic stress symptoms and subclinical cardiovascular disease in police officers. *International Journal of Stress Management, 13*(4), 541-554.

Violanti, J. M., Burchfiel, C. M., Hartley, T. A., Mnatsakanova, A., Fekedulegn, D., Andrew, M. E., & ... Vila, B. J. (2009). Atypical work hours and metabolic syndrome among police officers. *Archives of Environmental & Occupational Health, 64*(3), 194-201.

Violanti, J. M., Fekedulegn, D., Charles, L. E., Andrew, M. E., Hartley, T. A., Mnatsakanova, A., & Burchfiel, C. M. (2009). Suicide in police work: Exploring potential contributing influences. *American Journal of Criminal Justice, 34*(1-2), 41-53.

Violanti, J. M., Luenda, C. E., Hartley, T. A., Mnatsakanova, A., Andrew, M.E., Fekedulegn, D., Vila, B., & Burchfiel, C. M. (2008). Shift-work and suicide ideation among police officers. *American Journal of Industrial Medicine*, 51. 758–768.

Violanti, J. M., Slaven, J. E., Charles, L. E., Burchfiel, C. M., Andrew, M. E., & Homish, G. G. (2011). Police and alcohol use: A descriptive analysis and associations with stress outcomes. *American Journal of Criminal Justice, 36*(4), 344-356.

Vito, A. G., Higgins, G. E., Walsh, W. F., & Vito, G. F. (2012). The threat of methamphetamine use and production: evaluation results from a Kentucky law enforcement programme. *International Journal of Police Science & Management, 14*(3), 201-212.

Waite, S. (2011). Research methods in early childhood: an introductory guide. *British Educational Research Journal, 37*(3), 541-542.

Walsh, D. J., & Conway, V. (2011). Police governance and accountability: overview of current issues. *Crime, Law & Social Change, 55*(2/3), 61-86.

Wester, S. R., & Lyubelsky, J. (2005). Supporting the thin blue line: gender-sensitive therapy with male police officers. *Professional Psychology: Research and Practice, 36*(1), 51-58.

Wilczek-Rużyczka, E. (2011). Empathy vs. professional burnout in health care professionals. *Journal of US-China Medical Science, 8*(9), 526-532.

Wills, D. (2006). You're fired. *Government Executive, 38*(3), 54-64.

Wilson, H. W., Woods, B. A., Emerson, E., & Donenberg, G. R. (2012). Patterns of violence exposure and sexual risk in low-income, urban African American girls. *Psychology of Violence, 2*(2), 194-207.

Wingo, A. P., Fani, N., Bradley, B., & Ressler, K. J. (2010). Psychological resilience and neurocognitive performance in a traumatized community sample. *Depression & Anxiety (1091-4269), 27*(8), 768-774.

Witter, R., Martyny, J., Mueller, K., Gottschall, B., & Newman, L. (2007). Symptoms experienced by law enforcement personnel during methamphetamine lab investigations. *Journal of Occupational & Environmental Hygiene, 4*(12), 895-902.

Wolcott, D. B. (2006). Police and police departments. *Encyclopedia of American Urban History*. 581- 583. Retrieved on July 1, 2012 from SAGE Reference Online.

Woodward, S. (2011). Cognitive-Behavioral Therapy for insomnia in patients with cancer. *Clinical Journal of Oncology Nursing, 15*(4), 42-52.

Woody, R. (2005). The police culture: Research implications for psychological services. *Professional Psychology: Research And Practice, 36*(5), 525-529.

Woody, R. (2006). Family interventions with law enforcement officers. *American Journal of Family Therapy, 34*(2), 95-103.

World Health Organization. (2012). *Stopping the stigmatization of depression*. Retrieved on October 9, 2012 from http://www.who.int/en/

Zhou, J., Huang, X., Jin, X., Liang, J., Shui, R., & Shen, M. (2012). Perceived causalities of physical events are influenced by social cues. *Journal of Experimental Psychology: Human Perception and Performance, 38*(6), 1465-1475.

