

2022

Factors Impacting Vicarious Traumatization in Metropolitan Law Enforcement Officers

Falisa Asberry
Walden University

Follow this and additional works at: <https://scholarworks.waldenu.edu/dissertations>



Part of the [Psychology Commons](#)

This Dissertation is brought to you for free and open access by the Walden Dissertations and Doctoral Studies Collection at ScholarWorks. It has been accepted for inclusion in Walden Dissertations and Doctoral Studies by an authorized administrator of ScholarWorks. For more information, please contact ScholarWorks@waldenu.edu.

Walden University

College of Psychology and Community Services

This is to certify that the doctoral dissertation by

Falisa Asberry

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee

Dr. Tracy Marsh, Committee Chairperson, Psychology Faculty
Dr. Frederica Hendricks-Noble, Committee Member, Psychology Faculty
Dr. Medha Talpade, University Reviewer, Psychology Faculty

Chief Academic Officer and Provost
Sue Subocz, Ph.D.

Walden University
2022

Abstract

Factors Impacting Vicarious Traumatization in Metropolitan Law Enforcement Officers

in Ohio

by

Falisa Asberry

MA, Tiffin University, 2004

BS, David N. Myers University, 2003

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Psychology

Walden University

May 2022

Abstract

The exposure to work-related trauma and the relationship to gender, age, years of service, and education level and their impact on the development of vicarious traumatization (VT) on metropolitan law enforcement officers has been underexamined. The purpose of this quantitative correlational study was to examine whether the mediating variable resilience, along with the independent variables gender, age, years of service, and level of education, impacted the dependent variable VT. The constructivist self-development theory and the resilience theory were used as the framework for the study. The professional quality of life scale was used to measure the independent variables and VT. The resilience scale was used to measure resilience. Survey data were collected from a random sample of 240 law enforcement officers in the state of Ohio. Multiple linear regression analysis and analysis of variance were conducted to analyze the data. Findings showed that gender, years of service, age, and level of education did not predict VT. Findings also indicated resilience did not mediate the strength of the relationship between gender, years of service, age, level of education, and VT. Findings indicated with every one-unit increase in resilience, VT scores decreased by 0.13 units. Findings may lead to positive social change through better prepared, better educated, and better-equipped officers, thereby reducing the negativity associated with the interactions between law enforcement officers and communities.

Factors Impacting Vicarious Traumatization in Metropolitan Law Enforcement Officers

in Ohio

by

Falisa Asberry

MA, Tiffin University, 2004

BS, David N. Myers University, 2003

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Psychology

Walden University

May 2022

Dedication

This study is dedicated to my beautiful and amazing daughters. It is because of the two of you that I embarked on this educational and life-altering journey. It is also because of the two of you that I completed this journey. You both sparked a burning desire in me that caused me to want to be the best possible mother and role model that I could be for you. My plan was to provide a clear example of what dedication, tenacity, perseverance, and commitment looked like in the flesh. I hope that I've done that for you. You are both amazing and perfectly capable of greatness. Finally, I dedicate this study to the people honorably serving to protect and serve others. It is because of you that we as a society have the freedoms that we do. Continue to take loving care of yourselves and each other.

Acknowledgments

First, I want to thank my Lord and savior Jesus Christ; through him all things are possible. I want to thank the members of my committee, Dr. Tracy Marsh, Dr. Frederica Hendricks-Noble, and Dr. Medha Talpade, for your authentic professionalism and support. Although this journey has been incredibly long and extremely challenging, I would be remiss to not point out the endless support that I received from Dr. Hendricks-Noble. The roller coaster ride of emotions that came along with this journey included a lot of tears, disappointment, excitement, anger, and fear. Dr. Hendricks-Noble was her amazing and supportive self every step of the way. For that, I am forever grateful.

The other individuals who are important for me to thank and acknowledge are Dr. Tyffani Dent and Dr. Jeanine Staples. Just like most people in the world, I struggled to gain control of my negative internal thoughts and limiting beliefs. These two amazing women positioned themselves to provide me with supportive words in my time of need and meaningful coaching that took me through to the end. Lastly, I get to acknowledge my daughters, my husband, my extended family, and any other person who extended kind words of encouragement. All of the aforementioned pieces of the puzzle were needed and necessary for this project to come to life. Thank you all so very much!

Table of Contents

List of Tables	v
List of Figures	vi
Chapter 1: Introduction to the Study.....	1
Background.....	3
Problem Statement.....	6
Purpose of the Study	7
Research Questions and Hypotheses	7
Theoretical Framework.....	8
Constructivist Self-Development Theory	8
Resilience Theory	9
Nature of the Study	10
Definitions.....	11
Assumptions.....	13
Scope and Delimitations	13
Limitations	14
Significance.....	15
Summary	16
Chapter 2: Literature Review.....	17
Literature Search Strategy.....	18
Theoretical Foundation	19
Constructivist Self-Development Theory	19

Resilience Theory	22
Literature Review.....	23
Psychological Stress.....	23
Law Enforcement Stressors	25
Compassion Fatigue.....	31
Compassion Satisfaction.....	35
Professional Burnout.....	35
Law Enforcement Culture and Exposure to Vicarious Experiences.....	38
Law Enforcement Coping Strategies	41
Adverse Outcomes and Law Enforcement Stressors	43
Post-Traumatic Stress Disorder Versus Vicarious Traumatization	45
Law Enforcement and Age Differences.....	47
Years of Service and Vicarious Traumatization	49
Gender Differences in Law Enforcement	51
Gender and Vicarious Traumatization	53
Level of Education and Vicarious Traumatization	58
Resilience and Law Enforcement	59
Summary	61
Chapter 3: Research Method.....	63
Research Design and Rationale	63
Methodology	63
Population	64

Sampling and Sampling Procedures	64
Sample Size Calculation	65
Procedures for Recruitment	65
Procedures for Participation.....	65
Data Collection	66
Instrumentation and Operationalization of Constructs	67
Professional Quality of Life Scale 5	68
Validity and Reliability of ProQOL 5.....	69
Wagnild and Young Resilience Scale.....	70
Validity and Reliability of RS.....	70
Data Analysis	71
Research Questions and Hypotheses	71
Research Question 1	71
Research Question 2	72
Threats to Validity	74
Ethical Considerations	74
Summary	75
Chapter 4: Results	76
Data Collection	76
Descriptive Findings	77
Research Question 1	79
Research Question 2	82

Summary	87
Chapter 5: Discussion, Conclusions, and Recommendations	88
Interpretation of the Findings.....	89
Research Question 1	89
Research Question 2	91
Limitations of the Study.....	93
Recommendations.....	94
Implications.....	96
Conclusion	99
References.....	100
Appendix A: Demographic Questionnaire.....	142
Appendix B: Permission to Use Instrument (Resilience Scale).....	144
Appendix C: Compassion Satisfaction and Compassion Fatigue (PROQOL 5)	145
Appendix D: Critical Incident Response Service	146

List of Tables

Table 1. Participant Sociodemographics..... 78

Table 2. Descriptive Statistics for VT and Resilience 79

Table 3. Analysis of Variance Table for VT by Gender, Years of Service in Law, Age,
and Level of Education 81

Table 4. Descriptive Statistics for VT by Gender, Years of Service in Law Enforcement,
Age, and Level of Education 81

Table 5. Variance Inflation Factors for Predictors..... 85

Table 6. Regression Results Testing Resilience as Mediator of Relationship Between
Gender, Years of Service, Age, Level of Education, and VT..... 87

List of Figures

Figure 1. Normal P-P Plot..... 84

Figure 2. Residuals Scatterplot for the Regression Model 85

Chapter 1: Introduction to the Study

Law enforcement is an honorable and noble profession. Courageous men and women take an oath to protect and serve in communities all over the world. As individuals consider a law enforcement career, they need to understand the commitment to justice and service to the public. The literature indicated law enforcement as a profession in which individuals are exposed to grave danger and enormous psychological distress (Basinska et al., 2014; Bertilsson et al., 2019; Rose & Unnithan, 2015). Throughout the history of policing, law enforcement has always been a stressful occupation, one with ever-evolving tasks, threats, and responsibilities (Hope, 2017; Violanti, Fekedulegn, Andrew, et al., 2017). Law enforcement is an occupation attractive to individuals who can assume job responsibilities after completing the state requirements of police academy training. Most states will certify an individual to be a commissioned law enforcement officer at 21 years of age. After completing 25 years of service, a commissioned law enforcement officer becomes eligible to collect a retirement pension. Although the requirements to become a commissioned law enforcement officer are straightforward, they require a person to have specific skills and qualities (Inzunza & Wikström, 2020).

The literature indicated that policing is an occupation known to have adverse physical and mental health outcomes (Carleton et al., 2018; Christopher et al., 2016). Law enforcement officers (LEOs) are likely to experience anxiety (Vancini et al., 2018; Violanti et al., 2014), insomnia (Bond et al., 2013; Ma et al., 2019; Neylan, 2013), depressive symptoms (Allison et al., 2019; Velazquez & Hernandez, 2019), and weight

gain (Vancini et al., 2018). Bishopp et al. (2019) hypothesized the stressors LEOs contend with emanating from occupational and environmental sources can lead to adverse outcomes, which increases the risks of misconduct. LEOs are often in situations that cause extreme stress and high emotion. Stress is a construct well documented in the literature about police work. However, stress is different from the theory-based construct vicarious traumatization (VT). VT has been defined as “a transformation resulting from empathetic engagement with trauma survivors” (Pearlman, 1999, p. 53). Moreover, VT has been used interchangeably in the literature with compassion fatigue, professional burnout, secondary traumatic stress, countertransference, and work-related stress. Although these terms have been used in the literature, VT was the term used in this study.

Professionals who work in disciplines routinely confronted with other trauma, such as victim advocates, mental health workers, and first responders, are regularly exposed to traumatic incidents (Raz et al., 2018; Whitt-Woosley & Sprang, 2018). Chronic exposure to trauma-provoking incidents such as sexual assaults, intimate partner violence, child maltreatment, homicides, and suicides is dangerous to the well-being of LEOs. However, these effects have not been well addressed during police academy training (Blumberg & Papazoglou, 2019; Violanti, 2006). Wild et al. (2020) reviewed interventions to improve well-being, resilience, and stress management for first responders. Wild et al. asserted that six of the 13 interventions examined were useful for first responders when targeting modifiable predictors of trauma-related psychiatric disorders. Training may be a protective factor for first responders who face trauma in their daily work (Wild et al., 2020). At the time of the current study, it was unknown

whether age, gender, years of service, and education impact the development of VT. The current study addressed these independent variables to determine whether resilience is a mediating factor in the development of VT among metropolitan LEOs in a Midwest region of the United States. Chapter 1 provides the background of the study, the problem statement, the purpose of the study, the research questions, the theoretical foundation of the study, the nature of the study, and the definitions, assumptions, scope, and delimitations. Limitations of the study, significance of the study, and a summary of the chapter are also provided.

Background

LEOs protect the community, preserve life, and safeguard property (Prati & Pietrantonio, 2010). To execute their duties effectively, LEOs require specific training (Blumberg & Papazoglou, 2019). Research suggested that police academy training does not adequately equip candidates for the long-term psychological outcomes associated with trauma encountered on the job (Blumberg & Papazoglou, 2019; McDermott & Hulse, 2012; Papazoglou et al., 2019). Rees and Smith (2007) theorized that police training does not adequately address the sustainability of working in and around trauma.

Law enforcement is dangerous, exhausting, and unpredictable. However, a certain appeal continues to draw individuals toward this career path (Elntib & Milincic, 2020). Young recruits encounter the same challenges, risks, and uncertainty as veteran officers; however, veteran officers have professional wisdom that only experience can provide (Mattos, 2010).

Post-traumatic stress disorder (PTSD) differences across genders have been linked to different psychological and biological factors. Concerning gender, Olf (2017) examined psychological and biological factors related to PTSD development and found it prevalent in female and male LEOs. Initially, females were disqualified from a career in law enforcement due to the belief they were unsuited for police work. Although there was no research suggesting their performance would differ from their male counterparts (Worden, 1993), researchers believed that female police officers would bring different attitudes and values to policing (Worden, 1993).

Criminal justice is a popular area of study in colleges and universities across the United States (Snyder et al., 2018). There were over 69,000 criminal-justice-related degrees conferred in 2015 (Snyder et al., 2018). Formal education in law enforcement is of significant importance to executing different duties. However, the discussion regarding the need for formal or higher education in law enforcement has been endless, with mixed reactions (Edwards, 2019). Advocates against the inclusion of higher education in policing argue that policing experience contributes to superior performance and not educational qualifications, such as attaining higher education or academic degrees (Paoline & Terrill, 2007). Opponents and proponents for formal education in law enforcement have varying views. Those supporting higher education argue that educated officers with academic degrees are less likely to be physically and verbally abusive (Edwards, 2019; Marciniak & Elattrache, 2020). According to Stoughton (2015, as cited in Marciniak & Elattrache, 2020), officers who have attained college-level education display a certain level of mental flexibility and other psychological skills necessary for

managing psychological challenges associated with the role of being a law enforcement officer.

LEOs are regularly exposed to critical and traumatic incidents, placing them at higher risk for developing stress-related psychopathology and health problems more so than the general population. Research indicated that interventions could improve resilience to stress and may help protect this high-risk population (Wild et al., 2020). McCanlies et al. (2018) examined the effects of various social supports that include resilience. The outcome suggested that targeting factors associated with building resilience may help support an officer's ability to manage symptoms of depression, which is also a symptom of VT. Bonanno (2004) challenged previous assumptions within resilience literature asserting that adults cope with trauma or loss by seeking professional help. In the review, Bonanno uncovered evidence that signifies resilience has a distinct trajectory in the recovery process. Resilience in the aftermath of trauma is ordinary; as a result, there are multiple pathways to resilience.

The literature indicated that individuals exposed to others' traumatic material within their professional roles are adversely impacted personally and professionally. However, there was a gap in the literature regarding VT's prevalence among LEOs in the contexts of years of service, age, gender, and education level. The current study was needed to provide empirical evidence of the relationships among key variables that had been scarcely documented. Finding may have implications for policing policy and practices in terms of the health and well-being of metropolitan LEOs.

Problem Statement

LEOs are faced with excessive amounts of pressure due to the unpredictable and highly challenging nature of their work. Life-and-death decisions must be made within an instant, leaving little room to emotionally recover to a place of healthy psychological resilience (de Terte et al., 2014). In recent years, the law enforcement profession has become progressively more challenging. LEOs must work in highly active environments and address incidents such as sexual assaults, suicides, homicides, civil unrest, mass murder, and active shooter incidents (Antrobus et al., 2015; Brooks et al., 2016). Consequently, officers experience higher levels of trauma-related exposure, including hearing incidents from other officers and viewing perceived trauma on mainstream media or social media platforms (Chopko & Schwartz, 2009; Comstock & Platania, 2017).

Not only are LEOs subjected to the traumatic experiences of fellow officers and the traumatic experiences of survivors, but they also risk individual experiences of trauma. A dichotomous situation arises when experiencing work-related trauma and experiencing personal trauma. The increase in work-related trauma exposure has resulted in psychological, social, and practical changes within the culture of policing, necessitating a need to understand the impact of the changes, including research on the sensitivity and specificity of exposure (Geronazzo-Alman et al., 2017). A better understanding of work-related trauma exposure for LEOs could lead to the early identification of individuals who may be at higher risk of developing VT. According to Schwarzer (2016), VT can be as debilitating as PTSD and therefore requires additional study.

Purpose of the Study

The purpose of this quantitative study was to examine whether gender, age, years of service, and education levels impact VT among metropolitan LEOs from a Midwest region of the United States. I also investigated whether resilience mitigated the negative impact of VT. The Resilience Scale (RS; Wagnild, 2011) was used to address the mediating variable resilience in this study. The dependent variable (VT) was measured using the Professional Quality of Life Scale (ProQOL 5; Stamm, 2010). Independent variables were years of service, age, gender, and education level.

Research Questions and Hypotheses

RQ1: Does VT as measured by the Professional Quality of Life Scale vary based on (a) gender, (b) years of service in law enforcement, (c) age at the time of the study, and (d) levels of education?

H_01 : VT as measured by the Professional Quality of Life Scale does not vary based on (a) gender (b) years of service in law enforcement, (c) age at the time of the study, and (d) levels of education.

H_{a1} : VT as measured by the Professional Quality of Life Scale varies based on (a) gender, (b) years of service in law enforcement, (c) age at the time of the study, and (d) levels of education.

RQ2: Does the level of resilience mediate the impact of gender, years of service, age, and education on VT?

H_02 : The level of resilience does not mediate VT scores on the ProQOL 5, and levels of resilience as measured by the Resilience Scale. There are no differences in VT

and resilience based on (a) gender, (b) years of service in law enforcement, (c) age at the time of the study, and (d) level of education.

H_{a2}: The level of resilience mediates VT scores on the ProQOL 5, and levels of resilience as measured by the Resilience Scale. There is a difference between VT and resilience based on (a) gender, (b) years of service in law enforcement, (c) age at the time of study, and (d) level of education.

Theoretical Framework

This study was based on McCann and Pearlman's (1992) constructivist self-development theory (CSDT) and Wagnild and Young's (1993) resilience theory. These theories functioned as the framework for the research questions and hypotheses.

Constructivist Self-Development Theory

According to the CSDT, individuals form ways of thinking based on personal realities and how they are interpreted, including their perceptions and experiences (McCann & Pearlman, 1992). The ego accentuates a person's schema and shifts a person's ability to consider consequences, set boundaries, and protect themselves from acting on impulse (McCann & Pearlman, 1992). A person's sense of self enables meaningful connections with others (Dunkley & Whelan, 2006). According to McCann and Pearlman (1992), individuals create their realities from cognitive schemas.

Cognitive schemas originated from Piaget's theory of cognitive development, in which stages of development were described as building blocks that lead to knowledge and understanding (Kibler, 2011; Piaget, 1971). The cognitive development theory addresses how an individual acquires, constructs, and uses information. The impact of

trauma is understood differently based on individual experiences. Trauma awareness increases over the lifespan following exposure to added information.

Schema, which is characterized by unique ways of understanding, is individually used as a frame of reference and a lens to view the world. In the law enforcement environment, providing service, protecting, comforting, and assisting individuals or families impacted by trauma may affect the officer's worldview over time. Furthermore, the schemata may alter the assumptions and expectations of how a person relates to the world (McCann & Pearlman, 1992). Throughout an individual's life and career, cognitive schemas evolve and become increasingly complex as traumatizing experiences increase.

Research has shown that individuals who spend significant amounts of time assisting trauma survivors may be at risk for negative or adverse effects regarding their mental health and wellness (Phelps et al., 2009). Epstein (1989) and McCann and Pearlman (1992) shared consistencies regarding the four basic assumptions that trauma negatively alters: the world is meaningful, the self is worthy, the world is benign, and people are trustworthy. McCann and Pearlman (1992) established five fundamental psychological needs related to trauma: dependency and trust, safety, power, esteem, and intimacy. This original set of fundamental needs was later expanded to include two additional needs: a frame of reference and independence (McCann & Pearlman, 1992).

Resilience Theory

Resilience theory is based on the ways in which people are affected by, adapt to, and overcome adversity (Ledesma, 2014). Resilience theory underscores how individuals adapt to stressful environments (Ledesma, 2014). Resilience theory was used in the

current study to understand how psychological characteristics influence an individual's capacity to withstand traumatic experiences in the workplace. Resilience theory and the SCDT are further discussed in Chapter 2.

Nature of the Study

I adopted a quantitative methodology. According to Brannen (2017), quantitative methodology is used when a researcher seeks to use numerical values and statistics to measure and express relationships between study variables. On the other hand, qualitative methods are used by researchers to provide rich, textual information that is used to describe participants' experiences (Levitt et al., 2017), which was not the focus of the current study. Researchers use mixed-methods approaches when integrating qualitative and quantitative methods to understand a phenomenon (Levitt et al., 2017; Newman et al., 1998). The mixed-methods approach was not considered for the current study because the qualitative method was not compatible with this study's purpose. Quantitative methodology aligned with the study's purpose to examine the statistical relationship between the dependent variable (VT) and the independent variables (years of service, age, gender, and education level) with resilience as a mediating variable.

A correlational design was selected for this study. According to Muijs (2010), a correlational study is used when researchers need to measure the degree of a relationship or association between study variables. A vital facet of a correlational study is that it is used to measure the relationships between independent and dependent variables (Newman et al., 1998). I examined relationships between years of service, age, gender, education level, and VT, and examined whether resilience was a mediating factor. A

correlational design allowed me to assess the relationship between VT and years of service, age, gender, and education level as mediated by resilience.

Definitions

Compassion fatigue: The feelings of burnout experienced by nurses (Figley, 1995). Compassion fatigue is now a common term used to describe emotional and psychological fatigue that professionals experience due to prolonged use of empathy when interacting with individuals who are experiencing sorrow (Figley, 1995, 1999).

Compassion satisfaction: The pleasure a person feels in doing good work (Stamm, 2010). Compassion satisfaction is positive recognition through work in which individuals reach professional fulfillment and personal gratification (Stamm, 2010).

Critical incident: A specific, unexpected, time-limited emergency or event that may involve the threat of personal injury or well-being or a loss of life. A critical incident may represent a potential turning point in a person's life (Flannery, 2015; Kehl et al., 2014).

Empathy: The ability to understand another person's feelings and emotional experiences without passing judgment (Geist, 2013; Nyatanga, 2013).

Gender: The characteristics of people that are socially constructed, while sex refers to those that are biologically determined (World Health Organization, n.d.)

Level of education: The highest completed qualifications reported for a person in any field of study, or the highest year of school completed, whichever is higher. (Australian Bureau of Statistics, 2002).

Professional burnout: “A syndrome of emotional exhaustion, depolarization, and reduced feelings of personal accomplishments because of constant and emotionally draining work with troubled individuals” (Maslach, 1982, p. 32).

Psychological trauma: Changes to the brain resulting from powerfully distressing events with emotional and physical well-being. Overwhelming stress that results in an inability to cope with emotions after stressful events may cause traumatic injury, thereby limiting the functionality of the traumatized person (Branson et al., 2014).

Resilience: “The process of adapting well in the face of adversity, trauma, tragedy, threats or significant sources of stress—such as family and relationship problems, serious health problems or workplace and financial stressors. It means ‘bouncing back’ from difficult experiences” (American Psychological Association, 2016).

Secondary traumatic stress: “The natural, consequent behaviors and emotions resulting from knowledge about a traumatizing event experienced by others” (Figley, 1999, p. 4). Figley (1999) further noted “it is the result of helping or wanting to help a traumatized individual” (p. 5).

Self-capacities: The extent to which an individual can accomplish three tasks: maintain a sense of personal identity and self-awareness across various experiences; tolerate and control strong negative emotions without resorting to avoidance; and develop and maintain meaningful relationships with others not disrupted by dysfunctional behavior or excessive preoccupation with interpersonal danger, rejection, or abandonment (Bigras et al., 2015).