Table 1

TSI-2 Validity scales, Factors, and Clinical Scales and Subscales

Scales/Factors	Domain evaluated
Validity Scale	
1. Response Level (RL)	Bias toward underreporting trauma
2. Atypical Response (ATR)	Bias toward overreporting trauma
Factor	
1. Self-Disturbance (SELF)	Difficulties with negative models of self and others
2. Posttraumatic Stress (TRAUMA)	Stress related anxiety and dissociation
3. Externalization (EXT)	Dysfunctional or self-destructive behaviors
4. Somatization (SOMA)	Somatic distress
Clinical scale/subscale	
1. Anxious Arousal (AA)	Anxiety and hyperarousal symptoms
a. Anxiety (AA-A)	Indications of Anxiety
b. Hyperarousal (AA-H)	Posttraumatic hyperarousal
2. Depression (D)	Cognitive or somatic symptoms of depression
3. Anger (ANG)	Angry thoughts, feelings, and behaviors
4. Intrusive Experience (IE)	Relieving symptoms of posttraumatic stress
5. Defensive Avoidance (DA)	Avoiding upsetting thoughts
6. Dissociation (DIS)	Derealization and detachment
7. Somatic Preoccupation (SOM)	Somatic discomfort
a. Pain (SOM-P)	Body pains
b. General (SOM-G)	Generalized somatic illnesses
8. Sexual Disturbance (SXD)	Sexual problems and behaviors
a. Sexual Concerns (SXD-SC)	Negative thoughts about sexuality
b. Dysfunctional Sexual Behavior	Difficult sexual behavior
9. Suicidality (SUI)	Suicidal behaviors
a. Ideation (SUI-I)	Suicidal ideations
b. Behavior (SUI-B)	Suicidal actions
10. Insecure Attachment (IA)	Complications with close relationships
a. Relational Avoidance (IA-RA)	Discomfort with relationships
b. Rejection Sensitivity (IA-RS)	Rejection in relationships
11. Impaired Self-Awareness (ISR)	Difficulties in accessing identity
a. Reduced Self-Awareness (ISR-RSA)	Lack of personal sense of self
b. Other-Directedness (ISR-OD)	Overvaluing others view about self
12. Tension Reduction Behavior (TRB)	Use of external activities to avoid internal stress

Table 2

TSI-2A Factor and Scale Organization

Factor	Scale
Self-Disturbance	Depression Insecure Attachment Impaired Self-Reference
Posttraumatic Stress	Dissociation Defensive Avoidance Intrusive Experiences
Externalization	Anger Tension Reduction Behavior Suicidality
Somatization	Somatic Preoccupations

Table 3

TSI-2A Clinical Significant Clinical Items

Item number	Item	% of norm sample endorsed a 1 or higher
22	Attempting Suicide	4.6%
48	Intentionally overdosing on pills or drugs	3.5 %
74	Trying to kill yourself, but then changing your mind	4.4%
81	Thoughts or fantasies about hurting someone	17.6%
90	Doing something violent because you were so upset	11.8%
115	Intentionally hurting yourself (for example, by scratching, cutting, or burning) as a way to stop upsetting thoughts or feelings	4.1%
123	Trying to end your life	3.4%

Appendix A. Internet Databases

SOURCE	DESCRIPTION	REFERENCE
PsyARTICLES	This database offers full-text, peer reviewed scholarly and scientific articles from more than 80 journals in behavioral science and related fields ranging from business, to education, to nursing, and to neuroscience.	APA, 2012a.
SocINDEX	This full-text database is reported to be the world's most comprehensive sociology research database. It has more than 2.1 million records from subject experts and lexicographers covering a broad range of sociological studies.	EBSCO, 2012b
PsycINFO	This database is a prominent resource for abstracts of scholarly journal articles, book chapters, books, and dissertations. Additionally, it is an indexing database with more than three million records devoted to peer-reviewed literature in the behavioral sciences and mental health, making it an ideal discovery and linking tool for scholarly research in a host of disciplines.	APA, 2012b
Academic Search Complete/Premier	This database contains thousands of full-text scholarly journal articles spanning a broad range of areas of academic study (e.g. psychology, pharmaceutical sciences, law, and many other fields).	EBSCO, 2012a
SAGE Journals	This database collection includes the full text of 53 peer-reviewed journals published by SAGE and participating societies, encompassing over 25,297 articles.	EBSCO, 2012c
Inter-University Consortium for Political and Social Research (ICPSR)	This Internet database and search engine was created by an international consortium containing approximately 700 academic institutions and research organizations. The ICPSR maintains a data archive of more than 500,000 files of research in the social sciences (i.e. criminal, substance abuse, education, and other fields).	The ICPSR website

Appendix B. Key search terms used to find research articles

police officers	compassion fatigue	depression / suicide
cognitive empathy	human compassion	trauma and violence
posttraumatic stress disorder	police culture	code of silence
police officers	depression	anger management
cognitive	empathy	mental health
violence	suicide	therapy
trauma	traumatic	substance abuse
police psychology	cognitive theory	continuous exposure
job stress	police brutality	compassion fatigue
betrayal	domestic violence	frequent exposure

Key combinations of search terms were also used to find empirical articles:

silent and treatment	police officer and trauma
police, violence, and PTSD	depression and suicide
suicide and police	psychology and retirement
domestic violence and police	police and anxiety
assessment, violence, and police	police culture and job stress
depression and police	police officer and violence
empathy and police	mental health, police, and depression
shoot, killed, and police	mental health, stress, and police
police psychology and cognitive	suicide and cognitive theory
police and cognitive	police, trauma, and cognitive
continuous, trauma, and exposure police	burnout and police compassion, anger, and trauma
cognition and compassion	violence and compassion
psychology and police culture	empathy, stress, and violence
emotions and police officers	psychological disorders and police officer
code of silence and police	police officer and retirement
distress, police officers, and health	empathy, depression, and cognitive
betrayal and anger	

Appendix C. The Johns Hopkins University Project Shields Questionnaire

Norfolk Police Department –June 2012

JHU Project SHIELDS Questionnaire September 1998

Thank you for taking the time to fill out this questionnaire. Since this questionnaire is completely anonymous, please DO NOT or any identifying marks anywhere on these pages.

I. Background Information

(1) **What is your gender?**
__ **1** Male **2** Female

(2) **Year of birth** 19

(3) **What ethnic group do you belong to**?..... **1**___African American **2**___ Caucasian **3**___ Hispanic **4**___ Other

(4) **Highest level of education completed**:.. High School **1**____ Some College **2**____ College **3**____ Graduate School **4**___

(5) How many years have you been a sworn employee of the **Norfolk Police Department (NPD)? __**

(6) **What is your current rank? (OPTIONAL)**

____ Officer Trainee
____Officer
____Agent
____ Detective
____ Sergeant
____ Lieutenant or above

(7) **Did you serve in military?** . . . . . Yes____ No ____

(8) **Do you routinely have contact with suspects?** Yes ___ No ____

(9) **What is your marital status? married**?

1_____ Married
2_____ Live-in Partner
3_____ Divorced/Separated
4_____ Single
5_____ Widowed

(10) What is the total number of times you've been

(11) **Were you married before you joined the force?**
____ 1 Yes to my current spouse **____2** Yes to my former spouse ____**3** No

(12) How many children are living in your home now (full or part time)? If none, please check N/A
#children _____ *N/A_____

If you are currently married or with a significant other, please answer the following questions. (If not, please check N/A)

(13) What is the gender of your spouse/significant other? **1**____Male **2** ____ Female **3**____ N/A

(14) Does your spouse/significant other have a job? ..... **1**____Yes **2**____No **3**____ N/A

(15) If yes, is he/she a police officer? …….. **1**____Yes **2**____No **3**____ N/A

(16) If yes, does he/she work for the **Norfolk Police Dept.?** ……. **1**____Yes **2**____No **3**____ N/A

(17) What is the highest level of education completed by your spouse/ significant other?

1____ High School **2**____Some College **3**____College **4**____Graduate School

(18) If your spouse/ significant other has been married before, please indicate how many times (not including this marriage) # Marriages____ *N/A_____

II. Work Attitudes

Please check the box that best describes how much you agree with the following statements:

	Strongly Agree	Agree	Neither Agree / Disagree	Disagree	Strongly Disagree
(19) There is good and effective cooperation between unit.	**1** ____	**2**___	**3**____	**4**_____	**5**_____
(20) I Can trust my work partner	**1** ____	**2**___	**3**____	**4**_____	**5**_____
(21) I view my work as just a job- it's not a career	**1** ____	**2**___	**3**____	**4**_____	**5**_____
(22) There enough time at the beginning or end of the day for my chores at home.	**1** ____	**2**___	**3**____	**4**_____	**5**_____
(23) It is likely I will look for another full-time job outside this department within the next year. . .	**1** ____	**2**___	**3**____	**4**_____	**5**_____
(24) Compared to my peer (same rank), I find that I am most likely to be more criticized for my mistake	**1** ____	**2**___	**3**____	**4**_____	**5**_____
(25) I feel that I am less likely to get chosen for certain assignments because of "who I am" (e.g., race, gender, sexual orientation, physical characteristics).	**1** ____	**2**___	**3**____	**4**_____	**5**_____
(26) Within the department, gender related jokes are often made in my presence	**1** ____	**2**___	**3**____	**4**_____	**5**_____
(27) When I am assertive or question the way things are done, I am considered a militant.	**1** ____	**2**___	**3**____	**4**_____	**5**_____
(28) Promotions in this department are tied to ability and merit.	**1** ____	**2**___	**3**____	**4**_____	**5**_____
(29) Media reports of all good police wrong doing are biased against us	**1** ____	**2**___	**3**____	**4**_____	**5**_____
(30) The administration supports officers who are in trouble	**1** ____	**2**___	**3**____	**4**_____	**5**_____
(31) I have had to make split decisions on the street that could have had serious consequences	**1** ____	**2**___	**3**____	**4**_____	**5**_____

	Strongly Agree	Agree	Neither Agree / Disagree	Disagree	Strongly Disagree
(32) The department tends to be more lenient in enforcing rules and regulations for female officers.	**1 ____**	**2___**	**3____**	**4_____**	**5_____**
(33) Some police officers would put their work Ahead of anything else- including their families. .	**1 ____**	**2___**	**3____**	**4_____**	**5_____**
(34) Female officers are held to a higher standard than male officers	**1 ____**	**2___**	**3____**	**4_____**	**5_____**

III. Events at Work

If you have ever experienced any of the following, please indicate how much it emotionally affected you. Please check N/A if you have not experienced it

	Not At all	A little	Very much	N/A
(35) Making a violent arrest.	**1 ___**	**2 ___**	**3____**	**4____**
(36) Shooting Someone	**1 ___**	**2 ___**	**3____**	**4____**
(37) Being the subject of an internal Affairs investigation	**1 ___**	**2 ___**	**3____**	**4____**
(38) Responding to a call related to a chemical spill.	**1 ___**	**2 ___**	**3____**	**4____**
(39) Responding to a bloody crime	**1 ___**	**2 ___**	**3____**	**4____**
(40) Personally knowing the victim	**1 ___**	**2 ___**	**3____**	**4____**
(41) Being involved in a hostage situation	**1 ___**	**2 ___**	**3____**	**4____**
(42) Attending a police funeral	**1 ___**	**2 ___**	**3____**	**4____**
(43) Experiencing a needle stick injury or other exposure to a blood and body fluids.	**1 ___**	**2 ___**	**3____**	**4____**

Did ANY extremely stressful; event you experienced in the past cause you to feel any of the following, for 3 months or more?

	YES	NO
(44) Cause you to have intrusive or recurrent distressing thoughts, memories, or dreams about the event.	**1 ___**	**2___**
(45) Make you avoid things related to the event (i.e., thoughts, places conversations)	**1 ___**	**2 ___**
(46) Make you feel detached from people and activities that are important to you	**1 ___**	**2 ___**

Please check the box that best describes how much you agree with the following statements:

	Strongly Agree	Agree	Neither Agree / Disagree	Disagree	Strongly Disagree
(47) I can obtain helpful stress debriefing when I need it (i.e. not just going to the bar)	**1 ____**	**2___**	**3____**	**4_____**	**5_____**
(48) I feel that I can rely on support from my family friends etc.	**1 ____**	**2___**	**3____**	**4_____**	**5_____**

(49) I feel optimistic or hopeful about the future **1** ____ **2**___ **3**____ **4**_____ **5**_____

(50) I feel like I am on automatic pilot most of the time.**1** ____ **2**___ **3**____ **4**_____ **5**_____