Vicarious traumatization: “A process of changes resulting from empathetic engagement with trauma survivors” (Pearlman, 1999, p. 53). Pearlman’s (1999) conceptualization of VT encompasses elements of both psychodynamic and cognitive schools of psychology. Trauma work could impact a professional’s sense of self, spirituality, and worldview, which are collectively referred to as the frame of reference (McCann & Pearlman, 1992; Pearlman, 1999; Pearlman & Saakvitne, 1995; Stamm, 2010).

Years of service: Recorded working experience within an employee’s profession. Years of service refers to the length of employment, which is measured to determine eligibility, vesting, and benefit levels for employee participants in tax-qualified pensions.

Assumptions

The LEOs participating in this study were chosen via random selection. I assumed that the officers would have limited or no prior knowledge of VT. I also assumed that respondents would answer all questions truthfully. Next, I assumed that instruments used for this study would measure VT and resilience accurately. Finally, I assumed the respondents’ perceptions would be stable and not prejudiced by contextual matters (see Tabachnick & Fidell, 2013).

Scope and Delimitations

The scope of this study was limited to full-time LEOs who had direct contact with trauma survivors. The sample population included officers from metropolitan areas within the Midwest region of the United States. Findings may not be relevant to agencies outside of metropolitan areas.

Limitations

This study was limited to LEOs in large metropolitan areas in the Midwest region of the United States. Therefore, the results cannot be generalized to LEOs who serve in areas that are not considered metropolitan areas, such as townships, rural or suburban areas, universities and colleges, or hospital police agencies. An additional limitation was that officers participating in the study may not have given the survey their full attention due to the time required to answer the questions. Furthermore, this study was limited due to the possibility of participants not providing honest responses to the survey questions because of fear of showing signs of weakness, fear of individual experiences, and feelings of vulnerability. A final limiting factor was the lack of information relating to the history of trauma among the participants, such as the types of traumas experienced and the frequency of the exposure to traumatic incidents.

Participants were advised regarding the intentions of the study through an informed consent form. Participants were given information regarding how their reactions to VT and resilience would be measured. Because participants know what the surveys would entail, they may have reported less VT, especially if they lacked knowledge about compassion fatigue, stress management, and trauma-focused work. The justification for not changing the study's design to minimize these limitations was based on the culture of policing and the population being studied. Rose and Unnithan (2015) postulated that the police subculture imparts its members' ways of regarding norms, expectations, and general sentiment toward other criminal justice professionals and the general public.

Significance

Literature about LEOs and VT suggested explanations as to why first responders receive less attention in the literature than other professionals who may encounter similar traumas, such as social workers, nurses, and psychotherapists. Inzunza (2015) discussed ways in which police officers are routinely confronted with complex, emotional situations in their daily work and are not readily available to make information-based decisions if they are too emotionally engaged. Tovar (2011) suggested that having a festive spirit could minimize the impact of traumatic experiences. The current study's findings may help explain how age, gender, education, and years of service impact VT's development and whether resilience can be mediated among metropolitan LEOs in the Midwest region of the United States. Furthermore, findings may result in education and intervention, rather than stigmatization. The results of this study may be beneficial in increasing awareness and understanding of the psychological and emotional capabilities of LEOs who develop vicarious trauma. In addition, this study may identify the overall negative impact that VT can cause on metropolitan LEOs and the role of resilience as a protective factor.

An additional social change implication is the importance of understanding VT among law enforcement training curricula at the onset of training. The findings may support officers and their families as they interact on a day-to-day basis with survivors of trauma, and officers attempting to cope with the aftermath of critical incidents. Finally, positive social change may occur in the law enforcement community by having better educated, better prepared, and better equipped officers, thereby reducing the negativity

associated with the interactions of LEOs and communities around the world (see Rosenbaum et al., 2015). The study results may be relevant in aiding future studies within the fields of police psychology, criminal justice, and the profession of law enforcement.

Summary

The impact of VT can be hazardous to LEOs, which may negatively impact the quality of services provided to citizens and communities. This chapter provided a review of basic concepts of VT and the impact of VT on metropolitan LEOs in the Midwest region of the United States. This study addressed how gender, age, years of service, and education influence VT among LEOs. Chapter 2 includes an introduction to the relevant literature, identification of the literature search strategy, discussion and analysis of the study's theoretical foundation, review of the literature, and analysis related to the key variables.

Chapter 2: Literature Review

Exposure to traumatic incidents and trauma survivors is a part of the job for first responders. The purpose of the current study was to examine factors impacting VT and the role of resilience in metropolitan areas of the LEO community. I focused on LEOs assigned within metropolitan agencies in the Midwest region of the United States. Research and documentation have been extensive on VT from various perspectives and disciplines such as mental health, law, medicine, education, and childhood maltreatment (Brock et al., 2006; Katz & Haldar, 2016; Maguire & Byrne, 2017; Mairean et al., 2014). The purpose of this quantitative study was to examine gender, age, years of service, and education and how levels of VT are impacted among metropolitan LEOs in the Midwest region of the United States. I also examined resilience as a mediating variable.

During a traumatic incident such as a criminal act, survivors encounter professionals whose intention is to help them in their time of crisis. In many cases, LEOs are the first to respond, engage, or relate to a survivor, particularly when it is a case involving a criminal act (Catanese, 2010; Spencer et al., 2018). An LEO is exposed to the raw details of trauma (Ko et al., 2008) because they are repeatedly listening to the graphic details from the survivor, witnesses, and perpetrators. The graphic images and other evidence may also cause a trauma response (Carter & Carter, 2015; Catanese, 2010). The helping officer may have one interaction or multiple interactions with the survivor over time (Catanese, 2010; Kaiser et al., 2017). Due to the type of work required, LEOs may find themselves as the sole responder comforting a survivor such as a child who is beginning to develop bruising from a severe beating or a woman who has

found her teenage son unresponsive from a self-inflicted gunshot wound. This literature review consisted of an examination of the literature related to age, gender, years of service and education along with the mediating variable resilience in metropolitan LEOs. A brief review of the literature about PTSD, stress, CF, STS, compassion satisfaction (CS), and PB precedes the section on VT because it is necessary to understand these constructs to understand the concepts of VT.

Literature Search Strategy

The literature review search strategy included collecting information relevant to LEOs, VT, and resiliency from databases accessed through the Walden University Library. The EBSCO database system was used to acquire recent and relevant literature, focusing on peer-reviewed scholarly articles dated between 1971 and 2021. The following databases were beneficial in obtaining information: ProQuest, PsycINFO, SAGE Journals, PsycArticles, Thoreau Multi-Database, Academic Search Premier, SocIndex, Social Sciences, Citation Index from Thomson Web of Science, ScienceDirect from Elsevier and Opposing Viewpoints in Context, and Research Starters.

The following keywords were used to seek articles related to this study: *vicarious trauma, trauma, vicarious trauma symptoms, vicarious traumatization and police, police and secondary traumatic stress, police officer, law enforcement officer, vicarious traumatization and LE officer, first responders, trauma victims, trauma survivors, professional burnout, compassion fatigue, stress response, stress, psychological health, ethical considerations, post-traumatic stress disorder, resilience, absenteeism, stigma and evaluation, police education, police academy, police recruits, adversity, vicarious*

traumatization and predictors, vicarious trauma and females, vicarious traumatization and men, gender, and vicarious traumatization.

Theoretical Foundation

Constructivist Self-Development Theory

The CSDT consists of a combination of cognitive and psychosocial theories (McCann & Pearlman, 1992). CSDT was created as an aid in the understanding of psychological transformations of therapists who collaborate with traumatized clients. To clearly understand CSDT, Piaget's cognitive schemas theory and Erikson's psychosocial development theory informed the study. The concept of VT is based on the CSDT. The basic framework of the CSDT focuses on the underlying reasons for the psychological changes that occur when a person's work experiences of helping others begin to evolve and affect core beliefs (McCann & Pearlman, 1992; Vrana, 1992). The assertion of the CSDT is an individual's persona will be adversely altered as a result of being exposed to another person's trauma (McCann & Pearlman, 1992). The key to reducing the cognitive disruptions is understanding that parts of the developing self are susceptible to trauma (Saakvitne & Pearlman, 1996). Traditional theories focus on pathology, symptoms, diagnosis, and specific events. In contrast, CSDT emphasizes adaptation, the significance of the event to the individual, and the individual's reaction to the event. The approach of the CSDT is to look at symptoms as adaptations to the events (Saakvitne & Pearlman, 1996).

Individuals form their ways of thinking based on their sense of reality and how their realities are interpreted (McCann & Pearlman, 1992; Williams et al., 2012). CSDT

has five segregated psychological systems (McCann & Pearlman, 1992). Self-capacities, which are strongly shaped by a person's capacities for inner balance, refer to capacities to manage intense emotions, to feel purposeful and deserving of love, and to sustain compassion for others. Self-capacities are the foundational standards for understanding and determining how noteworthy events will be integrated into a person's life. Ego resources refer to the ability to negotiate interpersonal connections; make good choices; and develop skills in self-awareness, willpower, initiative, and the desire to strive for personal growth. Ego resources are key in navigating interpersonal relationships, for instance having the ability to foresee consequences, implement measures to protect oneself, and set and maintain boundaries. Frame of reference refers to an underlying sense of identity, worldview, and spirituality. The frame of reference is the lens through which a person views the world and interprets subjective experiences within the world. Psychological needs and cognitive schemas include a person's feelings of safety, trust, esteem, intimacy, and control. Memory and perception refer to a person's cognitive, visual, emotional, somatic sensory, and behavioral modalities. These five areas of self that can be impacted by a traumatic event may also impact the helper, causing them to experience VT (Saakvitne & Pearlman, 1996). The helper's controlling behaviors are an attempt to protect family members from criminal or traumatic acts. The officer's behavior is dependent on the degree of disruption between the survivor's trauma and the existing cognitive schemas as well as the helper's personal trauma history (McCann & Pearlman, 1992).

Research on schematic representation has demonstrated a once healthy cognitive schema can become maladaptive over time (Karaffa & Koch, 2016; Pulverman et al., 2016). Branson et al. (2014) applied the CSDT in a study of VT and decreased sexual desire among behavioral health clinicians. Branson et al. (2014) noted the findings indicated that the behavioral health clinicians who struggled with VT, also struggled with sexual desire. This study was significant for everyone involved, including the clinician, client, and the community.

VT was found to be a major factor in high turnover rates in social services (Benton, 2016; Conrad & Kellar-Guenther, 2006; Kim, 2015; Perron & Hiltz, 2006; Pryce et al., 2007), suggesting the delivery of services can be negatively affected, leaving clients and clinicians therapeutically neglected (Pryce et al., 2007). Middleton and Potter (2015) used CSDT to examine the causal relationship between VT and child welfare professionals' intent to leave their organizations. Their findings indicated child welfare professionals who had experienced high rates of VT were more likely to leave their organizations.

Miller et al. (2010) used CSDT while interviewing judges who collaborated with a fellow judge who was shot and killed while working in his office. The results showed that all of the judges who collaborated with the victim were affected and experienced cognitive distortion to at least one of the following needs: trust, esteem, control, intimacy, and safety. Middleton and Potter (2015) and Miller et al. referred to VT as grounded in CSDT and described the resulting changes as pervasive, cumulative, and permanent. CSDT was selected for the current study to answer the research questions because VT

and the disruptions in the belief system of an individual working with trauma survivors were aligned with the principles of CDST.

Resilience Theory

Resilience is linked to life stressors as well as an individual's unique coping capacity. Resilience theory addresses the strengths of people and systems that empower them to overcome adverse situations (Ledesma, 2014). Resilience theory is a multifaceted field of study addressed in the literature by social workers, psychologists, sociologists, educators, and others over the past few decades. The term *resilience* is derived from the Latin verb *resilire*, which is defined as recovering from difficult or harmful situations (Fernandes et al., 2018). The construct of resilience surfaced near the end of the 20th century (Ledesma, 2014). Garmezy, a developmental psychologist and clinician from the University of Minnesota, became known as the grandfather of the resilience theory due to his pioneering efforts in resilience science and developmental psychopathology (Masten & Cicchetti, 2012). The premise of the theory suggests that an individual's functioning level or ability to develop resilience is dependent on the individual's ability to restructure cognitive patterns or perceptions of an adverse experience (McCann & Pearlman, 1992). There are three concepts associated with resilience that determines an individual's ability to function during or after adversity: survival, recovery, and thriving (Ledesma, 2014). An individual may be at any of these stages when faced with adversity.

The literature indicated that an individual would respond in three separate ways when confronted with a challenge. They will survive the challenge, recover from the challenge, or thrive as a result of the challenge. The person will continue to function,

though it may not be at full capacity (Ledesma, 2014). Ledesma (2014) postulated that variables that characterize resilience and thriving are strong coping mechanisms, self-esteem, determination, tenacity, adaptability, self-efficacy, positive affect, optimism, and persistence. Recovery indicates a return to a normal level of functioning. However, during the process, a cognitive transformation takes place in response to being faced with the challenge or adversity (O'Leary, 1998). Attributes such as gratitude, kindness, hope, and bravery have been shown to function as protective factors against normal life stressors by helping a person to adapt positively. Empirical studies in the area of resiliency showed that character can be a significant predictor of resilience. H. J. Burnett and Wahl (2015) noted a scarcity in studies that addressed resilience and its impact on CF, CS, and PB. The trauma that LEOs are exposed to while performing their daily tasks made the resilience theory relevant to the current study.

Literature Review

Psychological Stress

Researchers recognized law enforcement as a dangerous profession with an enormous amount of psychological stress (Basinska et al., 2014; Bertilsson et al., 2019; Rose & Unnithan, 2015). To understand the behaviors and effects of psychological stress on LEOs, it is important to understand law enforcement's history and functionality. Law enforcement duties have been shaped by the Peelian principles, also known as the Metropolitan Act of 1829 (Loader, 2016; Lumsden & Black, 2018; Schlosser et al., 2015). The Peelian principles are nine principles that have become the foundational guidelines for best practices for developing police departments in the United States. The

nine Peelian principles were established during a time when the only responsibility for LEOs was to maintain order (Lewis et al., 2013). Law enforcement duties have since become more empathetically engaging (Inzunza, 2015). Training academies do not prepare officers for emotional and psychological demands (Blumberg & Papazoglou, 2019).

Selye coined the term *stress* and has been regarded as the father of stress research (Tan & Yip, 2018). Selye originally used physics to describe the interaction between a force and the resistance that counters that force. Selye (1956) documented that stress is the way the body responds to any nonspecific demand. Selye further claimed that acute stress is different from the response to a chronically applied stressor. This later became known as Selye's general adaptation syndrome theory (Fink, 2016; Tan & Yip, 2018). Decades of literature have shown that police work is highly stressful and can have a profound effect on the mental and physical health of individuals who have chosen a career in law enforcement (Abdollahi, 2002; Bishopp & Boots, 2014; Bishopp et al., 2019; Pasillas et al., 2006). According to R. J. Burke (2016), police work can generate a great deal of stress, and much of it originates from two main sources: organizational and environmental stress. Although officers have been known to develop coping mechanisms, they are not always beneficial, and therefore stress remains a leading cause for concern. (Paterson, 2021). When stress gets to the point of being unbearable, uncontrollable, or overwhelming, it can cause physical ailments such as inflammation of internal organs, cardiovascular diseases, or other medical conditions (Southwick & Charney, 2012). An

extreme amount of stress can also be a precursor for depression, anxiety, or burnout (Karatoreos & McEwen, 2013; Southwick & Charney, 2012).

Law Enforcement Stressors

Law enforcement is characterized by work-related stressors or exposures to stressors that are likely to increase emotional and psychological illnesses (Bell & Eski, 2016). Although law enforcement seems to predispose LEOs to stress, researchers suggested that individual coping strategies help support LEOs in coping with the traumatic experiences within their work environments (Bergman et al., 2016). According to Branche (2018), LEOs' mental health is critical in their personal lives but also for the safety and security of the community. The literature suggested that the law enforcement profession is among the most stressful careers, which increases the need to identify key stressors impacting LEOs' psychological health and well-being.

Fundamental to the law enforcement community is the recurring experiences of stressful events that negatively influence the officer's ability to execute daily tasks effectively. Britt et al. (2016) categorized the stressors affecting LEOs, such as administrative stressors and occupational stressors. Organizational stress has been identified as causing anxiety and depression (Bullock & Garland, 2018). According to Bryant-Davis et al. (2017), the prevalence of organizational stress and its unparalleled effects on the psychological well-being of LEOs is because organizational stressors are mostly oppressive, inevitable, and uncontrollable.

As noted by Carleton et al. (2020), the elevated level of stress and anxiety caused by survivors' experiences trigger disturbing emotions among LEOs. Similar findings

were reported by Christopher et al. (2016), who noted that survivors' experiences are the key cause of trauma among military veterans when they are reminded of horrific events. Similar outcomes were reported by Crosby (2016), who identified violent incidents such as rape, abduction, explosions, and domestic violence as the primary cause of stress among LEOs.

Burnout amongst LEOs is another critical cause of stress. A study conducted by Fleischmann et al. (2018) identified exhaustion as a cause for burnout and negative workplace stress. High workplace demands can lead to burnout and other issues, such as sleep deprivation, flashbacks, and other depressive symptoms related to past encounters. Categorically, the literature reviewed above strongly suggests that burnout is a crucial stressor within the law enforcement community. Burnout is considered a psychological syndrome that originates from persistent or repetitive exposure to interpersonal stress within the workplace. According to Gill et al. (2018), such disclosure may be linked to an overwhelming feeling of total exhaustion, a sense of detachment from the job and a sense of ineffectiveness, and lack of accomplishment. Similar thoughts are expressed by Fyhn et al. (2016), who considered burnout syndrome as a disorder that may occur over a long time of exposure to alarming experiences. Due to long-term exposure, the process may result in the accumulation of mentally stressful situations, stopping officers from effectively executing their duties (Forum, 2019). Researchers have focused on establishing the cause of burnout in the workplace, particularly within the law enforcement environment. Gillispie et al. (2016) identified six critical predictors of burnout among police officers: the amount of workload-specific control mechanisms,

participation in the community, organizational values, motivation, and fairness of leaders. A study conducted by Carleton et al. (2020) suggested a consistent and statistically significant relationship between the above six key predictors of burnout in the work environment and the level of burnout experienced by LEOs. The above studies point to the fact that burnout is a genuine issue affecting the performance of LEOs. High stress among LEOs is linked to traumatic incidents such as death or the threat of death. Gronholm et al. (2017) suggested factors such as communication between officers, long work hours, rules, and conditions specific to law enforcement work, cause elevated levels of stress. Comparably, Guay et al. (2017), noted the display of names and pictures of officers lost in the line of duty are a leading cause of stress among LEOs.

Notably, for LEOs who fail to seek psychological support, displaying names, pictures, and other vicarious experiences may be traumatizing in short and long term (Haecker, 2018). In a different but related study, Haugen et al. (2017) reported testifying in court regarding past or upsetting experiences could also be considered a primary cause of stress among LEOs.

Extensive media coverage of police operations in highly stressful situations has also been considered a fundamental cause of stress among police officers. While conducting their duties, police officers often worry about the impact of their actions if displayed publicly by the media. Heath et al. (2017) established that society embodies the media to consider officers as being hostile, thereby isolating them from the public. In turn, such a conceptualization of LEOs as being cruel may cause officers to feel lonely, isolated, or rejected by the very society they took an oath to protect and serve. Van Craen

(2016) found that the coverage of stories and controversies about risky operations conducted by police officers in a highly dangerous environment creates criticisms against LEOs and may reduce the public's confidence and trust in the work of LEOs. Unfortunately, such practices may only cause more stress among officers and contribute to their symptoms of PTSD.

In addition to covering portrayals of crime, media coverage may magnify the activities of LEOs within the community (Hilliard, 2019). With the increase in media coverage and scrutiny of the actions taken by officers to safeguard the community, Hope (2017) noted that LEOs are always on high alert of being criticized or condemned for the decisions they must make during stressful encounters. Heyman et al. (2018) report similar findings when they noted how vicarious experiences either directly or indirectly cause stress, anxiety, and depression among officers, especially when they are broadcast publicly and highly criticized.

Organizational structures may also be a key source of stress among LEOs. According to Janssens et al. (2018), organizational structures dictate the nature of the relationship between police officers, their organizations, and other agencies. Therefore, it is vital to ensure that LEOs understand their organizational culture, and the prevailing culture is designed to reduce stress within their operations. In a study to compare policing to other occupations, Jung et al. (2017) investigated stress-related outcomes among twenty-six employees drawn from different companies and professions. Based on the results, the investigators established that officers scored lowest on physical health, mental health, and even job satisfaction (Jung et al., 2017). Moreover, the researcher noted law

enforcement organizational characteristics such as bureaucracy and strict rules increased stress levels among LEOs (Jung et al., 2017).

Research has documented that law enforcement is an occupation characterized by prominent levels of stress (Kaplan, et al., 2018). As such, LEOs are more likely to be exposed to trauma related stress while on duty compared to other occupations (Karaffa & Koch, 2016). Studies have documented the causes of stress and categorized various sources within the law enforcement occupation (Janssens et al., 2018; Jung et al., 2017). Sources of stress in law enforcement can be linked to a variety of factors within the workplace. In their study, Lee et al. (2016) involved 193 male officers and 153 female officers from a large metropolitan region in New England. They established five primary critical sources of stress in policing:

1. Work-related stress, such as gruesome crime scenes.
2. The availability of peer support or trust, including managerial support.
3. Social or family influence, such as work-family conflict.
4. Bureaucratic characteristics of policing rules such as impersonal rules and
5. Accessibility to coping interventions such as substance abuse.

In a different study, Leppma et al. (2018) investigated operational stressors inherent in the law enforcement community and established that organizational stressor such as bureaucratic rules contributed to the negative experiences of officers.

Lijtmaer (2017) identified limited support from the administration within various police departments as well as incompatible or incompetent patrol partners as key organizational stressors that increased stress among officers. Additionally, Lumsden and

Black (2018) reported organizational stressors such as inadequate personnel in the workforce, insufficient support by supervisors, and excessive rules in the workplace as key stressors that cause unnecessary stress among law enforcement personnel. These findings are comparable to those reported by McCormack and Riley (2016). They established operational stressors include abused or battered children Ménard et al. (2016), high-speed chases, and the use of deadly force (Mulay et al., 2016), accidents in patrol cars, and responding to felonies in progress. Another critical source of stress in the law enforcement community is the impact of work responsibilities on families and marriages. Moreto (2016) investigated the impact of job stress and physical exhaustion on marital relationships using nineteen male police officers and their corresponding spouses. Participants were asked to document their stressors in a diary for thirty days and were required to participate in four-weekly laboratory collaborations. Based on the findings, the researcher reported that job stress and physical exhaustion negatively impacted marital relationships and families. The results indicated that job stress and negative emotions caused officers to be predisposed to divorce, domestic violence, and emotional conflicts that damaged their interpersonal relationships. In a study on PTSD prevalence among police officers in Canada, different stress levels among women police officers were identified (Ellrich & Baier, 2017). According to the study findings, male LEOs hostility was a form of stress among women LEOs.