	Strongly Agree	Agree	Neither Agree / Disagree	Disagree	Strongly Disagree
(51) I feel like I need to take control of my life.	**1** ____	**2**___	**3**____	**4**_____	**5**_____
(52) I feel burned out from my job.	**1** ____	**2**___	**3**____	**4**_____	**5**_____
(53) I feel like I am at the end of my rope	**1** ____	**2**___	**3**____	**4**_____	**5**_____
(54) I feel I treat the public as they were impersonal Objects…….	**1** ____	**2**___	**3**____	**4**_____	**5**_____
(55) I have accomplished many worthwhile things in this job	**1** ____	**2**___	**3**____	**4**_____	**5**_____
(56) My beliefs about my personal safety, spirituality, etc., have been changed by my experiences at work …….	**1** ____	**2**___	**3**____	**4**_____	**5**_____

IV. Dealing With Stress

When dealing with stressful events at work, how often do you:

Frequently

	Never	**Sometimes**	**Frequently**	**Always**
(57) Draw your past experiences from a similar situation You have been in before	**1** _____	**2**_____	**3** _____	**4**_____
(58) Stay away from everyone, you want to be alone…	**1** _____	**2**_____	**3** _____	**4**_____
(59) Talk with your spouse, relative or friend about the Problem.	**1** _____	**2**_____	**3** _____	**4**_____
(60) Smoke more to help you relax	**1** _____	**2**_____	**3** _____	**4**_____
(61) Pray for guidance and strength	**1** _____	**2**_____	**3** _____	**4**_____
(62) Make a plan of action and follow it	**1** _____	**2**_____	**3** _____	**4**_____
(63) Exercise regularly to reduce tension	**1** _____	**2**_____	**3** _____	**4**_____
(64) Yell or shout at your spouse/ significant other, a family or a member or a professional ……..	**1** _____	**2**_____	**3** _____	**4**_____
(65) Let your feelings out by smashing things	**1** _____	**2**_____	**3** _____	**4**_____
(66) Hang out more with your fellow officers at the bar..	**1** _____	**2**_____	**3** _____	**4**_____

(67) Gamble . . . . . **1 _____ 2_____ 3 _____ 4_____**
(68) Increase your sexual activity…… …… … **1 _____ 2_____ 3 _____ 4_____**
(69) Rely on your faith in God to see you through this rough time……**1 _____ 2_____ 3 _____ 4_____**
(70) Try to act as if it's not bothering you . . . . . **1 _____ 2_____ 3 _____ 4_____.**

During the past 6 months…

(71) Did you ever worry or feel guilty about you alcohol consumption **____1 Yes ___2 No ___3 N/A (Do Not Drink)**

(72) Did you ever drink more than you planned……...**___1 Yes ___2 No ___3 N/A (Do Not Drink)**

(73) Did you have periods when you could not remember what happened when you were drinking ……**___1 Yes ___2 No ___3 N/A (Do Not Drink)**

V. Health Section

Do you suffer from the following health problems? Please check all that apply.

	YES	NO		YES	NO
(74) Migraines	**1_____**	**2 ____**	(75) Diabetes ……	**1_____**	**2 ____**
(76) Chronic low back pain….....	**1_____**	**2 _____**	(77) High Blood Pressure	**1_____**	**2 ____**
(78) Liver disease ……	**1_____**	**2 _____**	(79) Foot problems……	**1_____**	**2 ____**
(80) Heart Disease ……..	**1_____**	**2 _____**	(81) Reproductive Problems	**1_____**	**2 ___**
(82) Chronic insomnia (unable to sleep)	**1_____**	**2 _____**			

(83) Do you currently smoke cigarettes cigars, or a pipe ? **1 _____ 2 _____**

(84) Have you had any serious injury (i.e., car accident, etc..) in the past 6 months……**1_____ 2 ___**

In the past 6 months, how often did you have (check all that apply)

	Never	Sometimes	Frequently	Always
(85) Pain or pounding in your heart and chest……	**1 _____**	**2_____**	**3 _____**	**4_____**
(86) Fainting or dizziness ……	**1 _____**	**2_____**	**3 _____**	**4_____**
(87) Lost of sexual interest or pleasure	**1 _____**	**2_____**	**3 _____**	**4_____**
(88) Feeling low of energy or slowed down… … ..…	**1 _____**	**2_____**	**3 _____**	**4_____**
(89) Thoughts of ending your life.	**1 _____**	**2_____**	**3 _____**	**4_____**
(90) Feeling of being trapped or caught……..	**1 _____**	**2_____**	**3 _____**	**4_____**
(91) Headaches or pressure in your head ……	**1 _____**	**2_____**	**3 _____**	**4_____**
(92 Blaming yourself for things …….	**1 _____**	**2_____**	**3 _____**	**4_____**
(93) Feeling blue……..	**1_____**	**2_____**	**3 _____**	**4_____**
(94) Nausea, upset stomach, stomach pains ……	**1 _____**	**2_____**	**3 _____**	**4_____**
(95) Suddenly scared for no reason ……	**1 _____**	**2_____**	**3 _____**	**4_____**
(96) Feeling no interest in things ……	**1 _____**	**2_____**	**3 _____**	**4_____**
(97) Trouble getting your breath……	**1 _____**	**2_____**	**3 _____**	**4_____**

(98) A lump in your throat …… **1 _____ 2_____ 3 _____ 4_____**
(99) Feeling hopeless about the future …… **1 _____ 2_____ 3 _____ 4_____**

(100) Spells of terror or panic …… **1 _____ 2_____ 3 _____ 4_____**
(101) Feeling so restless you couldn't sit still …… **1 _____ 2_____ 3 _____ 4_____**
(102) Crying easily …… **1 _____ 2_____ 3 _____ 4_____**
(103) Feeling that something bad was going to happen to you at work …… **1 _____ 2_____ 3 _____ 4_____**

How often are the following statements true?

	Never	Sometimes	Frequently	Always
(104) I feel tired at work even with adequate sleep.	**1 _____**	**2_____**	**3 _____**	**4____**
(105) I am moody, irritable, or impatient over small problems	**1 _____**	**2_____**	**3 _____**	**4____**
(106) I want to withdraw from the constant demands on my time and energy from work ……..	**1 _____**	**2_____**	**3 _____**	**4____**
(107) I feel negative, futile or depressed at work ……	**1 _____**	**2_____**	**3 _____**	**4____**
(108) I think I am not as efficient at work as I should be……..	**1 _____**	**2_____**	**3 _____**	**4____**
(109) I feel physically, emotionally and spiritually depleted …	**1 _____**	**2_____**	**3 _____**	**4____**
(110) My resistance to illness is lowered because of my work…	**1 _____**	**2_____**	**3 _____**	**4____**
(111) My interest in doing fun activities is lowered because of my work ……	**1 _____**	**2_____**	**3 _____**	**4____**
(112) I feel uncaring about the problems and needs of the public when I am at work ……..	**1 _____**	**2_____**	**3 _____**	**4____**
(113) I have difficulty concentrating on my job ……	**1 _____**	**2_____**	**3 _____**	**4____**
(114) When I ask myself why I get up and go to work the The only answer that occurs to me is "I have to" …	**1 _____**	**2_____**	**3 _____**	**4____**

VI. Behaviors

Have you ever gotten out of control and been physical (e.g., pushing, shoving,

	YES	NO		YES	NO	N/A
(115) A fellow officer ……	**____ 1**	**____2**	(116) Your children ……	**__ 1**	**__2**	**__3**
(117) Your spouse/significant other ,,,,,,	**___ 1**	**__2**	**___3**			
(118) Your pet(s)	**__ 1**	**__2**	**__3**			

Have these people ever gotten physical with you?

	YES	NO		YES	NO	N/A
(119) A fellow officer ……	**____ 1**	**_____2**	(120) Your spouse/significant other……	**__1**	**__2**	**__3**
(121) Your parents when you were a child……. other….....	**_____1**	**_____2**	(122) Did your parents ever get physical with each	YES	NO	DON'T KNOW
(123) Suspects or civilians. .. ……..	**_____ 1**	**_____2**		**__1**	**__2**	**__3**

VII. Work- Home Issues

Please check the box that best describes how much you agree with the following statements:

	Strongly Agree	Agree	Neither Agree / Disagree	Disagree	Strongly Disagree
(124) I often get home too physically and emotionally exhausted to deal with my. spouse/ significant other ……..	**1 ____**	**2___**	**3____**	**4_____**	**5_____**
(125) I encourage my spouse/ significant other to spend time with their family and friends……	**1 ____**	**2___**	**3____**	**4_____**	**5____**
(126) I catch myself treating my family the way I treat suspects.	**1 ____**	**2___**	**3____**	**4_____**	**5_____**
(127) At home, I can never shake off the feeling of being a police officer	**1 ____**	**2___**	**3____**	**4_____**	**5____**
(128) A person who refuses to have sex with his or her spouse/significant other is asking to be beaten	**1 ____**	**2___**	**3____**	**4_____**	**5_____**
(129) I expect to have the final say on how things are done in my household	**1 ____**	**2___**	**3____**	**4_____**	**5_____**
(130) It's okay for a person to get physical (e.g., shoving, grabbing, smacking) with his or her spouse/ significant other they've been unfaithful	**1 ____**	**2___**	**3____**	**4_____**	**5_____**
(131) Getting physical once in a while can help maintain a marriage/relationship	**1 ____**	**2___**	**3____**	**4_____**	**5____**
(132) There is no excuse for people getting physical with their spouse/significant other.	**1 ____**	**2___**	**3____**	**4_____**	**5____**

Add on Question by Researcher: Frequency of Exposure: If you have ever experienced any of the following within the past 1 year, please estimate how many:

1. Making a violent arrest:_____
2. Shooting someone or animal:_____
3. Exposure to victim of a violent sexual assault (adult):_____ (adolescent):_____(children):_____
4. Exposure to a bloody crime scene, homicide/shooting scene in which the victim is present:_____
5. Being involved in a hostage situation:_____
6. Attending a police funeral:_____
7. Experiencing a needle stick injury or other exposure to blood and body fluids:_____
8. Exposure to assault or victim of an assault (cut, shot, hit):_____
9. Shot at by suspect:_____
10. Point weapon at another human:_____
11. Vehicle accidents involving serious injury:_____

Thank you for the time and effort. Your input will be valuable in identifying ways to make your work environment a better place. This assessment was previously given at the Baltimore Police Department by Dr. Robyn Gershon (John Hopkins University) and she has given me permission to use this questionnaire at the Norfolk Police Department. If you have any questions, comments, or need more information, please call the office of Ternarian A Warren (Clinical Psychology Doctoral Candidate – Walden University) at (757) – 822 – 3896

Appendix D. Compassion Scale

Compassion Scale

HOW I TYPICALLY ACT TOWARDS OTHERS

Please read each statement carefully before answering. To the left of each item, indicate how often you behave in the stated manner, using the following scale:

Almost Always **Almost Never**

1 2 3 4 5

_____1. When people cry in front of me, I often don't feel anything at all.
_____2. Sometimes when people talk about their problems, I feel like I don't care.
_____3. I don't feel emotionally connected to people in pain.
_____4. I pay careful attention when other people talk to me.
_____5. I feel detached from others when they tell me their tales of woe.
_____6. If I see someone going through a difficult time, I try to be caring toward that person.
_____7. I often tune out when people tell me about their troubles.
_____8. I like to be there for others in times of difficulty.
_____9. I notice when people are upset, even if they don't say anything.
_____10. When I see someone feeling down, I feel like I can't relate to them.
_____11. Everyone feels down sometimes, it is part of being human.
_____12. Sometimes I am cold to others when they are down and out.
_____13. I tend to listen patiently when people tell me their problems.
_____14. I don't concern myself with other people's problems.
_____15. It's important to recognize that all people have weaknesses and no one's perfect.
_____16. My heart goes out to people who are unhappy.
_____17. Despite my differences with others, I know that everyone feels pain just like me.
_____18. When others are feeling troubled, I usually let someone else attend to them.
_____19. I don't think much about the concerns of others.
_____20. Suffering is just a part of the common human experience.
_____21. When people tell me about their problems, I try to keep a balanced perspective on the situation.
_____22. I can't really connect with other people when they're suffering.
_____23. I try to avoid people who are experiencing a lot of pain.
_____24. When others feel sadness, I try to comfort them.

<u>Coding Key:</u>
Kindness Items: 6, 8, 16, & 24
Indifference Items: 2, 12, 14, & 18 (Reversed Scored)
Common Humanity: 11, 15, 17, & 20
Separation: 3, 5, 10, & 22 (Reversed Scored)
Mindfulness: 4, 9, 13, & 21
Disengagement: 1, 7, 19, & 23 (Reverse Scored)
To reverse-score, change the following values: 1 = 5, 2 = 4, 3 = 3, 4 = 2, 5 = 1
To compute a total Compassion Score, take the mean of each subscale (after reverse-scoring) and compute a total mean.
Please remember that if you plan to examine the subscales separately, you should not reverse-code. Before reverse-coding, for example, higher indifference scores represent more

indifference, but after reverse-coding higher indifference scores represent less indifference. This is why the subscales of indifference, separation, and disengagement are reverse-coded before taking an overall compassion mean.