In summary, the above section focused on identifying key factors that resulted in stress or trauma among LEOs. Based on the findings, it was established that traumatic experiences such as abused or battered women, sexual assault survivors, high-speed

chases, and traffic accidents were crucial sources of stress among officers (Ellrich & Baier, 2017). LEOs, in most cases, put themselves in risky situations. In effect, officers are likely to approach individuals who pose a danger to their safety, including individuals under the influence of drugs or alcohol, suspects of robberies, sexual assaults, and murder. According to Oxburgh et al. (2016), arresting suspects under the influence of drugs or those armed with weapons may be risky or dangerous when interacting with law enforcement. Such encounters cause officers to face death and life situations, increasing stress levels.

Compassion Fatigue

Figley (1995) defined compassion fatigue (CF) as a form of secondary trauma experienced by individuals who work continuously with traumatized populations. Compassion Fatigue has been used interchangeably with VT and STS (Figley, 1995, 2002). Figley (1995) was also known for having coined the term “compassion fatigue” (pp. 9) to describe “the cost of caring for those who suffer.” Van Hook and Rothenberg (2009) defined compassion fatigue as the inability to connect emotionally or empathetically with others. Knight (2013) noted a traumatic event is not required for compassion fatigue to develop. Although CF and VT share similar symptoms, the delineating component is trauma exposure. Researchers (Fowler, 2015; Osofsky et al., 2008) argue that CF and VT are the same. However, given that compassion fatigue may or may not involve trauma, there is a clear difference.

Papazoglou and Andersen (2014) conducted a study that explored CF and compassion satisfaction (CS) among a sample of police officers. The results were

indicative of elevated CF amongst the participants. On the other hand, a small percentage of the participants experienced elevated CS, noting that there is a moderate correlation between CF and CS was documented in this study. The correlation indicates that both CF and CS were present and elevated at the same time. Papazoglou and Andersen (2014) propose that there are critical periods in which CF is elevated during an officer's career, and CS is low and vice versa. Researchers noted CF has the potential to manifest into burnout and more serious mental health concerns such as PTSD and depression (Conrad & Kellar-Guenther, 2006). Previous work has focused on first responders with more severe mental health conditions such as PTSD and depression (Andersen et al., 2010). However, officers do not struggle from these conditions, yet their day-to-day experiences are not fully understood.

As previously noted, LEOs are likely to be affected by stress and compassion fatigue, which may have significant health, well-being, and job performance concerns. The research was found to scarce when examining all three constructs in combination with policing. However, Burnett et al. (2020) aimed to gather information regarding the prevalence of compassion fatigue, compassion satisfaction, perceived stress within a large United Kingdom police force and their relationship with personality, mental toughness, and self-care activities. There were 605 police employees who completed the questionnaire within the United Kingdom police force. The results demonstrated that 20% of the officers suffered from adverse psychological effects, and the individual differences and self-care regimens were predictors of these outcomes.

According to Turgoose et al. (2017), compassion fatigue relates to an individual's recovery process following emotional and psychological exhaustion. Papazoglou et al. (2019) conceptualization of compassion fatigue among first responding officers provided an advantage of how recovery capital may effectively be applied in police officers. Studies have suggested that newly recruited LEOs depict elevated levels of professionalism and commitment to the vision of making the community a better place. Nevertheless, with time, there is a possibility of cynicism that may set in, resulting in compassion fatigue's initial symptoms. Similar thoughts are echoed by Andersen et al. (2018), who reported that compassion satisfaction declines over a while when newly recruited police officers no longer find satisfaction in policing the community.

According to Papazoglou et al. (2019), compassion fatigue is related to the experiences that LEOs encounter in their work and the negative impact on their job satisfaction. According to Papazoglou et al. (2017), such feelings become an essential precursor for compassion fatigue among LEOs and its negative consequences. However, while compassion fatigue negatively impacts job satisfaction, Turgoose et al. (2017) stated that recognizing symptoms in the preliminary stages, allow officers to identify the issue and initiate effective strategies that can be used to overcome adverse effects.

Papazoglou et al. (2019) highlighted and supported compassion satisfaction and organizational support as key factors that help LEOs against compassion fatigue. According to Stancel et al. (2019), compassion satisfaction refers to the internal feeling of motivation that an individual derives by helping those in need. Therefore, according to

Andersen et al., (2018), compassion satisfaction becomes an inescapable tool for internal recovery among officers.

Providing resources to LEOs plays an essential role in managing and mitigating compassion fatigue development. According to Andersen et al., (2018), recovery capital entails internal resources that officers can use to reduce their stress levels, promoting job satisfaction. However, recovery capital differs from person to person, and it dictates how well an individual will cope with stress, anxiety, and depression. Russo et al. (2020) recommended the need to ensure that different workplace stressors are identified and how compassion fatigue develops among LEOs. Typically, high-stress occupations demand emotional labor. According to Papazoglou and Tuttle (2018), LEOs frequently engage in dual roles of protecting the community and attending to family issues, which can be emotionally demanding. For instance, when called to respond to domestic violence incidents, LEOs may show compassion to the survivors while at the same time ensuring that they maintain the necessary assertiveness or composure by apprehending the perpetrator. In this case, Burnett et al. (2020) defined compassion fatigue as the emotional cost that officers must sacrifice when providing care. Similar views are expressed by Turgoose et al. (2017), who reported that compassion fatigue could also be defined as a secondary trauma that may result in post-traumatic stress disorder, anxiety, depression, job dissatisfaction, and burnout. LEOs who witness traumatizing incidents such as sexual assaults are directly exposed to compassion fatigue or secondary trauma through the recollections of graphic images during the incident's victimization. A recent

study conducted by Brady (2017) reported in five LEOs investigated, they were highly susceptible to compassion fatigue due to work stressors.

Compassion Satisfaction

Compassion satisfaction (CS), unlike the other emotional responses, is characterized by positive emotions such as elation or an overall feeling of satisfaction when helping others (Stamm, 2010). Papazoglou and Andersen (2014) conducted a study that explored potential influential factors of CF and CS in LEOs. The results revealed officers involved in the study showed elevated levels of CF and CS. As a result of these findings, Papazoglou and Andersen (2014) theorized that elevated levels of CS could function as protection against CF's negative outcomes.

Compassion fatigue, STS, and PB are thought to be widespread in the health care and helping professions, which include physicians, nurses, and mental health practitioners (Gleichgerricht & Decety, 2014; Hegney et al., 2014; Zeidner et al., 2013). Studies focusing on CF, STS, and PB specific to police officers working cases limited to survivors of sexual assault, child pornography, sexual exploitation, and other sexual offenses are scarce in the literature (Turgoose et al., 2017).

Professional Burnout

Herbert Freudenberger coined the term "burnout" in 1974, based on his observations of drug addicts' behaviors under his care. They would stare at lit cigarettes until the cigarettes would burnout (Freudenberger, 1974). Moreover, his seminal work included studying the physical and mental exhaustion triggered by caring for others as professional work. Freudenberger became well known for developing the symptoms of

professional burnout. Professional burnout has been compared to VT and CF in the literature (Beaumont et al., 2016; Bell et al., 2019; Grant et al., 2019). Researchers measured burnout by the physical and emotional exhaustion experienced over a year (Rosenberg & Pace, 2006). The measurement methods changed accordingly based on the coping skills of the individual and the agency's support structures (Lee et al., 2016). According to Lee et al. (2016) burnout has been on the upswing amongst LEOs for reasons such as lack of opportunities for advancement, continuous decreases in benefits, as well as an increase in critical and traumatic incidents. As indicated by its name, professional burnout is defined as a stressor related to an occupation that causes emotional exhaustion.

Exhaustion embodies professional burnout, as does a lack of motivation, drive, or interest in the job (Ruotsalainen et al., 2015). Professional burnout may or may not include stressors induced by providing support to trauma (Newell & McNeill, 2010). Unquestionably, there are differences as well as similarities between professional burnout and VT. However, emotional symptomatology makes it difficult to discern (Knight, 2013; Van Hook & Rothenberg, 2009). Harr (2013) defined professional burnout as a multi-dimensional phenomenon that encompasses exhaustion and cynicism. A study conducted by Burke (2016) investigated psychological burnout amongst people working as LEOs. The participants reported feeling tired and emotionally depleted, hence calling it burnout. The findings were supported by a study conducted by Elliot et al. (2015), who noted a link between burnout and high fatigue levels. The majority of the participants in both studies were male officers. Bakker and Heuven (2006) conducted a gender-based

study, and the findings were indicative of burnout in both male and female participants. The findings discovered that heated exchanges between officers and citizens might cause the officers to experience burnout differently, which affects the officer's energy, leading officers to become cynical toward citizens. In each of the above-cited studies, the number of male participants doubled that of female participants. Therefore, the results may be less pertinent to female officers.

The lack of female participants makes it difficult to research the phenomenological differences between genders. Phenomenological studies are essential to discern findings by gender or when the focus is solely on female officers. Kurtz (2008) found gender-related jokes, work-related incidents, and a lack of family support contributes to burnout. Poor peer relationships may also be a contributing factor to burnout (McCarty, 2013).

A lack of support from supervisors has the potential to contribute to burnout as well, especially when grievances surrounding sexual harassment are not managed appropriately or taken seriously. A lack of support caused an increased number of female officers to leave the profession before retirement (Paille & Marche, 2019; Wilson, 2016). Conversely, a supportive relationship with a supervisor can increase an officer's length of service, regardless of burnout level (Benton, 2016). Burnout in professions that help others has decreased productivity and job performance, poor mental and physical health, problems in interpersonal relationships, and increased absenteeism (Rollins et al., 2016). Griffin and Sun (2018) found in a web-based study that minority officers and better-

educated officers revealed lower levels of work-related stress and lower levels of occupational burnout.

Law Enforcement Culture and Exposure to Vicarious Experiences

The law enforcement culture is characterized by a negative perception of “superiority” that makes it impossible for officers to seek health support when subjected to traumatic experiences. A study conducted by White et al. (2016) established a stigma attached to the culture of law enforcement, whereby LEOs consider themselves superior to others, thus finding it difficult to seek professional help when exposed to traumatizing events. Similar findings were reported by Wlodyka (2017), who noted the stigma within the law enforcement culture as a key practice that inhibited help-seeking behavior.

As supported by Zavala (2017), LEOs engage in work environments that impact their mental and physical health. In most cases, officers depend on their colleagues for psychological and emotional support while avoiding formal support due to the stigma attached to law enforcement. Taken together, the above literature strongly suggests the law enforcement culture plays a significant role in dictating coping mechanisms and help-seeking behavior among LEOs.

As opined by Watson and Andrews (2018), police culture is epitomized by norms, values, and perceptions which are designed to offer officers the opportunity to manage stressful conditions within their cohorts. Such connotations and conceptualizations of superiority within their culture have far-reaching impacts in determining the extent to which LEOs are willing to seek help. Police culture is often characterized by resilience to stressful conditions. As a result, those in the field of law enforcement are likely to avoid

seeking help when faced with stressful situations. Spence and Millott (2016) noted that such cultural perceptions and beliefs make it almost impossible for LEOs to seek help, particularly mental health, specifically after being exposed to trauma.

As previously noted, law enforcement has been widely recognized as an occupation rooted in constant exposure to stress, trauma, and death (Azeez & Isiugo-Abanihe, 2017). Therefore, the law enforcement profession is a high-risk group for emotional, psychological, and physical health problems. As a result of the dangers inherent within the job, concerns over equitable treatment in assignments, promotions, malicious or self-protective behaviors by supervisors has been recognized as crucial organizational stressors.

Exposure to stress and trauma, in combination with the police culture of being guarded with the expression of emotional pain or personal feelings, along with reluctance in seeking professional help, may put officers in a position that makes them unable to perform their duties adequately and efficiently despite the stressors (Bullock & Garland, 2018). However, it has been reported that, when officers are exposed to trauma, they rarely acknowledge the trauma and would rather negotiate on their own, as explained by (Fung et al., 2019). Additionally, Gronholm et al. (2017) described stigma as a complex and challenging construct with conjectural facets.

Similarly, stigmatization could result in feelings of shame and inadequacy, which may affect an individual's sense of self-worth and confidence, further delaying professional help for psychological distress. Involvement in roles such as military and law enforcement are often associated with distinct levels of stigma. As such, LEOs are

more likely to avoid seeking professional help because they expect to be ostracized and passed over for career opportunities and advancement (Haugen et al., 2017).

According to Haugen et al. (2017), LEOs are more likely to come into contact with individuals suffering from mental illness more so than the general public. For example, LEOs are often the first responders to incidents involving individuals who are experiencing a psychological emergency, whether it is drug or alcohol-induced or otherwise. Therefore, they are often involved in helping with mental health disorders. Consequently, causing more exposure and more cynicism from members of the community. Karaffa and Koch (2016) further demonstrated that LEOs undergo stresses related to negative encounters, ranging from occupational stressors and administrative stressors. In the end, such stressors are likely to cause mental health problems for the officer who is reluctant to mental health support. Despite these challenges, officers develop mechanisms to cope with the rapidly growing psychological stressors. The evidence presented in the above literature suggests that work-related stressors subject officers to domestic violence, emotional conflicts, and damaged family relationships.

White et al. (2016) assert negative rhetoric regarding psychological distress within police departments impede one's ability to recognize distress. As a result, officers fail to seek peer support or professional help. Moreover, LEOs experience pressure in maintaining a strong persona. Hence, avoidance in accessing professional services for fear of judgment by their administrators. Overall, the studies mentioned above reveal stigmas associated with mental health distress within the police culture that may

influence the symptoms. Hence, masking realistic emotions among law enforcement officers.

Law Enforcement Coping Strategies

Research on occupational stress has suggested that law enforcement officers are exposed to stressful events throughout their careers, which are likely to disrupt their psychological and physical well-being and perceptions. Researchers have also noted that repeated exposure to stress and trauma negatively impacts their commitment to protecting and providing service, as well as job performance. Harris et al. (2017) noted the importance of having access to different methods and tools for coping with stress. The discussed below are the adaptive and maladaptive coping strategies used by LEOs to improve their psychological and physical well-being.

Peer support has been identified as an important source of coping with stress or vicarious traumatization. Ermasova et al. (2020) conducted a study in Australia that explored how police investigators coped with job-related stress. Their study sampled thirty-two participants. The findings concluded that the use of informal briefings such as sharing of personal thoughts with colleagues and exchanging concerns played a significant role in providing emotional support for police officers assigned to investigate stress-provoking scenes such as missing or kidnapped children, domestic violence, sexual assaults, suicide, murders, mass casualties and organized crimes (Ermasova et al., 2020).

According to a study conducted by Allison et al. (2019), the use of peer support among officers has benefits, including developing a greater sense of self-efficacy such as opportunities for helping others, an increase in self-awareness by sharing common

experiences with peers as well as developing vital coping skills from others who have had similar situations. Alcohol and drug use are another coping mechanism research has identified amongst LEOs when exposed to traumatizing incidents. For instance, a study conducted by Seigfried-Spellar (2018) involving 123 LEOs. They reported 77% of the participants considered alcohol as a fundamental substance that could be used to reduce reminders of a past traumatizing experience. Similar findings were reported by Ferrante (2017), who established that 80% of the 203 surveyed strongly considered alcohol an informal way of coping with a traumatic experience. Social resources are important in helping officers to cope with stress and to mediate occupational burnout. Therefore, peer support may offer emotional support for LEOs.

According to a study conducted by Bag (2019), families play a significant role in helping officers overcome traumatic experiences linked to their work's nature. According to a study conducted by Violanti et al., (2018), family support practices such as counseling, words of encouragement, acknowledgment, recognition, appreciation for the work, and sharing experiences reduced PTSD among LEOs. Family support, in general, has been identified as an effective coping strategy.

Research on occupational stress has suggested that LEOs are exposed to excessive distress levels, which are likely to impair their psychological and physical well-being and perceptions. Stressors among LEOs have been explored, including gender roles as well as areas for intervention. Researchers have further established that LEOs repeated exposure to trauma and stress negatively impacts their commitment and job performance. Researchers have argued that the experiences of emotional distress can be reduced by

ensuring that appropriate coping strategies are identified and in place to support officers with compounding and daily stressors. Therefore, identifying strategies used to lessen negative work-related encounters becomes imperative.

Adverse Outcomes and Law Enforcement Stressors

Brady (2017) summarized stressors in law enforcement result in negative emotions and has the potential to override an officers' training which may lead to mistakes in judgement. Burnett et al. (2020) reports similar thoughts, noting that due to the stressful nature of law enforcement, feelings of anger, burnout as well as depression were common; and negatively influenced the performance of LEOs. Andersen et al. (2018) also noted that violence amongst LEOs has been identified as the most prevalent negative response to increased exposure to traumatic experiences.

Over the years, VT experienced by LEOs has far-reaching implications on their families and social relationships. A study conducted by Papazoglou et al. (2020) to establish the effects of law enforcement stress determined that horrifying experiences such as sexual assault and abused children cause post-traumatic disorders and depression among officers. According to Ellrich and Baier (2017) PTSD occurs when an individual is directly exposed to traumatic exposure. Upon the exposure, Papazoglou and Tuttle (2018) noted a change in symptoms, including disturbing memories related to the event, a tendency to avoid reminders of the events, and other psychological challenges. Given the environment in which LEO operate, they are frequently exposed to traumatizing events such as viewing dead bodies, having one-on-one encounters with children who have been abused or neglected, aggressive assaults as well as involvement with mass shooting

incidents that causes them to be at risk for PTSD. In their findings, Stancel et al. (2019) established that such exposures relating to VT significantly impair an officer's mental health and negatively influences their ability to perform their duties. Regarding its impact on their lives, Papazoglou et al. (2017) reported that VT might have a long-term effect and it increases the chances of behavioral dysfunction, including alcohol and substance abuse, aggressive behavior, and suicide.

Current literature has linked increased substance abuse in police officers to acute occupational stress. Purba and Demou (2019) conducted research to systematically assess the relationship between organizational stressors and mental well-being in law enforcement officers. There were significant correlations identified for organizational stressors. Further, the most consistent organizational stressors included lack of support, job pressure, administrative and organizational demands, and long work hours (Purba & Demou, 2019). Roach et al. (2017) reported increased stress and exposure to traumatizing events coupled with reduced social support from families and colleagues caused LEOs to engage in alcohol and drug-related activities to reduce anxiety, re-occurring images of traumatic events, and depression. Similarly, Turgoose et al. (2017) reported that LEOs are likely to abuse alcohol more than any other occupation due to their work's stressful nature, leading to increased anxiety, depression, and PTSD. A study conducted by San Too and Butterworth (2018) established that at least 25% of LEOs in the United States have alcohol and substance abuse problems linked to work-related stress. In summary, the above literature suggests that work-related stress is a crucial factor that increases LEOs' likelihood of engaging in alcohol and substance abuse.

Post-Traumatic Stress Disorder Versus Vicarious Traumatization

Post-traumatic Stress Disorder (PTSD) has been extensively researched (Dornbach-Bender et al., 2019; Dorrington et al., 2019; Grodin et al., 2019; van der Velden et al., 2019). An exhaustive review of the literature relating to PTSD is beyond the scope of this study. However, a brief review is deemed necessary due to the relationship between PTSD and VT.

Post-traumatic Stress Disorder and VT are not the same. Post-traumatic Stress Disorder is a diagnosable mental health disorder (American Psychiatric Association, 2013). It is a reaction that is common when one experiences symptoms for at least one month following a traumatic event in which there is direct involvement (APA, 2013). The Diagnostic and Statistical Manual of Mental Disorders, fifth edition (DSM-V) has undergone significant changes since the DSM-IV. Post-traumatic Stress Disorder was removed from anxiety disorders and reassigned to a newly created class of disorders triggered by exposure to stressful or traumatic events. The symptoms may include nightmares, avoidance, disconnection, recurrent and intrusive memories of the trauma, feelings of hostility, limited effect (persistent inability to experience positive emotions), anxiety, depression, and aggressive behavior (APA, 2013, p. 271). The constructs for secondary exposure to trauma are now included in the DSM-5 definition of PTSD (APA, 2013, p. 271).

There are four (4) diagnostic criteria that meet the criteria for PTSD. Criterion (A) states a person has been exposed to a traumatic event in which both of the following were present: (1) the person experienced, witnessed, or was confronted

with an incident that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others, and (2) witnessing in person, the event(s) as it occurred to others. (3) Learning that the traumatic event(s) occurred to a close family member or friend, the event must have been violent or accidental. (4) Experiencing repeated or extreme exposure to aversive details of the traumatic event(s) (e.g., first responders collecting human remains; police officers repeatedly exposed to details of child abuse) (APA, 2013, p. 271).

The definition for PTSD includes learning about traumatic events from others. In the case of a law enforcement officer who shares traumatic details with another officer. The officer hearing the details may eventually become indirectly impacted by secondary exposure (APA, 2013). As previously noted, a diagnosis of PTSD includes direct exposure to a traumatic event, while an indirect or secondary exposure to a traumatic event may present as VT. The delineating factors that distinguish VT from PTSD are secondary, rather than primary exposure to trauma, and shifts in cognitive schemas integrated into the individual's world views.

Research suggests LEOs are at an increased risk of developing negative affect and stress-related symptoms following a tragedy (Breslau et al., 1997; Brewin, et al., 2000; Faust & Ven, 2014). In a study that measured the symptoms of VT in LEOs, Van Lelyveld (2008) noted 83% of the LEOs experienced full VT symptomology, 14% had moderate symptoms, and 3% had no symptoms. Van Lelyveld explained that VT resulted from exposure to survivors of rape, child abuse, or traumatic death.

Law Enforcement and Age Differences

The age difference is a contributing factor to depression and stress among LEOs. According to Lumsden and Black (2018), younger officers experience less depression than their colleagues between the ages of 40 and 49. In middle age, LEOs experienced stressors at a slightly higher degree than officers aged 50 years and above.

When LEOs are recruited, during their early years of service, they are usually excited, curious, enthusiastic, and, therefore, less stressed (MacEachern et al., 2019). There is a positive correlation between age and the length of stay in police services; thus, officers who have stayed in service for a longer period of time are likely to be exposed to more work-related trauma for a longer time and are more likely to experience more stress (Lumsden & Black, 2018). From the above literature, it should be noted that young officers experience less stress than veteran officers who have served for a longer period.

The relationship between age and depression may point to an adverse effect of trauma exposure at the workplace and within various parts of the society (Leppma et al., 2018). Age is a contributor to increased depression in society (Lijtmaer, 2017), and a combination of increasing age and exposure to work related trauma leads to more stress on the officers. LEOs who have remained in service for an extended period may experience a combination of increasing age and exposure to work-related trauma (Lumsden & Black, 2018). Reduction in the rate of depression among officers aged 40 to 49 years to officers aged fifty and older is consistent with Lawrence's (2017) research, who presented findings that shows depression decreases with an increase in age. One of the plausible causes for the decrease in the levels of depression is either career attrition or

retirement. It can also be concluded that LEOs in the age bracket of 40-49 years' experience more stress due to an increase in responsibilities, unlike their colleagues fifty and over years of age, who are approaching retirement status.

Leppma et al. (2018) undertook a study with the Buffalo Police Department and established a curvilinear relationship between stress and the length of stay in police services. Officers who were employed longer than 15 years in the police service reported less depression and stress (Leppma et al., 2018). Officers who have served for 20 years in the Buffalo, New York Police Department are eligible for a retirement pension regardless of their age (Leppma et al., 2018). Therefore, officers who lasted 20 years in service have an opportunity of retiring in their mid-forties as well as a chance of pursuing other careers.

A study by Karaffa and Koch (2016) postulates that 42% of LEOs within the ages of 40 to 49 years have at least 16 years to serve in police services, 9% of whom have served for more than 20 years and qualify for retirement. A study by Kaplan et al. (2018) indicated that 73% of officers over the age of 50 years have served for more than 20 years, which is an indicator that they enjoy providing protection and service and may have different coping mechanisms to manage the stressors at their workplaces as compared to officers who departed from police services. A study by Kaiser et al. (2017) investigated retired police officers. It was noted that the choice to retire from police services was associated with trauma and symptoms of depression. Veteran officers experienced depression as a result of traumatic events encountered by officers while on duty. From the above study, there is an indication that veteran police officers undergo a

great deal of stress in their work, to a point where they are allowed to retire after 20 years of police service.

According to Lee et al. (2016), veteran LEOs hold higher ranks than the younger officers. A small percentage of officers that are 50 or more years of age are allowed to become patrol officers. The patrol division is usually dominated by officers younger than 49 years of age (Lee et al., 2016). Law enforcement officers endure more incidents involving trauma and stress in comparison to ranking officers. These traumatic events may lead to depression (Lee et al., 2016). From the above literature, it can be pinpointed that veteran or ranking officers, 50 years of age or older endure less stress than their younger counterparts 40-49 years of age because they are given responsibilities like patrolling. In contrast, veteran officers are given administrative or supervisory responsibilities in service (Lee et al., 2016).

Years of Service and Vicarious Traumatization

There is little in the existing body of research regarding the relationship between years of service and trauma. Michalopoulos and Aparicio (2012) noted the years of experience that social workers served was a contributing factor to VT. Over time, the interactions these individuals had with clients increased the risk of developing VT, though this risk was mediated by support factors, such as social support and experience. Concerning years served, judges also experienced a similar phenomenon, experiencing increased levels of VT the more years they served on the bench (Jaffe et al., 2003).

A similar result was found in research among Cosden et al. (2016), who examined VT among substance abuse treatment providers. The more years these

individuals spent working with substance abusers, the more likely they were to experience VT. Consequently, the general body of literature over more than a decade indicated that the more years a person spent serving in various capacities working with the traumatized, the more likely the provider was to experience VT themselves. Most pertinent to the currently proposed study was the association between judges and years served as a predictor of VT (Jaffe et al., 2003). Likewise, researchers noted an association between tenure and VT among corrective services employees (Campbell & Bishop, 2019). Consequently, there was an indication that there is a relationship between years served and VT, specifically among those working in various law enforcement branches and the judicial branch. However, the literature did not extend to those working directly as LEOs. There is room in the literature for exploring the impact of VT within the legal system further by examining how it occurs among LEOs. It should be noted that years of experience were not always associated with increased levels of VT. In at least one study, researchers noted that child counselors experienced VT regardless of their years of counseling (Hammonds, 2019). Lonn and Haiyasoso (2016) also noted that rather than years served, it was the total caseload that counselors managed that impacted the chance for VT. There were indications in the literature that factors other than years served could impact the chances of VT occurring in them. However, the literature on years of service and VT remains quite thin, with little attention paid to the association between the two. As such, it remains difficult to draw firm conclusions regarding the relationship between the two. The lack of research into the relationship between these two constructs suggests

the potential for future research examining the relationship in multiple contexts, including law enforcement. The currently proposed study may address this gap in the literature.

Gender Differences in Law Enforcement

There are distinct reasons to conclude that women undergo significantly more stress than their male counterparts. In the 1970s, federal legislation created vacancies specifically for females to fill within police agencies, leading to record-high levels of female recruits (Atkins & Hale, 2018; Lawrence, 2017). Therefore, female officers are members of a token group; hence they are likely to undergo various experiences at their place of work than men. Therefore, stress amongst female officers may be anticipated due to the challenges they face in the workplace (Maguire & Byrne, 2017). Female officers often experience traditional stress associated with the job as well as additional stressors resulting from gender differences (Maguire & Byrne, 2017).

MacEachern et al. (2019) conducted a longitudinal, quantitative study on male and female officers and found that problems experienced in the workplace are issues related to stress. Other researchers have also documented that workplace problems are a main cause of stress (Maguire & Byrne, 2017; Martínez-Martí & Ruch, 2017). Masson (2019) conducted a study in the USA that involved 1,087 police officers selected from twenty-four police departments. This study showed that 39% of women and 28% of men experienced stress related to workplace problems (Masson, 2019). Females are most affected, they suffered language harassment, underwent traditional bias, and were treated as if they did not belong or never existed.

Physical abilities were used as a predictor of stress. The strongest predictors for men were ineffectiveness and being mocked and termed as a failure by other officers; weaker but relevant predictors for men were language harassment and physical ability (McCormack & Riley, 2016). The study also concluded support from family members or co-workers was not significantly related to stress, and Masson (2019) did not consider if the stress was caused by token status due to ethnicity or organizational size and community differences. From the literature relating to the relevance of workplace challenges in predicting stress, it can be concluded that workplace problems are the primary predictors of stress for both male and female officers, after including other potential stressors in the predictive model.

McCormack and Riley (2016) suggested that most studies on stress amongst LEOs fail to address gender differences, a key source of stress in the profession. The findings from this study suggest that law enforcement stress and burnout are not addressing the high-stress setting; instead, it is embedded in the process of policing and gender structures. Few studies have examined how gender differences show up as negative health results. Among these studies, MacEachern et al. (2019) reported that female officers inherited metabolic syndrome, a medical condition sourced from stress, though male officers were not affected. MacEachern et al. (2019) found that female officers suffered from hypercholesterolemia and diabetes and reported more stress than male officers.

Gender and Vicarious Traumatization

The first female police officer took her oath in the early part of the twentieth century (Duffin, 2010). Over the last 20 years, females have been entering the policing profession in droves (Verrecchia & Sloan, 2013). Nonetheless, the female role in law enforcement continued to focus primarily on the needs of women and children. By 2008, the United States Bureau of Justice on law enforcement organizations reported 100,000 sworn female officers at the federal, state, and local levels throughout the United States (Rabe-Hemp & Miller, 2018). Rigid gender roles began to shift along with females' increase in policing (Bernat & Holschuh, 2015). Female police officers' assignments and promotions evolved to include nontraditional roles, previously conducted by male LEOs officers (Batton & Wright, 2019; Chen & Lin, 2013). These roles included traffic officers, investigators, detectives, K-9 officers, Chief of Police, and Sheriff (Kowalczyk & Sharps, 2017).

Although sources of stress remain the same for all LEOs regardless of gender, research has shown that female officers have a higher statistically significant psychological and physical stress (Haarr & Morash, 1999). When Duxbury and Halinski (2018) investigated female police officers, they researched internal and external stressors. They found five antecedents to work-role overload in policing: competing demands, the court system, pressures to perform work outside one's mandate, understaffing, and a non-supportive organizational culture.

Maran et al. (2015) investigated the differences between male and female officers and whether they were affected differently when involved in critical incidents. Tundral

and Behmani (2016) examined the relationship between role indices and life satisfaction in a sample of four hundred female police personnel. The findings indicated the development of role stressors is constantly evolving, and therefore all internal and external factors of the organization should be taken into consideration. The findings clearly showed significantly lower life satisfaction amongst female participants (basic needs are met, and other attainable) were included in the indices studied (Tundral & Behmani, 2016).

A study by Irish et al. (2011) compared the psychological and physiological differences between male and female laypeople's response to automobile accidents. They investigated 356 accident survivors by examining a series of initial and post-trauma reactions of male and female survivors. The study concluded that female survivors had a stronger initial reaction to accident trauma, which determined the extent to which they suffered PTSD. As such, the initial reactions to trauma may provide insight into the contributing factors to VT development. Powell and Tomyn (2011) noted in a life satisfaction study that females were at a higher risk of developing anxiety or depression symptoms when they had a personal history of trauma or a heavy caseload of trauma survivors.

Researchers have examined VT across gender and reported mixed findings. Roach et al. (2018) investigated 421 female LEOs from Australia and established that operational and managerial stressors do not describe key stressors among female police officers in the law enforcement occupation. Results findings also suggested that in addition to operational or organizational stressors, women reported a higher level of

interpersonal stressors, including sexual harassment, gender discrimination, inadequate support from management and colleagues than their male counterparts, where sexual harassment was not a key source of stress. In a systematic literature review conducted by Scheibe et al. (2016), it was established that gender played a significant role in defining the sources of VT and its impacts among LEOs. According to the findings, female law enforcement personnel underscored that they valued emotional support than their male counterparts and focused on social networks in challenging times for comfort. However, the most compelling findings were reported by Spence and Millott (2016), who contrasted the findings published by Soomro and Yanos (2019) and suggested that physical threats, use of force against LEOs, and domestic violence were key sources of VT in male and female officers.

Based on the literature reviewed above, while law enforcement stressors affect males and females differently, they are all negatively affected. Similar findings were reported by Stanley et al. (2016), who established the key source of stress among female officers included discrimination, unfair hiring practices, and inflexible working hours that conflicted with other roles. Summers et al. (2017) asserted that work-life balance is a major source of stress amongst female LEOs.

A study conducted by Thornton and Herndon (2016) established a lack of work schedule flexibility that compromises commitment and motivation. According to the findings, the participants noted that they were less motivated to dedicate their efforts to law enforcement as they felt they had little time to address family issues and other personal commitments away from work. The findings are supported by Turner and

Jenkins (2019), who also reported a failure to have fair recruitment practices, equal promotional opportunities, and flexible working schedules for female officers significantly reduced their level of commitment to service.

The law enforcement culture is another key area of concern for LEOs and their families. According to Urie et al. (2016), LEOs have a stereotypical culture in which LEOs are expected to be resilient in stressful environments. In this view, Van der Meulen et al. (2018) noted that the law enforcement culture makes police officers feel “superior” to others they consider inferior, causing conflict in a family where mutual understanding is key in developing a family. Similar findings were reported by Velazquez (2019), who noted that various behavioral traits such as a lack of sentimentality, authority, dominance, and control negatively influenced family relationships as they superseded a cooperative situation and the ability to integrate each family members’ thoughts and needs.

Researchers have reported mixed findings on the effects of job stress in LEOs on their marriages. For instance, while Violanti et al. (2017) established a 75% divorce rate amongst LEOs, while Turgoose et al. (2017) reported that the divorce rate among LEOs was lower than the national average. Studies have linked inflexible working conditions and traumatically experienced divorce among LEOs, considering that the above factors positively influenced families’ marital status. Therefore, work-related stress amongst LEOs that may be attached to PTSD and other related work stressors are likely to strain relationships among couples resulting in a high divorce rate. In a different study, Violanti et al. (2017) reported that law enforcement stressors impair couples’ communication. For

instance, researchers have established that officers' emotional exhaustion can extend to families where one couple may fail to engage the other actively.

Similar findings were reported by Violanti et al. (2016). They establish that job-related stress within the law enforcement environment hinders the probability of having a successful marriage amongst LEOs considering the extent to which emotional exhaustion may increasingly make it more challenging for couples to interact. Violanti et al. (2018) also reported that different findings in his study sought to investigate the impacts of law enforcement stressors on family bonds. According to the results, the separation of a man from his wife due to law enforcement duties in various areas for an extended period of time have negative impacts on creating strong family bonds which are key for a successful marriage.

Suicide is another negative impact of stressors among LEOs. According to Brady (2017), studies have reported mixed findings of LEOs' suicide rates compared to the public. Studies such as Watson and Andrews (2018) found that more LEOs are likely to die by their own hands than being killed in the line of duty. A study conducted in Detroit established that the suicide rate among police officers increased ten times between 1950 and 1979 and was linked to job stress (Violanti, 1995). In a different study, Wheeler et al. (2018) reported rates of suicide among law enforcement was in older officers as it was linked to alcoholism and social strain in their families. The most important thing to emphasize is law enforcement stressors are causally related to the increased suicide rates amongst LEOs. White et al. (2016) reported past experiences in the line of duty, a

reflection of traumatizing experiences, depression, and PTSD were among the key factors that increased the likelihood of LEOs committing suicide.

Level of Education and Vicarious Traumatization

In order to become a law enforcement officer in most states, candidates must complete 840 hours of police academy training. The training has a dichotomous layout. There is an academic portion, which may or may not be facilitated using Socratic inquiry. The Socratic inquiry is a form of questioning that manipulates the original question causing the responder to create a question that becomes the answer (Makhene, 2019). The assertion of Makhene's (2019) Socratic inquiry fosters critical thinking, which is effective educationally and practically. The second portion involves direct, scenario-based training (Blumberg & Papazoglou, 2019). Practical training usually consists of training in firearms, defensive driving techniques, effective report writing, fingerprinting and processing, how to properly effect a lawful arrest, search and seizure practices, as well as other important topics needed for a career in law enforcement. Upon successful completion, candidates can become certified as LEOs (Blumberg & Papazoglou, 2019).

Although policing has evolved, formal training for police recruits did not occur until 1908 (Scott, 2010). Prior research has produced varying views regarding the benefits of education beyond the police academy on LEOs' performance. Paoline et al. (2015) contributed to the literature by examining the impact of varying levels of education on officers' satisfaction, views on top management, and role orientations. The results recommend making higher education an occupational requirement. Griffin and

Sun (2018) noted higher-educated officers reported lower degrees of work-family conflict and lower levels of stress.

Shernock (2006) conducted a study that examined the effects of college education on patrol officers' views regarding attitudinal attributes identified in police professionalism literature in 177 patrol officers from eleven police departments in three New England States and New York. The study examined the effects of college education on patrol officers' views regarding attitudinal attributes identified in police professionalism literature. Brauns and Brauns (2014) noted 1% of police agencies in the United States mandate that recruits have a degree higher than a high school diploma or its equivalent. The key concern with police training is the void between the curricula candidates receive in police academies and the practical experiences that occur during an officer's interaction with survivors of trauma or daily stressors (Caro, 2011).

Resilience and Law Enforcement

Various disciplines have widely defined psychological resilience. The most significant findings in the literature are that there is no universally used definition. However, common themes identified include an awareness of health, adaptation, or positive functioning in the aftermath of adversity (Southwick, et al., 2014). For the sake of this research study, the definition of the American Psychological Association (2016) will be applied. "Resilience is the process of adapting positively despite adversity, trauma, tragedy, or related stressors" (Southwick et al., 2015). Researchers further note the complexities associated with resilience concepts due to varying degrees across multiple domains of life (Pietrzak & Southwick, 2011). The consensus is to approach

empirical studies from a perspective that impinges on how resilience is being explored. So, resilience is not as straightforward as a concept. Pole et al. (2006) surveyed a retired LEO sample, using variables comparable to the present study. The researchers were interested in a better understanding of resilience after completing a career in law enforcement. The study examined years of education, age, years of service, marital status, and others. The findings indicated marital status, fewer mental illnesses within their families, less exposure to non-duty related trauma, less reliance on distancing, less neurotic personality, and escape -avoidant coping strategies all showed to be significant to resilience. Police departments where officers had little concerns about safety and administrative stressors, less inclination to hide aspects of their work from family and friends were all predictive correlates to resilience (Pole et al., 2006).

In a different study, Burke and Shakespeare-Finch (2011) explored the impact of prior traumatic experience on evaluating traumatizing events experienced within the policing context. The results show that trauma experienced before entering the police force influenced how officers experience trauma while working in policing. It appears that prior trauma can have a positive impact on how stress and trauma are conceptualized, resulting in a greater propensity to report positive outcomes from adverse experiences. Burke and Shakespeare-Finch (2011) suggest a pattern of different officers' resilience capabilities based on whether they had previously experienced trauma. The results provide insight into the effects of preparation and socialization into the police force and suggest that officers have been trained to cope with potentially traumatizing events

effectively. That training has a positive impact on the capacity to cope with work-related demands.

There is a sense of ambiguity in the varied roles of law enforcement officers. LEOs are faced with relentless exposure to stress, trauma and life-threatening incidents, which places them at risk for mental health issues, stress-induced illnesses as well as completed suicides (Paton et al., 2008). Research suggests that law enforcement professionals are more resilient than the general population (Papazoglou et al., 2017). However, recent literature is scarce on the effects of resilience in a police context. The existing literature gap suggests a need for evidence-based studies on resilience as a mediator in a police context.

Summary

The constructivist self-development theory and the resilience theory will support this study. Constructivist self-development theory describes areas of the self that may be negatively transformed by exposure to violence or victimization. Vicarious traumatization, CF, STS, and PBO have each been used interchangeably in the literature. There is currently a deficiency in the literature correlating levels of education, age, gender, and years of service among metropolitan LEOs. The impact that previously mentioned demographics might have on the development of VT is unknown. However, the literature indicates that female LEOs are more susceptible to higher primary and secondary stress levels.

As this chapter has indicated, although the literature is robust with studies on PTSD (Dornbach-Bender et al., 2019; Dorrington et al., 2019; Grodin et al., 2019; van

der Velden et al., 2019) vicarious traumatization is becoming a more recognized construct. With additional empirical research, it is hoped that metropolitan LEOs working with a traumatized population in traumatic circumstances will be better supported working in these situations (MacEachern et al., 2019). Chapter 3 will present the research design and the methodology for this proposal.

Chapter 3: Research Method

The purpose of this quantitative study was to examine whether resilience, gender, age, years of service, and education level impact VT among metropolitan LEOs. In Chapter 3, the research design, approach, setting, sample, data collection procedure, analysis, instrumentation, materials, and limitations are outlined. Also explained in this chapter are the steps that were taken to protect the participants and how dissemination of the findings occurred.

Research Design and Rationale

The dependent variable for this study was VT. The independent variables were age, gender, years of service, and level of education. Resilience was the mediating variable. This study expanded the existing literature on trauma research and police psychology, bringing awareness to those officers who may be at risk for developing symptoms of VT. This is important for a profession that is dependent on having mentally healthy officers who are equipped to oversee critical incidents involving survivors of trauma. I used a descriptive cross-sectional design, which included random sampling and quantitative analysis. I examined whether an increase or decrease in one variable corresponded to an increase or decrease in the other variable (see Creswell, 2013).

Methodology

The cross-sectional design is commonly used in the field of social sciences to determine prevalence. Researchers often use surveys with this design to obtain a random sampling of responses regarding background, experiences, or attitudes (Mann, 2003).

Regardless of the design, there are limitations. Considerations regarding

limitations must be assessed to protect the validity of the study. The cross-sectional design is intended to combat the perceived threats. For instance, a cross-sectional design requires all testing be done at a single point in time, which mitigates the validity threats of maturation, testing, regression to the mean, selection, instrumentation, mortality, and diffusion or imitation of treatment (Hudson, 2005; Trochim & Donnelly, 2008). Due to the testing occurring during a single point in time, the maturation threat is avoided, primarily because the natural maturation process that may occur during a person's lifetime will not affect the outcome of the study. Further, the cross-sectional design does not require pretesting or posttesting, thereby avoiding the threats associated with testing and instrumentation (Trochim & Donnelly, 2008). However, due to the possibilities of the officers having historical events such as personal trauma, history threat may have affected the study outcome (see Trochim & Donnelly, 2008).

Population

The target population included metropolitan LEOs in the Midwest region of the United States. The target population included people working as full-time LEOs of varying ranks. The participants were exposed to traumatized survivors of crime as a routine part of their assigned duties.

Sampling and Sampling Procedures

The sampling strategy that was most appropriate for this study was random sampling. Simple random sampling is a common method of sampling when the researcher is seeking to sample a subset of individuals from a larger set. Each participant is chosen randomly and entirely by chance (Trochim & Donnelly, 2008). The population

being targeted for the current study included metropolitan LEOs within the Midwest region of the United States. I was seeking sworn officers working day-to-day operations in an environment in which they were repeatedly exposed to traumatic details provided by survivors of trauma.

Sample Size Calculation

The analyses to answer the research questions included descriptive statistics, independent sample *t* test, and Pearson's *r*. G*Power was used to calculate the minimum sample size needed to achieve empirical validity when conducting a *t* test and Pearson's *r* analysis (see Fritz & MacKinnon, 2007). Using a medium effect size, an alpha of .05, and a generally accepted power of .80, I determined that the minimum sample size required was 180 participants. A random sample of 240 working officers was used to gather data for this study.

Procedures for Recruitment

Recruitment for this study was limited to two metropolitan areas within the Midwest region of the United States. The targeted areas had a police force of 500 or more LEOs. I contacted the highest-ranking official via email and invited the officers to participate in this voluntary study. I explained the study and asked the appropriate members for the support of their agencies.

Procedures for Participation

The officers who participated in this voluntary study received the invitation from a designated person within their respective agency via their employee email addresses. Prospective participants were presented with the informed consent information via email,

which included an explanation of the study and why it was being conducted. The email also included information regarding dissemination of the results. Participants were advised regarding potential risks associated with participation; participants were also advised that they may withdraw from the study at any time with no adverse consequences. Lastly, anonymity was a high priority; therefore, the process of how the data would be stored, utilized, and destroyed was noted in the informed consent. Participants were given the option to affirm consent by clicking the link to gain access to the survey.

Data Collection

The data for this study were collected online using SurveyMonkey. SurveyMonkey is a confidential, secure, internet-based site that provides a platform for individuals to create and customize their surveys to collect and organize data (SurveyMonkey, 2020). SurveyMonkey (2020) uses a wide range of security measures to protect all survey data. There is 24-hour monitoring as well as mandatory identification entry requirements for anyone using or accessing the company hardware (SurveyMonkey, 2020). SurveyMonkey encrypts all data transmitted from participants and ensures that staff adhere to all security measures and practices. The data were collected and viewed by me. The data were used for purposes of this study only. I created a password that was specific for this study. The password was not shared with a third party. Upon completion of the data collection, the password was securely stored as mandated by Walden University. The estimation for data collection was 4–6 weeks from the time of notification. Upon completion of the surveys, a request was made for

participants to submit the completed information to SurveyMonkey. The required data for this study were obtained within the first 2 weeks. Therefore, a follow-up email was not sent to the ranking officer requesting a second notification for participation. The officers who opted to participate were provided with an informed consent. The informed consent explained the purpose, risks, and benefits of participation. The informed consent further explained that there would be no monetary compensation for participation. Finally, the informed consent addressed anonymity, stating that all information would remain with me. No identifying information was collected from participants.

Instrumentation and Operationalization of Constructs

A demographic questionnaire created by me was presented on the second page of the survey (see Appendix A). Participants were asked questions regarding years of service, age, education level, and gender. The purpose of the demographic questionnaire was to obtain information from the study participants allowing me to describe the sample and to ensure the inclusion criteria for the study were met. The variables listed on the questionnaire was coded as follows: Years of service was categorized as 0–5 years, 6–10 years, 11–15 years, and 16+ years. Age was categorized as 21–25, 26–30, 31–35, 36–40, 41–45, and 46+ years. Gender included both *male* and *female*. The three questionnaires took no longer than 10–15 minutes to complete (see Appendix C).