Pommier, E.. The compassion scale. Ph.D. dissertation, The University of Texas at Austin, United States -- Texas. Retrieved May 27, 2011, from Dissertations & Theses @ University of Texas - Austin.(Publication No. AAT 3445994).

Contact: Dr. Pommier at eap345@gmail.com
Contact: Dr. Neff at kristin.neff@mail.utexas.edu

Appendix E. Permission email to use the JHU Project Shields Questionnaire

Hello Mr. Warren,
Dr. Gershon said yes, you have her permission to use them.

Best regards,
Lela

Lela Chu
Research Analyst and Coordinator
Institute for Health Policy Studies
3333 California Street, Suite 265
San Francisco, CA 94118
(415) 476-9745
Lela.Chu@ucsf.edu

From: Ternarian Warren [mailto:ternarian.warren@waldenu.edu]
Sent: Wednesday, February 08, 2012 5:38 PM
To: Chu, Lela
Subject: Re: Police Stress Baltimore - Dr. Gershon

Hello Ms Chu

Thank you very much for responding to my email. Do I have permission to use her questions in my research? At one research topic, I am considering either manipulating her questions because I do not need all of them. Or I may want to look at IPV on police departments or at least 2 or 3 police departments in the Tidewater Area of Virginia (i.e. Norfolk, Virginia Beach, Chesapeake, or Hampton) and if this is going to be my approach, I will request to use the same questions. I will await your response and thank you very much.

T. A. Warren

Original E-mail
From: "Chu, Lela" <Lela.Chu@ucsf.edu>
Date: 02/08/2012 07:01 PM
To: "ternarian.warren@waldenu.edu" <ternarian.warren@waldenu.edu>
Subject: Police Stress Baltimore - Dr. Gershon

Hello Mr. Warren,

Dr. Gershon has asked that I contact you, and send you the attached documents. This should include the questionnaire and the research paper.
Let me know if you have any questions, or need anything else.
Best regards,
Lela

Lela Chu
Research Analyst and Coordinator
Institute for Health Policy Studies
3333 California Street, Suite 265
San Francisco, CA 94118
(415) 476-9745
Lela.Chu@ucsf.edu

Appendix F. Letter of Cooperation from a Community Research Partner

Letter of Cooperation from a Community Research Partner

Norfolk Police Department, Norfolk, Virginia
Chief of Police, Michael Goldsmith
757-664-3277

June 11, 2014

Dear Ternarian "T.A." Warren

Based on my review of your research proposal, I give permission for you to conduct the study entitled The Effects of Frequent Exposure to Violence and Trauma on Police Officers within the Norfolk Police Department, located in Norfolk, Virginia. As part of this study, I authorize you to attend police roll calls and provide a brief explanation of your research project. All individuals' participation will be voluntary and at their own discretion.

We understand that our organization's responsibilities include: allow the researcher approximately 10 minutes of roll call time to explain the research project and allow the research to place a secure drop box in the roll call room. We reserve the right to withdraw from the study at any time if our circumstances change.

I confirm that I am authorized to approve research in this setting.

I understand that the data collected will remain entirely confidential and may not be provided to anyone outside of the research team without permission from the Walden University IRB.

Sincerely,

SIGNED ON JUNE 11, 2014

Michael Goldsmith
Norfolk Chief of Police
100 Brooke Ave.
Norfolk, VA 23510
757-664-3277

Walden University policy on electronic signatures: An electronic signature is just as valid as a written signature as long as both parties have agreed to conduct the transaction electronically. Electronic signatures are regulated by the Uniform Electronic Transactions Act. Electronic signatures are only valid when the signer is either (a) the sender of the email, or (b) copied on the email containing the signed document. Legally an "electronic signature" can be the person's typed name, their email address, or any other identifying marker. Walden University staff verify any electronic signatures that do not originate from a password-protected source (i.e., an email address officially on file with Walden).