The two preexisting measurement scales used for this study were the ProQOL 5 (see Stamm, 2010) and the RS (see Wagnild & Young 1993). Resilience was measured using the RS (see Wagnild & Young, 1993), and VT was measured using the ProQOL 5 (see Stamm, 2010). These instruments were chosen to measure resilience and vicarious

traumatization because of their previous applications in similar research (see Andersen & Papazoglou, 2015; Chopko et al., 2013; Griffin & Sun, 2018; Hadfield & Ungar, 2018; Papazoglou et al., 2019; Turgoose et al., 2017; Ungar, 2013). Both instruments showed good to excellent reliability and validity in previous research.

Professional Quality of Life Scale 5

The ProQOL 5 is an instrument commonly used to explore the effects of collaborating with individuals who have experiences with trauma or extreme distress (Perkins & Sprang, 2013; Stamm, 2010; Thompson et al., 2014). The ProQOL 5 was developed by Stamm (2010), and the most recent version is the self-report 30-item instrument. The ProQOL 5 is often used to measure CF, STS, PB, and CS. The ProQOL 5 subscales are mostly used for research on the positive (CS) and negative (CF) effects of working or helping others who have experienced traumatic or extremely stressful events (Stamm, 2010). For the current study, the STS scores were measured. CF, PB, and CS were beyond the scope of this research.

The ProQOL 5 was created to target therapists. However, it is now used with other professionals, particularly nurses, teachers, lawyers, and social service employees such as LEOs (Stamm, 2010). The ProQOL 5 uses a 5-point Likert scale (1 = *Never*, 2 = *Rarely*, 3 = *Sometimes*, 4 = *Often*, 5 = *Very Often*) in which respondents rate agreement with statements such as “I am happy,” “I am preoccupied with more than one person,” “I feel connected to others,” “I jump or am startled by unexpected sounds,” and “I feel trapped by my job as a police officer.” Instructions specify that responses should be indicative of feelings within the past 30 days.

The higher scores on this scale are indicative of elevated levels of CF. The ProQOL 5 also measures PB. PB is different from CF. A high score in this area indicates that one may be at risk for PB. This instrument also measures CS. High scores in this area are indicative of elevated levels of CS, and high scores in STS are indicative of elevated levels of STS. The scores for STS were used for data analysis in the current study. Permission to use the ProQOL 5 was granted via the website. Stamm allowed the instrument to be used at no cost if proper credit was given to the creator, there were no changes made to the instrument, and the instrument was not sold. A copy of the ProQOL 5 can be found in Appendix D.

Validity and Reliability of ProQOL 5

Stamm (2010) reported indicators of discriminant validity, and there is a surplus of publicly available data to support the validity of the ProQOL-5 (Bride et al., 2007; Hemsworth et al., 2018). Overall, the ProQOL 5 has shown good-to-excellent reliability (Stamm, 2010). Stamm (2010) suggested good internal consistency for the subscales, with Cronbach's alpha values of .88 for CS, .75 for PB, and .81 for STS. No single items were added or subtracted from the overall scale property. The ProQOL has good item-to-scale properties (Stamm, 2010). The standard errors for the ProQOL 5 were small, and they were as follows: CF -.22, PB -.21, and STS -.20 (Stamm, 2010). The ProQOL 5 is not a diagnostic tool (Stamm, 2010). The ProQOL 5 is used for screening and research purposes only. The ProQOL 5 provides information but does not yield a diagnosis (Stamm, 2010).

Wagnild and Young Resilience Scale

The RS (see Wagnild & Young 1993) was used to measure participant resilience. The RS was created as a self-report instrument and is written at a Grade 6 reading level (Wagnild & Young, 2011). The Personal Competence subscale, Factor I, relates to “self-reliance, independence, determination, invincibility, mastery, resourcefulness, and perseverance” (Wagnild, 2011, p.23). Factor II, the Acceptance of Self and Life subscale, relates to adaptability, balance, flexibility, and balanced perspective of life (Wagnild, 2011). Wagnild granted me permission to use this measure via email, contingent on purchasing the licensing agreement for a student fee of \$75.00. Wagnild also requested a copy of the results from this study. The RS has been considered a commonly used instrument used with various populations (Wagnild & Young, 1993).

Validity and Reliability of RS

According to Wagnild and Young (1993), the Cronbach’s alpha ranged from .84 to .94, which confirmed its internal consistency reliability. Wagnild and Young (1993) were able to establish construct and convergent validity by comparing the RS with another well-vetted measure, the Health Promoting Lifestyle Profile (Walker et al., 2003). The two measures had highly comparable constructs and therefore were legitimate measures for establishing validity for the RS scale. To establish discriminant validity, Wagnild and Young vetted the RS against four known groups to determine whether resulting scores would stand predicted outcomes. The directional hypothesis related to verifying different constructs relatable to the RS were supported, thereby establishing discriminant validity for the RS (Wagnild & Young, 1993; Wagnild, 2011). Twelve

studies supported the internal consistency and the construct of the instrument. The instrument's overall reliability and validity were supported (Wagnild, 2011).

Data Analysis

Data were analyzed using Statistical Package for the Social Sciences 25. The data were screened for missing cases and the presence of outliers. Outliers were screened using standardized values. ProQOL 5 and RS scores with standardized values greater than 3.00 or less than -3.00 should be considered outliers and removed from the data (Tabachnick & Fidell, 2013). Statistical analysis was run only on completed data. Cronbach's alpha reliability analysis was conducted to measure the internal consistency of the ProQOL 5 and the RS. The Cronbach's alpha coefficients were analyzed per the guidelines set forth by George and Mallery (2016), whereby coefficients of .7 or higher indicate acceptable reliability.

Research Questions and Hypotheses

Research Question 1

RQ1: Does VT as measured by the Professional Quality of Life Scale vary based on (a) gender, (b) years of service in law enforcement, (c) age at the time of the study, and (d) levels of education?

H_{01} : VT as measured by the Professional Quality of Life Scale does not vary based on (a) gender (b) years of service in law enforcement, (c) age at the time of the study, and (d) levels of education.

H_{a1}: VT as measured by the Professional Quality of Life Scale varies based on (a) gender, (b) years of service in law enforcement, (c) age at the time of the study, and (d) levels of education.

To address research question one, a multiple linear regression analysis was conducted to examine for differences in VT by gender, years of service, age, and level of education. An ANOVA was appropriate for testing for differences in a dependent variable between a series of factors (Tabachnick & Fidell, 2013). The dependent variable corresponded to VT. The independent grouping variables are gender, years of service, age, and level of education. Prior to analysis, the assumption of normality and homogeneity of variance was assessed. Normality refers to the symmetrical; bell shaped distribution of data points and was assessed using a Kolmogorov-Smirnov (KS) test. Homogeneity of variance assumes equal error variances and was assessed using Levene's test. If the ANOVA results are significant at the .05 levels, post-hoc analyses was conducted to further examine for differences within the groups of the independent variables (Tabachnick & Fidell, 2013).

Research Question 2

RQ2: Does the level of resilience mediate the impact of gender, years of service, age, and education on VT?

H_{o2}: The level of resilience, will not mediate VT scores on the ProQOL 5 and levels of resilience as measured by the Resilience Scale. There will be no differences in VT and resilience based on (a) gender and (b) years of service in law enforcement, (c) age at the time of the study, and (d) level of education.

H_{a2}: The level of resilience, will mediate VT scores on the ProQOL 5 and levels of resilience as measured by the Resilience Scale. There will be a difference between VT and resilience based on (a) gender and (b) years of service in law enforcement, (c) age at the time of stud, and (d) level of education.

To assess research question two, a multiple linear regression analysis was conducted to determine whether level of resilience would mediate the relationship between (a) gender (b) years of service in law enforcement (c) age at the time of study (d) level of education and VT. The independent variables were gender, years of service in law enforcement, age at the time of the study, and level of education.

The continuous dependent variable was VT. The mediator variable was level of resilience. As established by Baron and Kenny, three regression models were conducted (Baron & Kenny, 1986). The two regression models and ANOVA consisted of (a) independent variables (gender, years of service, age, level of education) predicting the dependent variable (VT) and (b) independent variables (gender, years of service, age, level of education) and mediator (resilience) predicting the dependent variable (VT).

Four conditions must be met to support mediation:

1. A significant relationship of the independent variables (gender, years of service, age, level of education) to the dependent variable (VT) is required in regression equation one.
2. A significant relationship of the independent variables (gender, years of service, age, level of education) to the hypothesized mediating variable (resilience) is required in regression equation two.

3. The mediating variable (resilience) must be significantly related to the dependent variable (VT), while in the presence of the independent variables (gender, years of service, age, level of education).
4. The independent variables (gender, years of service, age, level of education) must have lower predictive strength to the dependent variable (VT), while in the presence of the mediator (resilience).

Threats to Validity

The primary threat to validity of this study was the statistical regression. The threat could have been caused by the basic assumption of selecting participants with the best scores for analysis. The multiple linear regression analysis and ANOVA were potential threats to interval validity of the study results because it failed to capture the true relationship between variables. Another threat to validity in this study was the sample selection criteria whereby bias in selecting participants may not have reflected the target population.

Ethical Considerations

This study used human participants; therefore, it was necessary to ensure their privacy and security. To do so, the research was conducted in an ethical manner. This researcher completed the National Institute of Health's "Protecting Human Research Participants" course.

An informed consent document (Appendix B) was created for the participants to read and sign prior to completing the surveys. Participants were given the option of discontinuing the survey at any point they felt uncomfortable (American Psychological

Association, 2016). To maintain anonymity, no identifying information such as, address, names, dates of birth, or locations was obtained from the participants of the study. The following codes were used to identify the participants. Protection for confidential data was upheld in this study. In particular, electronic data was protected using a password and backed up on an external storage device such as a flash drive. There were no hard copies stored. Therefore, it prevented third parties from accessing the information and thus breaching participants' confidentiality and privacy. All data will be destroyed after five years upon completion of the study. Data stored in electronic form will be deleted from personal computers as well as external storage devices.

Summary

The purpose of this quantitative study was to explore factors that contributed to the development of VT among metropolitan law enforcement officers. The IV were gender, age, years of service, and education. VT was the DV. This study utilized a cross-sectional research design, convenience sampling and quantitative data analysis. Lastly, full ethical considerations for participants were discussed in this chapter.

Chapter 4: Results

The purpose of this quantitative study was to examine whether gender, age, years of service, and education would influence levels of VT among metropolitan LEOs working in the Midwest region of the United States. Further, I investigated whether resilience could mitigate the negative impact of VT. In this chapter, the data collection process and the results of the data analyses are presented. The descriptive findings, which included frequencies and percentages, are used to examine the nominal-level variables. Means and standard deviations are used to examine the continuous-level data. To answer the research questions, I used one of the most common statistical tools for hypothesis testing (ANOVA) along with mediation analyses. Statistical significance was evaluated at the generally accepted level, $\alpha = .05$.

Data Collection

Data collection occurred between October 4, 2021, and November 8, 2021, utilizing the online platform Survey Monkey (see SurveyMonkey, 2020). The invitation to participate was extended to any officer who met the following criteria: a full-time officer from a participating agency located in the Midwest region of the United States, and exposure to traumatized survivors of crime as a routine part of their assigned duties. The minimum sample size was 180 participants. A total of 297 participants signed the informed consent. A total of 52 participants failed to respond to all questionnaire items and were subsequently eliminated. Potential outliers were examined using standardized values on the VT and resilience scales. One participant had a high VT score, and four had

low resilience scores. After removal of these outlying cases, the final sample for this study consisted of 240 participants.

Descriptive Findings

Frequencies and percentages of the demographics are presented in Table 1. The sample consisted of 193 men (80.4%), 46 women (19.2%), and one participant who did not identify gender (0.4%). Most of the sample consisted of participants at least 36 years of age ($n = 192$, 80.0%). The level of education for participants consisted of academy ($n = 80$, 33.3%), associate's degree ($n = 49$, 20.4%), bachelor's degree ($n = 91$, 37.9%), and master's degree ($n = 20$, 8.3%).

Table 1*Participant Sociodemographics*

Variable	Category	Number	Percentage
Gender	Male	193	80.4
	Female	46	19.2
	Other	1	0.4
Age	21–25	2	0.8
	26–30	21	8.8
	31–35	25	10.4
	36+	192	80.0
	Level of education	Academy only	80
	Associate's degree	49	20.4
	Bachelor's degree	91	37.9
	Master's degree	20	8.3
Job title	Patrol officer	112	46.7
	Sergeant	48	20.0
	Detective	54	22.5
	Other	26	10.8
Years of consecutive police service	0–5	30	12.5
	6–10	27	11.3
	11–15	47	19.6
	16+	136	56.7
Level of workplace stress	Low	24	10.0
	Medium	111	46.3
	High	105	43.8

Note. Due to rounding errors, percentages may not equal 100%.

Composite scores were developed for VT and resilience scores through a sum of the respective items composing each scale. VT scores ranged from 10.00 to 46.00, with $M = 24.39$ and $SD = 7.51$. Resilience scores ranged from 82.00 to 172.00, with $M = 140.10$ and $SD = 16.32$. Reliability for the scales was assessed, and both VT and resilience met the acceptable threshold for internal consistency ($\alpha \geq .70$). Descriptive statistics for the variables of interest are presented in Table 2.

Table 2*Descriptive Statistics for VT and Resilience*

Variable	<i>n</i>	Min	Max	<i>M</i>	<i>SD</i>	Number of items	α
VT	240	10.00	46.00	24.39	7.51	10	.87
Resilience	240	82.00	172.00	140.10	16.32	25	.88

Research Question 1

RQ1: Does VT as measured by the Professional Quality of Life Scale vary based on (a) gender, (b) years of service in law enforcement, (c) age at the time of the study, and (d) levels of education?

H_{01} : VT as measured by the Professional Quality of Life Scale does not vary based on (a) gender (b) years of service in law enforcement, (c) age at the time of the study, and (d) levels of education.

H_{a1} : VT as measured by the Professional Quality of Life Scale varies based on (a) gender, (b) years of service in law enforcement, (c) age at the time of the study, and (d) levels of education.

To answer RQ1, I conducted an ANOVA to analyze potential differences in VT by gender, years of service in law enforcement, age at the time of the study, and level of education. Prior to running inferential analyses, I verified the normality and homogeneity of variance assumptions of ANOVA. A Kolmogorov-Smirnov test was used to compare the sample data to a bell-shaped distribution (see Howell, 2013). The findings of the Kolmogorov-Smirnov test were not significant for VT ($p < .001$), indicating that the assumption of normality was not met for VT scores. Howell (2013) indicated that

violations of normality are not problematic when the sample size exceeds 50 cases.

Levene's test was used to assess for differences in the variance between the groups (see Howell, 2013). The findings of the Levene's test were not significant for VT ($p = .926$), indicating that the assumption for homogeneity of variance was supported.

Gender

The overall findings of the ANOVA were not statistically significant, $F(1, 228) = 0.02$, $p = .901$, indicating that there were no significant differences in VT by gender.

Years of Service in Law Enforcement

The overall findings of the ANOVA were not statistically significant, $F(3, 228) = 1.00$, $p = .396$, indicating that there were no significant differences in VT by years of service in law enforcement.

Age

The overall findings of the ANOVA were not statistically significant, $F(3, 228) = 0.18$, $p = .913$, indicating that there were significant differences in VT by age.

Level of Education

The overall findings of the ANOVA were not statistically significant, $F(3, 228) = 0.26$, $p = .854$, indicating that there were no significant differences in VT by level of education. The null hypothesis for Research Question 1 was not rejected. Table 3 presents the findings of the ANOVA. Table 4 presents the descriptive statistics for VT by the groups.

Table 3

Analysis of Variance Table for VT by Gender, Years of Service in Law, Age, and Level of Education

Variable	<i>F</i>	<i>p</i>	η_p^2
Gender	0.02	.901	0.00
Years of service in law enforcement	1.00	.396	0.01
Age	0.18	.913	0.00
Level of education	0.26	.854	0.00

Table 4

Descriptive Statistics for VT by Gender, Years of Service in Law Enforcement, Age, and Level of Education

Variable	Category	<i>n</i>	<i>M</i>	<i>SD</i>
Gender	Male	193	24.35	7.43
	Female	46	24.72	7.92
Years of service in law enforcement	0–5	30	25.43	6.76
	6–10	27	24.96	6.89
	11–15	47	25.60	8.33
	16+	136	23.63	7.47
Age	21–25	2	27.00	15.56
	26–30	21	24.81	6.13
	31–35	25	24.80	7.23
	36+	192	24.27	7.66
Level of education	Academy only	80	24.38	7.79
	Associate's degree	49	23.59	7.65
	Bachelor's degree	91	24.65	7.39
	Master's degree	20	25.25	6.93

Research Question 2

RQ2: Does the level of resilience mediate the impact of gender, years of service, age, and education on VT?

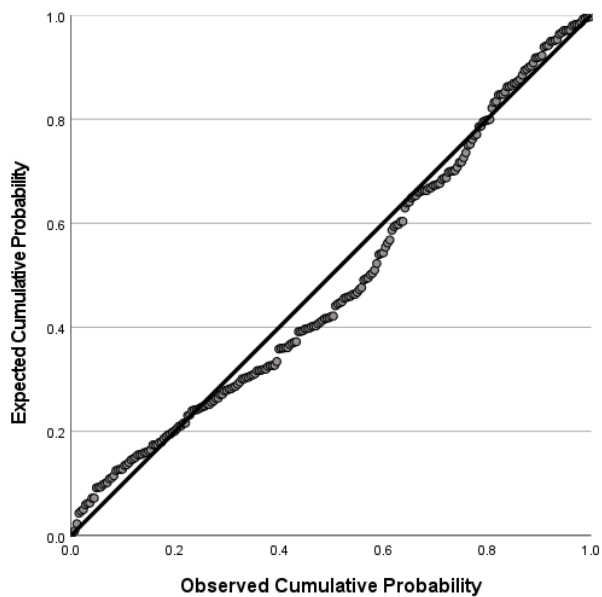
H_02 : The level of resilience does not mediate VT scores on the ProQOL 5, and levels of resilience as measured by the Resilience Scale. There are no differences in VT and resilience based on (a) gender, (b) years of service in law enforcement, (c) age at the time of the study, and (d) level of education.

H_a2 : The level of resilience mediates VT scores on the ProQOL 5, and levels of resilience as measured by the Resilience Scale. There is a difference between VT and resilience based on (a) gender, (b) years of service in law enforcement, (c) age at the time of study, and (d) level of education.

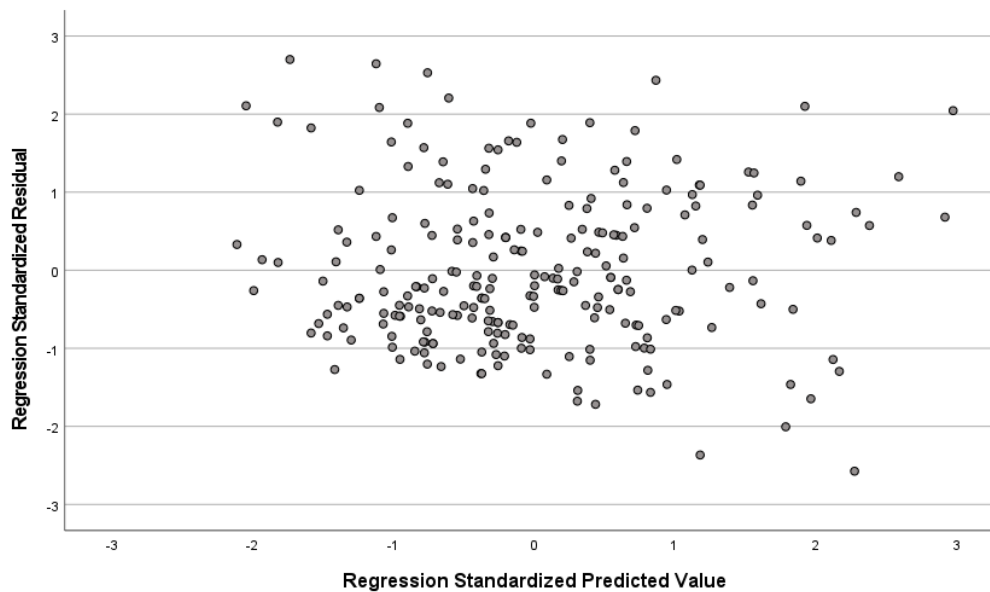
To answer RQ2, I conducted a mediation analysis to assess whether resilience mediates the impact of gender, years of service, age, and education on VT. As established by Baron and Kenny (1986), three regression models were conducted: (a) independent variables (gender, years of service, age, level of education) predicting the dependent variable (VT), (b) independent variables (gender, years of service, age, level of education) predicting the mediator (resilience), and (c) independent variables (gender, years of service, age, level of education) and mediator (resilience) predicting the dependent variable (VT). The following four conditions were needed to support mediation:

1. In Regression Equation 1, there must be a significant relationship of the independent variables (gender, years of service, age, level of education) to the dependent variable (VT).
2. In Regression Equation 2, there must be a significant relationship of the independent variables (gender, years of service, age, level of education) to the hypothesized mediating variable (resilience).
3. In Regression Equation 3, the mediating variable (resilience) must be significantly related to the dependent variable (VT) while in the presence of the independent variables (gender, years of service, age, level of education).
4. In Regression Equation 3, the independent variables (gender, years of service, age, level of education) must have lower predictive strength to the dependent variable (VT) while in the presence of the mediator (resilience).

Before analysis, the assumptions of normality, homoscedasticity, and the absence of multicollinearity were assessed. Normality was assessed with a normal P-P scatterplot (see Figure 1). The data closely followed the normality trend line, indicating that the assumption of normality was supported.

Figure 1*Normal P-P Plot*

Homoscedasticity was assessed with a residuals scatterplot (see Figure 2). There was not a recurring trend in the scatterplot, indicating that the assumption for homoscedasticity was supported.

Figure 2*Residuals Scatterplot for the Regression Model*

The absence of multicollinearity was verified with variance inflation factors (VIFs). Stevens (2009) indicated that VIFs below 10 indicate a low association among the predictors. The assumption for the absence of multicollinearity was supported with all the VIFs being lower than 10. Table 5 presents the findings of the VIFs.

Table 5*Variance Inflation Factors for Predictors*

Predictor	VIF
Gender	1.04
Years of service	2.44
Age	2.38
Level of education	1.06
Resilience	1.01

First, the regression with gender, years of service, age, and level of education predicting VT. As presented in the findings for research question one, the results of the regression were not statistically significant, $F(4, 234) = 0.67, p = .615, R^2 = .011$. This suggests that gender, years of service, age, and level of education do not predict VT. The first item for mediation was not met.

Second, the regression with gender, years of service, age, and level of education predicting resilience was conducted. As presented in the findings for research question two, the results of the regression were not statistically significant, $F(4, 234) = 0.63, p = .642$, and $R^2 = .011$. This suggests that gender, years of service, age, and level of education do not predict resilience. The second item for mediation was not met.

Third, the regression with gender, years of service, age, level of education, and resilience predicting VT was conducted. As presented in the findings for research question three, the results of the regression were statistically significant, $F(5, 238) = 4.73, p < .001, R^2 = 0.092$. Resilience ($B = -0.13, t = -4.56, p < .001$), indicating that with every one-unit increase in resilience, VT scores decreased by 0.13 units. The third item for mediation was met. Due to the demographic characteristics being non-significant in regressions one and three, item four for the mediation was not met. Therefore, there was no evidence that resilience mediates the strength of the relationship between gender, years of service, age, level of education, and VT. The null hypothesis for research question two (H2o) was not rejected. Results of the regressions are presented in Table 6.

Table 6

Regression Results Testing Resilience as Mediator of Relationship Between Gender, Years of Service, Age, Level of Education, and VT

Dependent	Independent	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>
Regression 1: VT	Gender	0.11	1.26	.01	0.09	.931
	Years of service	-1.05	.071	-.15	-1.47	.142
	Age	0.89	1.14	.08	0.78	.434
	Level of education	0.06	0.50	.01	0.11	.911
Regression 2: Resilience	Gender	3.63	2.73	.09	1.33	.185
	Years of service	-0.46	1.55	-.03	-0.29	.769
	Age	0.63	2.47	.03	.026	.799
	Level of education	0.51	1.09	.03	0.47	.639
Regression 3: VT	Gender	0.59	1.21	.03	0.48	.629
	Years of service	-1.11	0.69	-.16	-1.62	.107
	Age	0.97	1.09	.09	0.89	.373
	Level of education	0.12	0.48	.02	0.26	.798
	Resilience	-0.13	0.03	-.29	-4.56	<.001

Note. First regression: $F(4, 234) = 0.67, p = .615, R^2 = .011$.

Second regression: $F(4, 234) = 0.63, p = .642, R^2 = 0.011$.

Third regression: $F(5, 233) = 4.73, p < .001, R^2 = 0.092$.

Summary

The purpose of this quantitative study was to examine whether gender, age, years of service, and education impact levels of vicarious traumatization among metropolitan law enforcement officers from a Midwest region of the United States. Further, this study investigated whether resilience mitigates the negative impact of VT. In this chapter, the findings of the data analyses were presented. There were no significant differences in VT by gender, years of service, age, or level of education. The null hypothesis for research question one (H1o) was not rejected. In addition, there was no evidence that resilience mitigates the strength of the relationship between gender, years of service, age, level of education, and VT. The null hypothesis for research question two (H2o) was not rejected. In the next chapter, the findings of the data analyses will continue to be explored.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this quantitative study was to examine whether gender, age, years of service, and education level impacted levels of VT among metropolitan LEOs. Metropolitan LEOs were selected for this study due to their work's unpredictable and highly challenging nature. Officers whose daily interaction with victims of trauma or perpetrator trauma are faced with tremendous pressure. Life-and-death decisions must be made within seconds, leaving limited time to recover to a place of healthy resilience (de Terte et al., 2014).

A random sample of 240 working law officers participated in this study. The CSDT and the resilience theory were used as the framework to address the research questions and hypotheses. The ProQOL was used to assess the independent variables (gender, years of service in law enforcement, age at the time of the study, and education level) on the dependent variable (VT). The RS was used to assess whether resilience mediates the impact of VT based on gender, years of service, age, and level of education.

This study was intended to examine factors that may impact VT on metropolitan LEOs, as well as how resilience might function as a protective factor. An interpretation of the findings in the context of previous studies is presented. Finally, the limitations of the study and recommendations for future research involving VT within law enforcement are discussed.

Interpretation of the Findings

The interpretations of the findings are based on two research questions. The first research question focused on whether VT was reported differently based on gender, years of service in law enforcement, age, and level of education.

Research Question 1

Does VT as measured by the Professional Quality of Life Scale vary based on (a) gender, (b) years of service in law enforcement, (c) age at the time of the study, and (d) levels of education? According to the CSDT, individuals form ways of thinking based on personal realities and interpretations, including their perceptions and experiences (McCann & Pearlman, 1992; Williams et al., 2012). As discussed in Chapter 2, cognitive development theory addresses how an individual acquires, constructs, and uses information. As a result, the impact of trauma is understood differently based on individual experiences. Trauma awareness increases over the lifespan following exposure to added information (Ledesma, 2014). Therefore, I expected that VT as measured by the ProQOL would vary based on (a) gender, (b) years of service in law enforcement, (c) age at the time of the study, and (d) levels of education.

This study found no statistical relationship between VT and gender, contrary to theoretical expectations. These findings contradicted existing studies. For instance, MacEachern et al. (2019) found that 39% of women and 28% of men experienced work-related stress, a known VT component. Furthermore, MacEachern et al. noted that female law enforcement officers were mainly affected due to language harassment, traditional bias, and being treated as if they did not belong in the same capacity as their male

counterparts. Although various sources of stress affect LEOs regardless of gender, research has shown that female officers have higher statistically significant psychological and physical distress (Purba & Demou, 2019).

The existing body of literature regarding the relationship between years of service and VT is sparse. However, Michalopoulos and Aparicio (2012) found that social workers' years of experience contributed to VT. Over time, these individuals' interactions with clients increased the risks of developing VT, though the risk was mediated by support factors such as social support and experience. Jaffe et al. (2003) found that judges experienced a similar phenomenon: the more years served on the bench, the higher the levels of VT. Cosden et al. (2016) found comparable results in research examining VT among substance abuse treatment providers. The more years these individuals spent working with substance abusers, the more likely they would experience VT. Over a decade, the general body of literature indicated the more years a person served in various capacities working with the traumatized, the more likely the provider was to experience VT. I anticipated the findings of the current study would be similar to these studies. However, these findings contradicted existing studies and indicated no significant differences in VT by years of service in law enforcement.

When LEOs are recruited during their early years of service, they are usually excited, curious, enthusiastic, and less affected by the traumatic experiences of others (MacEachern et al., 2019). There is a positive correlation between age and the length of stay in police services; officers who have stayed in service for a more extended time are likely to be exposed to more work-related trauma for a longer time and are more likely to

experience more stress (Lumsden & Black, 2018). According to previous studies, young officers experience less stress than veteran officers who have served for a more extended period (Velazquez & Hernandez, 2019). The relationship between age and depression may point to an adverse effect of trauma exposure at the workplace (Leppma et al., 2018). Age contributes to increased depression in society (Lijtmaer, 2017), and a combination of increasing age and exposure to work-related trauma leads to more distress on the officers. The current study revealed no statistical differences between VT and age. Only two participants in the current study (0.8%) were between the ages of 21 and 25. Therefore, interpretations should be made with caution.

Prior research produced contrasting views regarding the benefits of education beyond the LEOs' academy on LEOs' job performance or VT. Paoline et al. (2015) suggested making higher education an occupational requirement. Griffin and Sun (2018) noted that higher educated officers reported lower degrees of work-family conflict and lower stress levels. The current study found no significant differences in VT by the level of education, with 160 participants reporting higher levels of education. There were also no significant differences in the other variables in this study (gender, age, and years of service). Findings for the second research question indicated that gender, years of service, age, and level of education did not predict resilience.

Research Question 2

Does the level of resilience mediate the impact of gender, years of service, age, and education on VT? The resilience theory explains how psychological characteristics influence an individual's capacity to withstand traumatic experiences in the workplace.

The premise of this theory suggests that an individual's ability to develop resilience is dependent on the person's ability to restructure cognitive patterns or perceptions of an adverse experience (McCann & Pearlman, 1992). Ledesma (2014) established that LEOs' repeated exposure to trauma and stress negatively impacted their commitment and job performance. Experiences of emotional distress can be reduced by ensuring that appropriate coping strategies are identified and in place to support officers with compounding stressors (Lockey et al., 2022). Resilience theory further explains how psychological characteristics influence an individual's capacity to withstand traumatic experiences in the workplace. Researchers proposed that an individual responds differently when confronted with a challenge. Individuals will survive the challenge, recover from the challenge, or thrive as a result of the challenge (Padyab et al., 2016). A person will continue to function, though it may not be fully (Ledesma, 2014). I expected that the level of resilience would mediate VT scores on the ProQOL 5, and levels of resilience as measured by the Resilience Scale. I expected there would be a difference between VT and resilience based on (a) gender, (b) years of service in law enforcement, (c) age at the time of study, and (d) level of education. There was no evidence that resilience mediated the strength of the relationship between gender, years of service, age, level of education, and VT. However, it might be worth noting, according to the findings of this study, resilience alone is a significant predictor of VT.

The third regression with gender, years of service, age, level of education, and resilience predicting VT was conducted. Findings for third regression were statistically significant, $F(5, 238) = 4.73, p < .001, R^2 = 0.092$. Resilience ($B = -0.13, t = -4.56, p <$

.001) indicated that with every one-unit increase in resilience, VT scores decreased by 0.13 units. The third item for mediation was not met. The null hypothesis for Research Question 2 was not rejected.

K. J. Burke and Shakespeare-Finch (2011) suggested a pattern of different officers' resilience capabilities based on whether they had previously experienced trauma. The results provided insight into the effects of training and socialization on the LEOs' individual agencies and suggested that officers had been trained to effectively cope with difficult events. The results of the current study indicated that gender, years of service, age, and level of education did not predict resilience.

Limitations of the Study

I examined the relationships between gender, years of service, age, level of education, and VT. However, the association between variables did not allow conclusions to be drawn about their causal relationships. Moreover, the sample for this study comprised predominantly older, educated, male law enforcement officers. Therefore, caution must be exercised when extending any of this study's conclusions to officers from other groups (e.g., gender, racial, ethnic, sexual minority groups) because experiences from civilians and peers may render them more susceptible to VT.

Another potential limitation was the presence of social desirability bias. The LEOs sample in this study scored higher than the normative sample, which indicates the participants were more inclined to present themselves in a socially desirable manner. As a result, there is a possibility that the sample may have underreported the impact of VT or overreported their psychological abilities in the psychological flexibility measure. The

social desirability finding is consistent with Lewis et al. (2013), who studied STS in state probation officers. There are factors specific to law enforcement that may relate to increased social desirability. First, LEOs tend to avoid showing weakness, which often includes psychological challenges (D. Spence et al., 2019). D. Spence et al. (2019) described a stigma and distrust of law enforcement mental health and wellness services in a report to Congress. This mindset could have impacted the way officers answered questions in the current study because there was a psychological component. A final limitation of this study was the timing of the study. The two instruments used for this study required the participants to report on their experiences within a 30-day period. On a given day, a metropolitan LEO may have to deal with multiple incidents of trauma or zero incidents of trauma. Therefore, the self-reported responses may not reflect an officer's overall or compounding experiences.

Recommendations

Participants for this study were from the Midwest region of the United States. Future researchers could replicate the current study in LEOs' organizations in other areas of North America, Europe, and other democratic countries given that the role of LEOs in totalitarian governments violate human rights, and any attempt to study LEOs VT in countries controlled by totalitarian governments would defeat the purpose of developing research to help those who serve. The development of cross-cultural research that examines LEOs' VT in democratic countries may allow future researchers to explore LEOs' CF in the context of LEOs' national and cultural circumstances, among other factors. To this end, future researchers may replicate the current study using officers from

other groups to explore whether there are differences in how they experience VT and to examine whether race, ethnicity, sexuality, or religion plays a role in contributing to LEOs' VT. Similarly, officers who serve in low socioeconomic status communities may experience different VT compared to officers who serve in high socioeconomic status communities. Future researchers may explore important research questions regarding VT and LEOs from different perspectives.

Moreover, future researchers may investigate LEOs and VT considering officers' specific positions. For instance, future researchers may attempt to answer the question of the difference between officers who serve in a child exploitation unit compared to officers who serve in a crowd control unit. Different LEO positions may be associated with different experiences of VT. For instance, a SWAT team officer may experience different VT symptoms compared to an officer who serves in a child pornography unit.

Previously, researchers examined etiological approaches to PTSD based on a proposed stress-diathesis model (McKeever & Huff, 2003). To this end, researchers attempted to consolidate medical and psychological research findings, exploring pathways that shed light on how PTSD is developed from biological, psychological, and environmental perspectives. Like previous research, the current study's findings illustrate pathways to VT by considering levels of negative personality traits and moral injury (self- and others-focused) of LEOs. Based on the stress-diathesis model (Ungvarsky, 2020), elevated levels of negative personality traits (diathesis) may interact with self-focused morally injurious incidents (situational traumatic stressors). Consequently, officers' exposure to situational traumatic incidents (self-focused morally injurious

incidents) may activate the diatheses (negative personality traits) that may then instigate the development of VT. A study that aims to investigate an etiological approach to LEOs traumatization based on the stress-diathesis may be compelling. Other factors (e.g., years of service, positions served) may also be considered in the exploration/development of an etiological model of LEOs and VT.

Implications

This study contributes data on the factors impacting VT among law enforcement. Aligning with STS research by Lewis et al. (2013) and Rhineberger-Dunn et al. (2016), this study showed that length of service was not related to levels of VT. In partnership with LEOs' trainers and supervisors, clinicians can address moral dilemmas that officers may have experienced (or may potentially experience) during trauma-induced critical incidents. This approach may help prepare officers to address these dilemmas experienced in the line of duty. This approach may also allow clinicians to explore any negative impacts on health and well-being resulting from traumatizing material or incidents experienced in the line of duty. Research has indicated that when traumatic and dangerous situations are addressed and processed appropriately, high-ranking officers, frontline officers, and caregiving professionals are less likely to experience the aftermath of VT and are more likely to feel better equipped to navigate incidents confidently. This recommendation is supported by prior clinical work with traumatized veterans and soldiers, which strongly suggests the effectiveness of addressing, exploring, and treating VT as part of clinical trauma work. Clinicians who work with traumatized LEOs should also consider VT as part of their treatment plan.

Additionally, this research raises questions regarding organizational resilience measures and their efficacy, specific coping mechanisms, and possible inherent resilience in those who have chosen a law enforcement career. The results might support successful measures to promote good mental health and well-being. However, the comparison to community norms still shows a higher level of distress in the sample of metropolitan law enforcement officers. The potential links between gender, years of service, age, level of education, and VT remain unclear and raise questions relating to the use of constructivist self-development theory as a construct. Awareness of the moderate levels of distress, greater than community norms, should encourage further studies and support, particularly with literature revealing comparable levels of distress (Greinacher et al., 2019; Turgoose et al., 2017). Addressing LEOs' well-being has recently been enhanced through the Blue Light frameworks (Coleman et al., 2018). To date, the impact of trauma has prioritized the needs of those officers more obviously exposed to trauma (e.g., through direct violence to themselves, traffic fatalities, or delivering serious or sad news to victims' families). The data, revealing elevated distress and its correlates, suggests the emotional needs of those occupying fewer distressing roles should be further assessed, and supportive interventions developed.

Attention to federal law enforcement officers' mental and emotional well-being has gained traction over the past few years. In 2017, Congress passed the Law Enforcement Mental Health Act, which ordered federal agencies to evaluate crisis resources available to law enforcement, research mental health programs' efficiency privacy considerations, and expand peer support networks (Spence et al., 2019). The

United States Department of Justice (2020) has recently released a blueprint on evaluating and creating an action plan for a vicarious-trauma informed organization. Additionally, the United States Probation system has implemented a Wellness Steering Committee, which disseminates information and provides resources for voluntary training. This study provides information on the current state of VT among LEOs and shines a light on psychological flexibility as a critical factor specific to the well-being of LEOs. District leaders can use the information derived from this study in multiple ways.

The information outlined in the literature review and the results of this study can be used to create awareness regarding the issue of VT among LEOs. Leaders are influential in making decisions that impact the mental well-being of their officers, and Merhav et al. (2018) suggest that leaders have a moral responsibility to act and try to prevent VT. They must recognize the occupational challenges and signs of VT exposure throughout the agency (USDOJ, 2020). Beyond awareness, leaders must nurture a culture where concerns such as VT are normalized and discussed openly. Officers may not be aware of their emotional needs or may not reach out for help due to the stigma; therefore, leadership should initiate the conversations and take steps to check in with officers, specifically those collaborating directly with victims of traumatizing incidents. Support for officers can take multiple forms; for example, leadership can invest in training, modify policies and procedures to mandate wellness initiatives, and build a culture of connection through routine check-ins (Greenwood & Krol, 2020).

Conclusion

LEOs are exposed to indirect traumatic stress regularly. They are open to hearing about traumatic incidents, witnessing dysfunctional or abusive relationships, and collaborating with victims and offenders. Despite not being the direct recipient of the trauma, hearing or reading about traumatic incidents can alter how individuals view the world (Lee et al., 2016; Lewis et al., 2013). Law enforcement has a growing initiative to address officer wellness beyond physical health and safety (Spence et al., 2019). This study sought to contribute to these efforts by examining whether gender, age, years of service, and education impact levels of vicarious traumatization among metropolitan law enforcement officers from a Midwest region of the United States. Further, this study aimed to investigate whether resilience can mitigate the negative impact of VT.

The study found no evidence that resilience mediates the strength of the relationship between gender, years of service, age, level of education, and VT. This study also showed that gender, years of service, age, and level of education do not predict resilience. Further, gender, years of service, age, and level of education did not predict VT. The role of resilience as a mediating factor was not evidenced, and more research is required to understand factors impacting strategies to counter vicarious traumatization among metropolitan law enforcement officers in a Midwest region of the United States. Nonetheless, findings suggest that other approaches should be in place to support LEOs, which might help enhance or maintain resilience and sustain officers in their roles of protecting and serving.

References

- Abdollahi, M. K. (2002). Understanding police stress research. *Journal of Forensic Psychology Practice, 2*(2), 1–24.
- Allison, P., Mnatsakanova, A., McCanlies, E., Fekedulegn, D., Hartley, T. A., Andrew, M. E., & Violanti, J. M. (2019). Police stress and depressive symptoms: Role of coping and hardiness. *Policing: An International Journal, 43*(2), 247–261. <https://doi.org/10.1108/pijpsm-04-2019-0055>
- American Psychiatric Association. (2013). American psychiatric association.
- American Psychological Association. (2016). Revision of Ethical Standard 3.04 of the “Ethical Principles of Psychologists and Code of Conduct” (2002, as amended 2010). *American Psychologist, 71*(9), 900.
- Andersen, J. P., & Papazoglou, K. (2015). Compassion fatigue and compassion satisfaction among police officers: An understudied topic. *International Journal of Emergency Mental Health and Human Resilience, 17*(3), 661–663.
- Andersen, J. P., Papazoglou, K., & Collins, P. (2018). Association of authoritarianism, compassion fatigue, and compassion satisfaction among police officers in North America: An exploration. *International Journal of Criminal Justice Sciences, 13*(2). <https://doi/110.5281/zenodo.2657663>
- Andersen, J., Wade, M., Possemato, K., & Ouimette, P. (2010). Association between posttraumatic stress disorder and primary care provider-diagnosed disease.
- Antrobus, E., Bradford, B., Murphy, K., & Sargeant, E. (2015). Community norms,

procedural justice, and the public's perceptions of police legitimacy.

Journal of Contemporary Criminal Justice, 3(2), 151–170.

<https://doi:10.1177/1043986214568840>

Atkins, S., & Hale, B. (2018). *Women and the law*. Humanities Digital Library.

Australian Bureau of Statistics (11/ 2002) *Education Variables, 2002*

ABS website, <https://www.abs.gov.au> Accessed 29 March 2022.

Azeez, A., & Isiugo-Abanihe, U. C. (2017). Sociocultural context and determinants of treatments for hemorrhoids among the Nigerian police, Oyo State Command. *Journal of Social, Behavioral, and Health Sciences*, 11(1), 3.

Bag, A. (2019). Factors leading to stress of a LE officer and the coping mechanisms adapted. *Indian Police Journal*, 124.

Bakker, A. B., & Heuven, E. (2006). Emotional dissonance, burnout, and in-role performance among nurses and police officers. *International Journal of Stress Management*, 13(4), 423–440. <https://doi:10.1037/1072-5245.13.4.423>

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173–1182.

Basinska, B. A., Wiciak, I., & Dąderman, A. M. (2014). Fatigue and burnout in police officers: The mediating role of emotions. *Policing: An International Journal of Police Strategies & Management*.

- Batton, C., & Wright, E. M. (2019). Patriarchy and the structure of employment in criminal justice: Differences in the experiences of men and women working in the legal profession, corrections, and law enforcement. *Feminist Criminology, 14*(3), 287–306.
- Beaumont, E., Durkin, M., Hollins Martin, C. J., & Carson, J. (2016). Compassion for others, self-compassion, quality of life and mental well-being measures and their association with compassion fatigue and burnout in student midwives: A quantitative survey. *Midwifery, 34*, 239–244.
<https://doi:10.1016/j.midw.2015.11.002>
- Bell, S., & Eski, Y. (2016). ‘Break a leg—it’s all in the mind’: police officers’ attitudes towards colleagues with mental health issues. *Policing: A Journal of Policy and Practice, 10*(2), 95-101.
- Bell, S., Hopkin, G., & Forrester, A. (2019). Exposure to traumatic events and the experience of burnout, compassion fatigue and compassion satisfaction among prison mental health staff: An exploratory survey. *Issues in Mental Health Nursing, 40*(4), 304–309.
<https://doi:10.1080/01612840.2018.1534911>
- Benton, A. D. (2016). Understanding the diverging paths of stayers and leavers: An examination of factors predicting worker retention. *Children and Youth Services Review(65)*, 70–77. <https://doi:10.1016/j.childyouth.2016.04.006>
- Bergman, A. L., Christopher, M. S., & Bowen, S. (2016). Changes in facets of mindfulness predict stress and anger outcomes for police officers.

Mindfulness, 7(4), 851–858. <https://doi:10.1007/s12671-016-0522-z>

Bernat, F. P., & Holschuh, C. S. (2015). Is there a war on women or are females fine? An examination of sex, gender, and the criminal justice field. *Women & Criminal Justice*, 25(1-2), 6-10.

Bertilsson, J., Niehorster, D. C., Fredriksson, P. J., Dahl, M., Granér, S., Fredriksson, O., ... & Nyström, M. (2019). Stress levels escalate when repeatedly performing tasks involving threats. *Frontiers in psychology*, 10, 1562. <https://doi.org.ezp.waldenulibrary.org/10.3389/fpsyg.2019.01562>

Bigras, N., Godbout, N., & Briere, J. (2015). Child sexual abuse, sexual anxiety, and sexual satisfaction: The role of self-capacities. *Journal of child sexual abuse*, 24(5), 464-483.

Bishopp, S. A., & Boots, D. P. (2014). General strain theory, exposure to violence, and suicide ideation among police officers: A gendered approach. *Journal of Criminal Justice*, 42(6), 538–548. <https://doi:10.1016/j.jcrimjus.2014.05.001>

Bishopp, S. A., Leeper Piquero, N., Worrall, J. L., & Piquero, A. R. (2018). Negative affective responses to stress among urban police officers: A general strain theory approach. *Deviant Behavior*, 1-20
<https://doi:10.1080/01639625.2018.1436568>

Blumberg, D., & Papazoglou, K. (2019). A brief introduction to multiple psychic wounds in police work. *Crisis, Stress, and Human Resilience: An International Journal*, 1(1), 28-31.

Bonanno, G. A. (2004). Loss, trauma, and human resilience: have we underestimated the

human capacity to thrive after extremely aversive events? *American psychologist*, 59(1), 20.

Bond, J., Sarkisian, K., Charles, L. E., Hartley, T. A., Andrew, M. E., Violanti, J. M., & Burchfiel, C. M. (2013). Association of traumatic police event exposure with sleep quality and quantity in the BCOPS study cohort. *International journal of emergency mental health*, 15(4), 255.

Brady, P. Q. (2017). Crimes against caring: Exploring the risk of secondary traumatic stress, burnout, and compassion satisfaction among child exploitation investigators. *Journal of Police and Criminal Psychology*, 32(4), 305-318. <https://doi.org/10.1007/s11896-016-9223-8>

Branche, R. (2018). *LE officer's mental health seeking attitudes in St Kitts and Nevis*. (79), ProQuest Information & Learning,

Brannen, J. (2017). *Mixing methods: Qualitative and quantitative research*. Routledge.

Branson, D. C., Weigand, D. A., & Keller, J. E. (2014). Vicarious trauma and decreased sexual desire: A hidden hazard of helping others. *Psychological Trauma: Theory, Research, Practice, and Policy*, 6(4), 398.

Bruns, D. L., & Bruns, J. W. (2015). Assessing the worth of the college degree on self-perceived police performance. *Journal of Criminal Justice Education*, 26(2), 121-146.

Breslau, N., Davis, G. C., Andreski, P., Peterson, E. L., & Schultz, L. R. (1997). Sex Differences in Posttraumatic Stress Disorder. *Arch Gen Psychiatry*, 54(11), 1044–1048. <https://doi:10.1001/archpsyc.1997.01830230082012>

- Brewin, C., Andrews, B., & Valentine, J. D. (2000). Meta-Analysis of risk factors for posttraumatic stress disorder in trauma-exposed adults. *Journal of Consulting and Clinical Psychology*, 748-766.
- Bride, B. E., Radey, M., & Figley, C. R. (2007). Measuring compassion fatigue. *Clinical social work journal*, 35(3), 155-163.
- Britt, T. W., Jennings, K. S., Cheung, J. H., Pury, C. L., Zinzow, H. M., Raymond, M. A., & McFadden, A. C. (2016). Determinants of mental health treatment seeking among soldiers who recognize their problem: implications for high-risk occupations. *Work & Stress*, 30(4), 318-336.
<https://doi:10.1080/02678373.2016.1246490>
- Brock, K. J., Pearlman, L. A., & Varra, E. M. (2006). Child maltreatment, self-capacities, and trauma symptoms: Psychometric properties of the Inner Experience Questionnaire. *Journal of Emotional Abuse*, 6(1), 103-125.
- Brooks, M., Ward, C., Euring, M., Townsend, C., White, N., & Hughs, K. L. (2016). Is there a Problem Officer? Exploring the Lived Experience of Black Men and Their Relationship with Law Enforcement. *Journal of African American Studies* , 20(3-4), 346-362. <https://doi:10.1007/s12111-016-9334-4>
- Bryant-Davis, T., Adams, T., Alejandre, A., & Gray, A. A. (2017). The trauma lens of police violence against racial and ethnic minorities. *Journal of Social Issues*, 73(4), 852-871. <https://doi:10.1111/josi.12251>
- “Building Your Resilience.”. (2020). Retrieved from American Psychological

Association, : apa.org/topics/resilience

Bullock, K., & Garland, J. (2018). Police officers, mental (ill-) health and spoiled identity. *Criminology & Criminal Justice*, *18*(2), 173-189.

Burke, K. J., & Shakespeare-Finch, J. (2011). Markers of resilience in new police officers: Appraisal of potentially traumatizing events. *Traumatology*, *17*(4), 52–60.

<https://doi.org.ezp.waldenulibrary.org/10.1177/1534765611430725>

Burke, R. J. (2016). *Stress in Policing* (1st Edition ed.).Routledge.

<https://doi:10.4324/9781315611075>.

Burnett, H. J., & Wahl, K. M. (2015). The compassion fatigue and resilience connection: a survey of resilience, compassion fatigue, burnout and compassion satisfaction among trauma responders. *International Journal of Emergency Mental Health and Human Resilience*, *17*(1), 318-326.

<http://dx.doi.org/10.4172/1522-4821.1000165>

Burnett, M. E., Sheard, I., & St Clair-Thompson, H. (2020). The prevalence of compassion fatigue, compassion satisfaction and perceived stress, and their relationships with mental toughness, individual differences and number of self-care actions in a UK police force. *Police Practice and Research*, *21*(4), 383-400.

<https://doi.org/10.1080/15614263.2019.1617144>

Campbell, J., & Bishop, A. (2019). The impact of caseload and tenure on the development of vicarious trauma in Australian corrective services

employees. *Psychotherapy and Counselling Journal of Australia*, 7(2).

Carleton, R. N., Afifi, T. O., Taillieu, T., Turner, S., Mason, J. E., Ricciardelli, R., McCreary, D. R., Vaughan, A. D., Anderson, G. S., Krakauer, R. L., Donnelly, E. A., Camp II, R. D., Groll, D., Cramm, H. A., MacPhee, R. S., & Griffiths, C. T. (2020). Assessing the relative impact of diverse stressors among public safety personnel. *International journal of environmental research and public health*, 17(4), 1234.

<https://doi:10.3390/ijerph17041234>

Carleton, R. N., Afifi, T. O., Turner, S., Taillieu, T., Duranceau, S., LeBouthillier, D. M., ... & Asmundson, G. J. (2018). Mental disorder symptoms among public safety personnel in Canada. *The Canadian Journal of Psychiatry*, 63(1), 54-64.

Caro, C. A. (2011). Predicting state police officer performance in the field training officer program: What can we learn from the cadet's performance in the training academy? *American Journal of Criminal Justice*, 36(4), 357-370.

Carter, D. L., & Carter, J. G. (2016). Effective police homicide investigations: Evidence from seven cities with high clearance rates. *Homicide Studies*, 20(2), 150-176. <https://doi:10.1177/1088767915576996>

Catanese, S. A. (2010). Traumatized by association: the risk of working sex crimes. *Federal Probation*.(2), 36.

Chen, B., & Lin, K. W. (2013). Are females suitable for police duty? *Journal of Social Sciences*, 9(3), 89.

- Chopko, B. A., Palmieri, P. A., & Adams, R. E. (2013). Associations between police stress and alcohol use: Implications for practice. *Journal of Loss and Trauma, 18*(5), 482-497.
- Chopko, B., & Schwartz, R. (2009). The relation between mindfulness and posttraumatic growth: A study of first responders to trauma-inducing incidents. *Journal of Mental Health Counseling, 31*(4), 363-376. <https://doi.org/10.17744/mehc.31.4.9w6lhk4v66423385>
- Christopher, M. S., Goerling, R. J., Rogers, B. S., Hunsinger, M., Baron, G., Bergman, A. L., & Zava, D. T. (2016). A pilot study evaluating the effectiveness of a mindfulness-based intervention on cortisol awakening response and health outcomes among LEOs. *Journal of Police and Criminal Psychology, 31*(1), 15-28. <https://doi:10.1007/s11896-015-9161-x>
- Coleman, R., Kirby, S., Birdsall, N., Cox, C., & Boulton, L. (2018). Wellbeing in policing: Blue light wellbeing framework.
- Comstock, C., & Platania, J. (2017). The role of media-induced secondary traumatic stress on perceptions of distress. *American International Journal of Social Science, 16*(1).
- Conrad, D., & Kellar-Guenther, Y. (2006). Compassion fatigue, burnout, and compassion satisfaction among Colorado child protection workers. *Child abuse and Neglect, 30*, 1071-1080.
- Cosden, M., Sanford, A., Koch, L. M., & Lepore, C. E. (2016). Vicarious trauma and vicarious posttraumatic growth among substance abuse treatment

providers. *Substance abuse*, 37(4), 619-624.

Creswell, J. W. (2013). Steps in conducting a scholarly mixed methods study.

Crosby, S. D. (2016). Trauma-informed approaches to juvenile justice: A critical race perspective. *Juvenile and Family Court Journal*, 67(1), 5-18. <https://doi.org/10.1111/jfcj.12052>

de Terte, I., Stephens, C., & Huddleston, L. (2014). The Development of a Three-Part Model of Psychological Resilience. *Stress and Health*, 30(5), 416–424. <https://doi.org/10.1002/smi.2625>

Dornbach-Bender, A., Ruggero, C. J., Schuler, K., Contractor, A. A., Waszczuk, M., Kleva, C. S., Bromet, E., Luft, B., & Kotov, R. (2019). Positive and negative affect in the daily life of world trade center responders with PTSD: An ecological momentary assessment study. *Psychological Trauma: Theory, Research, Practice, and Policy*. <https://doi:10.1037/tra0000429>

Dorrington, S., Zavos, H., Ball, H., McGuffin, P., Sumathipala, A., Siribaddana, S., Rijdsdijk, F., Hatch, S. L., & Hotopf, M. (2019). Family functioning trauma exposure and PTSD: A cross sectional study. *Journal of Affective Disorders*, 245, 645-652. <https://doi:10.1016/j.jad.2018.11.056>

Duffin, A. T. (2010). *History in blue: 160 years of women police, sheriffs, detectives, and state troopers*. Kaplan Publishing.

Dunkley, J., & Whelan, T. A. (2006). Vicarious traumatization: Current status and future directions. *British Journal of Guidance and Counselling*, 34, 107-116.

- Duxbury, L., & Halinski, M. (2018). It's not all about guns and gangs: role overload as a source of stress for male and female police officers. *Policing and society*, 28(8), 930-946.
- Edwards, B. D. (2019). Perceived value of higher education among police officers: Comparing county and municipal officers. *Journal of Criminal Justice Education*, 30(4), 606-620. <https://doi.org/10.1080/10511253.2019.1621360>
- Elliot, D., Garg, B., Kuehl, K., DeFrancesco, C., & Sleigh, A. (2015). Why Are Women Law Enforcement Officers More Burned-Out and What Might Help Them? *Occupational medicine & health affairs*, 3(3), 204. <https://doi.org/10.4172/2329-6879.1000204>
- Ellrich, K., & Baier, D. (2017). Post-traumatic stress symptoms in police officers following violent assaults: a study on general and police-specific risk and protective factors. *Journal of interpersonal violence*, 32(3), 331-356. <https://doi:10.1177%2F0886260515586358>
- Elntib, S., & Milincic, D. (2020). Motivations for Becoming a Police Officer: a Global Snapshot. *J Police Crim Psych*. <https://doi:10.1007/s11896-020-09396-w>
- Epstein, S. (1989). *The self-concept, the traumatic neurosis, and the structure of personality*. In D. Ozer, J. M. Healy, Jr., & A. J. Stewart, (Eds.). *Perspectives on personality* (Vol. 3). Greenwich, CT: JAI Press.
- Ermasova, N., Cross, A. D., & Ermasova, E. (2020). Perceived stress and coping among law enforcement officers: An empirical analysis of patrol versus non-

- patrol officers in Illinois, USA. *Journal of Police and Criminal Psychology*, 35(1), 48-63. <https://doi.org/10.1007/s11896-019-09356-z>
- Faust, K. L., & Ven, T. V. (2014). Policing disaster: An analytical review of the literature on policing, disaster, and post-traumatic stress disorder. *Sociology Compass*, 8(6), 614-626. <https://doi.org/10.1111/soc4.12160>
- Fernandes, G., Amaral, A., & Varajão, J. (2018). Wagnild and Youngs's resilience scale validation for IS students. *Procedia Computer Science*, 138, 815-822.
- Ferrante, J. (2017). *DUI Officers' Perspectives on Stress and Coping: A Qualitative Study of DUI Enforcement Work Stress* (Doctoral dissertation, Northcentral University).
- Figley, C.R. (1999). Compassion fatigue: Toward a new understanding of the costs of caring. In B. H. Stamm (Ed.), *Secondary traumatic stress: Self-care issues for clinicians, researchers, & educators* (2nd ed., pp. 3-28). Lutherville, MD: Sidran Press.
- Figley, C. R. (2002). Compassion fatigue: Psychotherapists' chronic lack of self-care. *Journal of clinical psychology*, 58(11), 1433-1441.
- Figley, C. R. (2013). *Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized*. Routledge.
- Fink, G. (Ed.). (2016). *Stress: Concepts, Cognition, Emotion, and Behavior: Handbook of Stress Series, Volume 1* (Vol. 1). Academic Press.
- Flannery, R. J. (2015). Treating psychological trauma in first responders: A multi-modal paradigm. *Psychiatric Quarterly*, 86(2), 261-267.

<https://doi:10.1007/s11126-014-9329-z>

- Fleischmann, M. H., Strode, P., Broussard, B., & Compton, M. T. (2018). LEOs' perceptions of and responses to traumatic events: a survey of officers completing Crisis Intervention Team training. *Policing and Society*, 28(2), 149-156. <https://doi:10.1080/10439463.2016.1234469>
- Fowler, M. (2015). Dealing with compassion fatigue. *Education Digest*, 3, 30.
- Freudenberger, H. J. (1974). Staff Burnout. *Journal of Social Issues*, 30(1), 159-165.
- Fritz, M. S., & MacKinnon, D. P. (2007). Required sample size to detect the mediated effect. *Psychological science*, 18(3), 233-239.
- Fung, H. W., Ross, C. A., Yu, C. K. C., & Lau, E. K. L. (2019). Adverse childhood experiences and dissociation among Hong Kong mental health service users. *Journal of Trauma & Dissociation*, 20(4), 457-470.
- Fyhn, T., Fjell, K. K., & Johnsen, B. H. (2016). Resilience factors among police investigators: Hardiness-commitment a unique contributor. *Journal of Police and Criminal Psychology*, 31(4), 261-269.
- <https://doi:10.1007/s11896-015-9181-6>
- Geist, R. A. (2013). How the empathic process heals: A microprocess perspective. *International Journal of Psychoanalytic Self Psychology*, 8(3), 265-281. <https://doi:10.1080/15551024.2013.800357>
- George, D., & Mallery, P. (2016). *IBM SPSS Statistics 23 Step by Step: A Simple Guide and Reference (13th ed.)*. Routledge.
- Geronazzo-Alman, L., Eisenberg, R., Shen, S., Duarte, C. S., Musa, G. J., Wicks, J., Fan,

- B., Doan, T., Guffanti, G., Bresnahan, M., & Hoven, C. W. (2017). Cumulative exposure to work-related traumatic events and current post-traumatic stress disorder in. *Comprehensive Psychiatry*, *74*, 134–143. <https://doi.org.ezp.waldenulibrary.org/10.1016/j.comppsy.2016.12.003>
- Gill, M. J., Roulet, T. J., & Kerridge, S. P. (2018). Mentoring for mental health: A mixed-method study of the benefits of formal mentoring programmes in the English police force. *Journal of Vocational Behavior*, *108*, 201-213. <https://doi: 10.1016/j.jvb.2018.08.005>
- Gillispie, S. K., Britt, T. W., Burnette, C. M., & McFadden, A. C. (2016). Employee mental health treatment seeking: Perceptions of responsibility and resilience. *Journal of Workplace Behavioral Health*, *31*(1), 1-18.
- Gleichgerrcht, E., & Decety, J. (2014). The relationship between different facets of empathy, pain perception and compassion fatigue among physicians. *Frontiers in Behavioral Neuroscience*.(8), 243. <https://doi.org/10.3389/fnbch.201.00243>
- Grant, H. B., Lavery, C. F., & Decarlo, J. (2019). An exploratory study of police officers: low compassion satisfaction and compassion fatigue. *Frontiers in Psychology*. <https://doi:10.3389/fpsyg.2018.02793>
- Greenwood, K., & Krol, N. (2020). ways managers can support employees' mental health. *Harvard Business Review*. <https://hbr.org/2020/08/8-ways-managers-can-support-employees-mental-health>.
- Greinacher, A., Derezza-Greeven, C., Herzog, W., & Nikendei, C. (2019). Secondary

traumatization in first responders: a systematic review. *European journal of psychotraumatology*, 10(1), 1562840.

Griffin, J. D., & Sun, I. Y. (2018). Do work-family conflict and resiliency mediate police stress and burnout: A study of state police officers. *American Journal of Criminal Justice*, 43(2), 354–370.

<https://doi.org.ezp.waldenulibrary.org/10.1007/s12103-017-9401-y>

Grogin, J., Clark, J. L., Kolts, R., & Lovejoy, T. I. (2019). Compassion focused therapy for anger: A pilot study of a group intervention for veterans with PTSD. *Journal of Contextual Behavioral Science*, 13, 27-33.

<https://doi:10.1016/j.cbs.2019.06.004>

Gronholm, P. C., Henderson, C., Deb, T., & Thornicroft, G. (2017). Interventions to reduce discrimination and stigma: the state of the art. *Social psychiatry and psychiatric epidemiology*, 52(3), 249-258.

Guay, S., Tremblay, N., Goncalves, J., Bilodeau, H., & Geoffrion, S. (2017). Effects of a peer support programme for youth social services employees experiencing potentially traumatic events: a protocol for a prospective cohort study.

BMJ open, 7(6), e014405. <https://doi:10.1136/bmjopen-2016-014405>

Haarr, R. N., & Morash, M. (1999). Gender, race, and strategies of coping with occupational stress in policing. *Justice quarterly*, 16(2), 303-336.

Hadfield, K., & Ungar, M. (2018). Family resilience: Emerging trends in theory and practice. *Journal of Family Social Work*, 21(2), 81-84.

<https://doi:10.1080/10522158.2018.1424426>

- Haecker, V. M. (2018). *Factors affecting mental health seeking behaviors of LEOs*. (78), ProQuest Information & Learning
- Hammonds, B. (2019). *Vicarious Trauma, Perceived Stress, and Self-Care Among Social Workers: A Quantitative Analysis* (Doctoral dissertation, The Chicago School of Professional Psychology).
- 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.
- Harris, K. R., Eccles, D. W., Freeman, C., & Ward, P. (2017). 'Gun! Gun! Gun!': An exploration of LEOs' decision-making and coping under stress during actual events. *Ergonomics, 60*(8), 1112-1122.
<https://doi.org/10.1080/00140139.2016.1260165>
- Haugen, P. T., McCrillis, A. M., Smid, G. E., & Nijdam, M. J. (2017). Mental health stigma and barriers to mental health care for first responders: A systematic review and meta-analysis. *Journal of psychiatric research, 94*, 218-229.
- Heath, P. J., Seidman, A. J., Vogel, D. L., Cornish, M. A., & Wade, N. G. (2017). Help-seeking stigma among men in the military: The interaction of restrictive emotionality and distress. *Psychology of Men & Masculinity, 18*(3), 193.
<https://doi:10.1037/men0000111>
- Hegney, D. G., Craigie, M., Hemsworth, D., Osseiran-Moisson, R., Aoun, S., Francis, K., & Drury, V. (2014). Compassion satisfaction, compassion fatigue, anxiety, depression and stress in registered nurses in Australia: Study 1 results.

Journal of Nursing Management.(22), 506-518.

<https://doi.org/10.1111.jonm.12160>

Hemsworth, D., Baregheh, A., Aoun, S., & Kazanjian, A. (2018). A critical enquiry into the psychometric properties of the professional quality of life scale (ProQol-5) instrument. *Applied Nursing Research*, 39, 81–88.

Heyman, M., Dill, J., & Douglas, R. (2018). Mental Health and Suicide of First Responders. [https://rudermanfoundation.org/white_papers/police-officers-and-firefighters-are-more-likely-to-die-by-suicide-than-in-line-of-duty/]. *Ruderman Family Foundation*, 1-41.

Hilliard, J. (2019). New study shows police at highest risk for suicide of any profession. *Addiction Center*. <https://www.addictioncenter.com/news/2019/09/police-at-highest-risk-forsuicide-than-any-profession>.

Hope, J. (2017). Recognize challenges of mental illness in law enforcement, support officers seeking help. *Campus Security Report*, 14(5), 6-7.
<https://doi:10.1002/casr.30300>

Howell, D. C. (2013). *Fundamental statistics for the behavioral sciences* (8th ed.). Belmont CA: Brooks/Cole-Thompson Learning.

Hudson, J. I., Pope Jr, H. G., & Glynn, R. J. (2005). The cross-sectional cohort study: an underutilized design. *Epidemiology*, 16(3), 355-359.
<https://doi:10.1097/01.ede.0000158224.50593.e3>

Inzunza, M. (2015). Empathy from a police work perspective. *Journal of Scandinavian Studies in Criminology & Crime Prevention*, 16(1), 60-75.

<https://doi.org/10.1080/14043858.2014.987518>

- Inzunza, M., & Wikström, C. (2020). European police recruits' views on ideal personal characteristics of a police officer. *Policing and Society*, 30(10), 1243-1262.
- Irish, L. A., Fischer, B., Fallon, W., Spoonster, E., Sledjeski, E. M., & Delahanty, D. L. (2011). Gender differences in PTSD symptoms: An exploration of peritraumatic mechanisms. *Journal of Anxiety Disorders*, 25(2), 209-216.
<https://doi.org/10.1016/j.janxdis.2010.09.004>
- Jaffe, P. G., Crooks, C. V., Dunford-Jackson, B. L., & Town, J. M. (2003). Vicarious trauma in judges: The personal challenge of dispensing justice. *Juvenile and Family Court Journal*, 54(4), 1-9.
- Janssens, K. M., van der Velden, P. G., Taris, R., & van Veldhoven, M. J. (2021). Resilience among police officers: a critical systematic review of used concepts, measures, and predictive values of resilience. *Journal of police and criminal psychology*, 36(1), 24-40.<https://doi.org/10.1007/s11896-018-9298-5>
- Jung, H., von Sternberg, K., & Davis, K. (2017). The impact of mental health literacy, stigma, and social support on attitudes toward mental health help-seeking. *International Journal of Mental Health Promotion*, 19(5), 252-267.
<https://doi:10.1080/14623730.2017.1345687>
- Kaiser, K. A., O'Neal, E. N., & Spohn, C. (2017). "Victim refuses to cooperate": A focal concerns analysis of victim cooperation in sexual assault cases. *Victims &*

Offenders, 12(2), 297-322. <https://doi:10.1080/15564886.2015.1078864>

- Kaplan, J. B., Christopher, M. S., & Bowen, S. (2018). Dispositional mindfulness moderates the relationship between occupational stressors and perceived stress among LE personnel. *Journal of Police and Criminal Psychology*, 33(3), 227-232. <https://doi:10.1007/s11896-017-9246-9>
- Karaffa, K. M., & Koch, J. M. (2016). Stigma, pluralistic ignorance, and attitudes toward seeking mental health services among police officers. *Criminal Justice and Behavior*, 43(6), 759-777. <https://doi:10.1177%2F0093854815613103>
- Karatoreos, I. N., & McEwen, B. S. (2013). Annual research review: The neurobiology and physiology of resilience and adaptation across the life course. *The Journal of Child Psychology and Psychiatry*, 54, 337–347.
- Katz, S., & Haldar, D. (2015). The pedagogy of trauma-informed lawyering. *Clinical L. Rev.*, 22, 359.
- Kehl, D., Knuth, D., Hulse, L., & Schmidt, S. (2014). Posttraumatic reactions among firefighters after incidents: Cross-national data. *Journal of Aggression, Maltreatment & Trauma*, 23(8), 842-853.
<https://doi:10.1080/10926771.2014.938143>
- Kibler, J. (2011). *Cognitive Schemas* (Encyclopedia of Child Behavior and Development. ed.). (N. J. Goldstein S., Ed.) Springer.
- Kim, J. (2015). What increases public employees' turnover intention? *Public Personnel Management*, 44(4), 496-519. <https://doi:10.1177/0091026015604447>
- Knight, C. (2013). Indirect trauma: Implications for self-care, supervision, the

organization, and the academic institution. *The Clinical Supervisor*, 32(2), 224-243.

Ko, S. J., Ford, J. D., Kassam-Adams, N., Berkowitz, S. J., Wilson, C., Wong, M., Brymer, M. J., & Layne, C. M. (2008). Creating trauma-informed systems: Child welfare, education, first responders, health care, juvenile justice. *Professional Psychology: Research and Practice*, 39(4), 396-404.

<https://doi:10.1037/0735-7028.39.4.396>

Kowalczyk, D., & Sharps, M. J. (2017). Consequences of undercover operations in law enforcement: A review of challenges and best practices. *Journal of Police and Criminal Psychology*, 32(3), 197-202.

Kurtz, D. L. (2008). Controlled burn: The gendering of stress and burnout in modern policing. *Feminist Criminology*, 3(3), 216-

238. <https://doi:10.1177/1557085108321672>

Lawrence, M. (2017). Near-death and other transpersonal experiences occurring during catastrophic events. *American Journal of Hospice and Palliative Medicine*®, 34(5), 486-

492. <https://doi.org.ezp.waldenulibrary.org/10.1177/1049909116631298>

Ledesma, J. (2014). Conceptual frameworks and research models on resilience in leadership. *Sage Open*, 4(3),

<https://doi.org.ezp.waldenulibrary.org/10.1177/2158244014545464>

Lee, J. K., Choi, H. G., Kim, J. Y., Nam, J., Kang, H. T., Koh, S. B., & Oh, S. S. (2016). Self-resilience as a protective factor against development of post-traumatic

stress disorder symptoms in police officers. *Annals of occupational and environmental medicine*, 28(1), 58. <https://doi:10.1186/s40557-016-0145-9>

Leppma, M., Mnatsakanova, A., Sarkisian, K., Scott, O., Adjeroh, L., Andrew, M. E., Violanti, J. M., & McCanlies, E. C. (2018). Stressful life events and posttraumatic growth among police officers: A cross-sectional study. *Stress and Health*, 34(1), 175-186. <https://doi.org/10.1002/smi.2772>

Levitt, H. M., Motulsky, S. L., Wertz, F. J., Morrow, S. L., & Ponterotto, J. G. (2017). Recommendations for designing and reviewing qualitative research in psychology: Promoting methodological integrity. *Qualitative psychology*, 4(1), 2. <https://doi-org.ezp.waldenulibrary.org/10.1037/qup0000082>

Lewis, K. R., Lewis, L. S., & Garby, T. M. (2013). Surviving the trenches: The personal impact of the job on probation officers. *American Journal of Criminal Justice*, 38(1), 67-84.

Lijtmaer, R. (2017). Untold stories and the power of silence in the intergenerational transmission of social trauma. *The American Journal of Psychoanalysis*, 77(3), 274-284. <https://doi:10.1057/s11231-017-9102-9>

Loader, I. (2016). In search of civic policing: recasting the 'Peelian' principles. *Criminal Law and Philosophy*, 10(3), 427-440.

Lockey, S., Graham, L., Zheng, Y., Hesketh, I., Plater, M., & Gracey, S. (2022). The impact of workplace stressors on exhaustion and work engagement in

policing. *Police Journal*, 95(1), 190–206.

<https://doi.org/10.1177/0032258X211016532>

Lonn, M. R., & Haiyasoso, M. (2016). Helping counselors “stay in their chair”:

Addressing vicarious trauma in supervision. *VISTAS 2016*, 1-12.

Lumsden, K., & Black, A. (2018). Austerity policing, emotional labour and the

boundaries of police work: an ethnography of a police force control room

in England. *The British journal of criminology*, 58(3), 606-

623. <https://doi:10.1093/bjc/azx045>

Ma, C. C., Hartley, T. A., Sarkisian, K., Fekedulegn, D., Mnatsakanova, A., Owens, S., ...

& Andrew, M. E. (2019). Influence of work characteristics on the

association between police stress and sleep quality. *Safety and health at*

work, 10(1), 30-38. <https://doi.org/10.1016/j.shaw.2018.07.004>

MacEachern, A. D., Dennis, A. A., Jackson, S., & Jindal-Snape, D. (2019). Secondary

traumatic stress: prevalence and symptomology amongst detective officers

investigating child protection cases. *Journal of police and criminal*

psychology, 34(2), 165-174.

Maguire, G., & Byrne, M. K. (2017). The law is not as blind as it seems: Relative rates of

vicarious trauma among lawyers and mental health professionals.

Psychiatry, Psychology and Law, 24(2), 233-243.

<https://doi:10.1080/13218719.2016.1220037>

Mairean, C., Cimpoesu, D., & Turliuc, M. N. (2014). The effects of traumatic situations

on emergency medicine practitioners. *Revista de cercetare si interventie*

sociala, 44, 279.

- Makhene, A. (2019). The use of the Socratic inquiry to facilitate critical thinking in nursing education. *Health SA Gesondheid*, 24, 1-6.
- Mann, C. J. (2003). Observational research methods. Research design II: cohort, cross sectional, and case-control studies. (Research Series). *Emergency Medicine Journal*, 1, 54.
- Maran, D. A., Varetoc, A., Zedda, M., & Ieraci, V. (2015). Occupational stress, anxiety and coping strategies in police officers. *Occupational Medicine*, 65(6), 466-473.
- Marciniak, L. M., & Elattrache, A. D. (2020). Police Chiefs' Opinions on the Utility of a College Education for Police Officers. *Journal of Criminal Justice Education*, 31(3), 436–453.
<https://doi.org.ezp.waldenulibrary.org/10.1080/10511253.2020.1791352>
- Martínez-Martí, M. L., & Ruch, W. (2017). Character strengths predict resilience over and above positive affect, self-efficacy, optimism, social support, self-esteem, and life satisfaction. *Journal of Positive Psychology*, 12(2), 110–119.
<https://doi.org.ezp.waldenulibrary.org/10.1080/17439760.2016.1163403>
- Maslach, C. (1982). *Burnout: The cost of caring*. Prentice Hall.
- Masson, F. (2019). Enhancing resilience as a self-care strategy in professionals who are vicariously exposed to trauma: A case study of social workers employed by the South African Police Service. *Journal of Human Behavior in the*

Social Environment, 29(1), 57-75.

- Masten, A. S., & Cicchetti, D. (2012). Risk and resilience in development and psychopathology: The legacy of Norman Garmezy. *Development & Psychopathology*, 24(2), 333–334.
<https://doi.org.ezp.waldenulibrary.org/10.1017/S0954579412000016>
- Mattos, D. (2010). The need to promote career-long vitality and wellness in the police profession. *The FBI LE Bulletin*, 79(10), 18+.
- McCanlies, E. C., Gu, J. K., Andrew, M. E., & Violanti, J. M. (2018). The effect of social support, gratitude, resilience and satisfaction with life on depressive symptoms among police officers following Hurricane Katrina. *International Journal of Social Psychiatry*, 64(1), 63–72.
<https://doi.org/10.1177/0020764017746197>
- McCann, I. L., & Pearlman, L. A. (1990). Vicarious traumatization: A framework for understanding the psychological effects of working with victims. *Journal of traumatic stress*, 3(1), 131-149.
- McCann, I. L., & Pearlman, L. A. (1992). Constructivist self-development theory: A theoretical framework for assessing and treating traumatized college students. *Journal of American College Health*, 40(4), 189-196.
- McCarty, W. P. (2013). Gender differences in burnout among municipal police sergeants. *Policing. An International Journal of Police Strategies & Management*(4), 803. <https://doi:10.1108/PIJPSM-03-2013-0026>
- McCormack, L., & Riley, L. (2016). Medical discharge from the “family,” moral injury,

and a diagnosis of PTSD: Is psychological growth possible in the aftermath of policing trauma? *Traumatology*, 22(1),

<https://doi:10.1037/trm0000059>

McDermott, P. J., & Hulse, D. (2012). Interpersonal skills training in police academy curriculum. *The FBI LE Bulletin*, 81(2), 16+.

McKeever, V. M., & Huff, M. E. (2003). A diathesis-stress model of posttraumatic stress disorder: Ecological, biological, and residual stress pathways. *Review of General Psychology*, 7(3), 237-250. <https://doi.org/10.1037/1089-2680.7.3.237>

Ménard, K. S., Arter, M. L., & Khan, C. (2016). Critical incidents, alcohol and trauma problems, and service utilization among police officers from five countries. *International journal of comparative and applied criminal justice*, 40(1), 25-42. <https://doi:10.1080/01924036.2015.1028950>

Merhav, I., Lawental, M., & Peled-Avram, M. (2018). Vicarious traumatization: Working with clients of probation services. *The British Journal of Social Work*, 48(8), 2215-2234. <https://doi.org/10.1093/bjsw/bcx162>

Michalopoulos, L. M., & Aparicio, E. (2012). Vicarious trauma in social workers: The role of trauma history, social support, and years of experience. *Journal of Aggression, Maltreatment & Trauma*, 21(6), 646-664.

Middleton, J. S., & Potter, C. C. (2015). Relationship between vicarious traumatization and turnover among child welfare professionals. *Journal of Public Child Welfare*, 9(2), 195-216. <https://doi.org/10.1080/15548732.2015.1021987>

- Miller, M. K., Flores, D. M., & Pitcher, B. J. (2010). Using constructivist self-development theory to understand judges' reactions to a courthouse shooting: An exploratory study. *Psychiatry, Psychology, and Law*, *17*(1), 121–138. <https://doi.org/10.1080/13>
- Moreto, W. D. (2016). Occupational stress among LE rangers: Insights from Uganda. *Oryx*, *50*(4), 646-654. <https://doi:10.1017/S0030605315000356>
- Muijs, D. (2010). *Doing quantitative research in education with SPSS*. Thousand Oaks, CA: Sage.
- Mulay, A. L., Vayshenker, B., West, M. L., & Kelly, E. (2016). Crisis intervention training and implicit stigma toward mental illness: Reducing bias among criminal justice personnel. *International journal of forensic mental health*, *15*(4), 369-381. <https://doi:10.1080/14999013.2016.1208308>
- Newell, J., & McNeill, G. (2010). Professional burnout, vicarious trauma, secondary traumatic stress, and compassion fatigue: A review of theoretical term, risk factor, and preventive methods for clinicians and researchers. *Best Practices in Mental Health*, *6*(2).
- Newman, I., Benz, C. R., & Ridenour, C. S. (1998). *Qualitative-quantitative research methodology: Exploring the interactive continuum*. SIU Press.
- Neylan, T. C. (2013). Sleep and psychological vulnerability to traumatic stress. *Sleep: Journal of Sleep and Sleep Disorders Research*, *36*(7), 967–968. <https://doi.org/10.5665/sleep.2782>
- Nyatanga, B. (2013). Empathy in palliative care: is it possible to understand another

- person? *International Journal of Palliative Nursing*, 19(10), 471.
- O'Leary, V. E. (1998). Strength in the face of adversity: Individual and social thriving. *Journal of Social Issues*, 54, 425-446.
- Olf, M. (2017). Sex and gender differences in post-traumatic stress disorder: an update. *European Journal of Psychotraumatology*, 8.
<https://doi.org/10.1080/20008198.2017.1351204>
- Osofsky, J. D., Putman, F. W., & Lederman, C. S. (2008). How to Maintain Emotional Health When Working with Trauma. *Juvenile & Family Court Journal*, 59(4), 91-102.
- Oxburgh, L., Gabbert, F., Milne, R., & Cherryman, J. (2016). Police officers' perceptions and experiences with mentally disordered suspects. *International journal of law and psychiatry*, 49, 138-146. <https://doi: 10.1016/j.ijlp.2016.08.008>
- Padyab, M., Backteman-Erlanson, S., & Brulin, C. (2016). Burnout, coping, stress of conscience and psychosocial work environment among patrolling police officers. *Journal of Police and Criminal Psychology*, 31(4), 229–237.
<https://doi.org/10.1007/s11896-015-9189-y>
- Paille, P., & Marche, A. (2019). Stressful work, citizenship behaviour and intention to leave the organisation in a high turnover environment: Examining the mediating role of job satisfaction. *Psychology & Health* (25), 294.
- Paoline, E. A., III, & Terrill, W. (2007). Police education, experience, and the use of force. *Criminal Justice and Behavior*, 34(2), 179–196.
<https://doi.org/10.1177/0093854806290239>

- Paoline III, E. A., Terrill, W., & Rossler, M. T. (2015). Higher education, college degree major, and police occupational attitudes. *Journal of criminal justice education*, 26(1), 49-73.
- Papazoglou, K., & Andersen, J. P. (2014). Exploring compassion fatigue and compassion satisfaction among police. <https://doi.org/10.1037/e5>
- Papazoglou, K., Blumberg, D. M., Chiongbian, V. B., Tuttle, B. M., Kamkar, K., Chopko, B., Milliard, B., Aukhojee, P., & Koskelainen, M. (2020). The role of moral injury in PTSD among law enforcement officers: A brief report. *Frontiers in psychology*, 11, 310.
- Papazoglou, K., Koskelainen, M., & Stuewe, N. (2019). Examining the relationship between personality traits, compassion satisfaction, and compassion fatigue among police officers. *Sage*, 9(1), 1-13.
- Papazoglou, K., Koskelainen, M., Tuttle, B., & Pitel, M. (2017). Examining the role of police compassion fatigue and negative personality traits in impeding the promotion of police compassion satisfaction: a brief report. *J. Law Enforce.*, 6, 1–14.
- Papazoglou, K., & Tuttle, B. M. (2018). Fighting police trauma: Practical approaches to addressing psychological needs of officers. *Sage Open*, 8(3), 2158244018794794. <https://doi:10.1177/2158244018794794>
- Pasillas, R. M., Follette, V. M., & Perumean-Chaney, S. E. (2006). Occupational stress and psychological functioning in LEOs. *Journal of Police and Criminal Psychology*, 21(1), 41-53. <https://doi:10.1007/BF02849501>

- Paterson, A. (2021). Keeping Well. Coping. In *Trauma and Resilience in Contemporary Australian Policing* (pp. 83-113). Springer, Singapore.
- Paton, D., Johnston, P., Clarke, J., Violanti, J. M., Burke, K. J., & Keenan, D. (2008). Stress shield: a model of police resiliency. *Int. J. Emerg. Ment. Health, 10*, 95–108.
- Pearlman, L. A. (1995). Self-care for trauma therapists: Ameliorating vicarious traumatization. Sidran Press.
- Pearlman, L. A., & Saakvitne, K. W. (1995). Trauma and the therapist: Countertransference and vicarious traumatization in psychotherapy with incest survivors.
- Perkins, E. B., & Sprang, G. (2013). Results from the Pro-QOL-IV for substance abuse counselors working with offenders. *International Journal of Mental Health and Addiction, 11*(2), 199-213.
- Perron, B. E., & Hiltz, B. S. (2006). Burnout and Secondary trauma among forensic interviewers of abused children. *Child & Adolescent Social Work Journal*(23), 216-234.
- Phelps, A., Lloyd, D., Creamer, M., & Forbes, D. (2009). Caring for carers in the aftermath of trauma. *Journal of Aggression, Maltreatment & Trauma, 18*(3), 313–330.
- <https://doi.org.ezp.waldenulibrary.org/10.1080/10926770902835899>
- Piaget, J. (1971). *Psychology and epistemology: Toward a theory of knowledge*. Viking.
- Pietrzak, R. H., & Southwick, S. M. (2011). Psychological resilience in OEF–OIF

- Veterans: Application of a novel classification approach and examination of demographic and psychosocial correlates. *Journal of affective disorders*, 133(3), 560-568.
- Pole, N., Kulkarni, M., Bernstein, A., & Kaufmann, G. (2006). Resilience in retired police officers. *Traumatology*, 12(3), 207-216.
- Powell, M. B., & Tomy, A. J. (2011). Life satisfaction amongst police officers working in the area of child abuse investigation. *International Journal of Police Science & Management*, 13(2), 187-194.
<https://doi:10.1350/1yps.2011.13.2.225>
- Prati, G., & Pietrantonio, L. (2010). Risk and resilience factors among Italian municipal police officers exposed to critical incidents. *Journal of Police and Criminal Psychology*, 25(1), 27-33.
- Pryce, J. G., Shackelford, K. K., & Pryce, D. H. (2007). *Secondary traumatic stress and the child welfare professional*. US.
- Pulverman, C. S., Boyd, R. L., Stanton, A. M., & Meston, C. M. (2016). Changes in the Sexual Self-Schema of Women with a History of Childhood Sexual Abuse Following Expressive Writing Treatment. *Psychological Trauma: Theory, Research, Practice, and Policy*. <https://doi.org/10.1037/tra0000163>
- Purba, A., & Demou, E. (2019). The relationship between organizational stressors and mental wellbeing within police officers: a systematic review. *BMC public health*, 19(1), 1286. <https://doi:10.1186/s12889-019-7609-0>
- Rabe-Hemp, C. E., & Miller, S. L. (2018). Women at work in criminal justice

organizations. *Feminist Criminology*, 13(3), 231-236.

Raz, A., Shadach, E., & Levy, S. (2018). Gaining Control Over Traumatic Experiences: The Role of Guilt in Posttraumatic Stress Disorder. *Journal of Aggression, Maltreatment & Trauma*, 27(5), 461-474.

<https://doi:10.1080/10926771.2017.1389792>

Rees, B., & Smith, J. (2007). Breaking the silence: the traumatic circle of policing.

International Journal of Police Science and Management, 10(3), 267-279.

Rhineberger-Dunn, G., Mack, K. Y., & Baker, K. M. (2016). Secondary trauma among community corrections staff: An exploratory study. *Journal of Offender Rehabilitation*, 55(5), 293–307.

<https://doi.org/10.1080/10509674.2016.1181132>

Roach, J., Cartwright, A., & Sharratt, K. (2017). Dealing with the unthinkable: A study of the cognitive and emotional stress of adult and child homicide investigations on police investigators. *Journal of police and criminal psychology*, 32(3), 251-262. <https://doi:10.1007/s11896-016-9218-5>

Roach, J., Sharratt, K., Cartwright, A., & Skou Roer, T. (2018). Cognitive and emotional stressors of child homicide investigations on UK and Danish police investigators. *Homicide studies*, 22(3), 296-320.

<https://doi:10.1177%2F1088767918759695>

Rollins, A. L., Kukla, M., Morse, G., Davis, L., Leiter, M., Monroe-DeVita, M., Flanagan, M. E., Russ, A., Wasmuth, S., Eliacin, J., Collins, L., & Salyers, M. P. (2016). Comparative effectiveness of a burnout reduction.

Psychiatric Services, 67(8), 920-923.

<https://doi.org/10.1176/appi.ps.201500220>

- Rose, T., & Unnithan, P. (2015). In or out of the group? Police subculture and occupational stress. *Policing: An International Journal of Police Strategies & Management*.
- Rosenbaum, D., Lawrence, D., Hartnett, S., McDevitt, J., & Posick, C. (2015). Measuring procedural justice and legitimacy at the local level: the police-community interaction survey. *Journal of Experimental Criminology*, 11(3), 335-366.
- Rosenberg, T., & Pace, M. (2006). Burnout among mental health professionals: Special considerations for the marriage and family therapist. *Journal of marital and family therapy*, 32(1), 87-99.
- Ruotsalainen, J. H., Verbeek, J. H., Mariné, A., & Serra, C. (2015). Preventing occupational stress in healthcare workers. *Cochrane Database of Systematic Reviews*, (4).
- Russo, C., Aukhojee, P., Tuttle, B. M., Johnson, O., Davies, M., Chopko, B. A., & Papazoglou, K. (2020). Compassion fatigue & burnout. In *POWER* (pp. 97-115). Academic Press.
- Saakvitne, K. W., & Pearlman, L. A. (1996). *Transforming The Pain: A Workbook on Vicarious Traumatization* (First ed.). W. W. Norton & Company.
- San Too, L., & Butterworth, P. (2018). Psychosocial job stressors and mental health: The potential moderating role of emotion regulation. *Journal of occupational and environmental medicine*, 60(10), e518-e524.

<https://doi:10.1097/JOM.0000000000001416>

- Scheibe, A., Howell, S., Müller, A., Katumba, M., Langen, B., Artz, L., & Marks, M. (2016). Finding solid ground: law enforcement, key populations and their health and rights in South Africa. *Journal of the International AIDS Society, 19*, 20872. <https://doi:10.7448/IAS.19.4.20872>
- Schlosser, M. D., Cha-Jua, S., Valgoi, M. J., & Neville, H. A. (2015). Improving policing in a multiracial society in the United States: A new approach. *International Journal of Criminal Justice Sciences, 10*(1), 115.
- Schwarzer, R. C. (2016). A PTSD symptoms trajectory mediates between exposure levels and emotional support in police responders to 9/11: A growth analysis. *BMC Psychiatry 16*.
- Scott, M. S. (2010). Policing and police research: learning to listen, with a Wisconsin case study. *Police Practice and Research: An International Journal, 11*(2), 95-104.
- Seigfried-Spellar, K. C. (2018). Assessing the psychological well-being and coping mechanisms of law enforcement investigators vs. digital forensic examiners of child pornography investigations. *Journal of Police and Criminal Psychology, 33*(3), 215-226.
- Selye, H. (1956). Stress and psychiatry. *American Journal of Psychiatry, 113*(5), 423-427.
- Shernock, S. K. (2006). The effects of college education on professional attitudes among police. *Journal of Criminal Justice Education, 3*(1).

- Snyder, T. D., de Brey, C., & Dillow, S. A. (2018). *National Center for Education Statistics (ED), & American Institutes for Research. (2016). Digest of Education Statistics 2014, 50th Edition.*
- Soomro, S., & Yanos, P. T. (2019). Predictors of mental health stigma among police officers: the role of trauma and PTSD. *Journal of police and criminal psychology, 34*(2), 175-183. <https://doi://10.1007/s11896-018-9285-x>
- Southwick, S. M., Bonanno, G. A., Masten, A. S., Panter-Brick, C., & Yehuda, R. (2014). Resilience definitions, theory, and challenges: Interdisciplinary perspectives. *European Journal of Psychotraumatology, 5*.
- Southwick, S. M., & Charney, D. S. (2012). *Resilience: The science of mastering life's greatest challenges.* Cambridge University Press.
- Southwick, S. M., Pietrzak, R. H., Tsai, J., Krystal, J. H., & Charney, D. (2015). Resilience: an update. *PTSD research Quarterly, 25*(4), 1-10.
- Spence, W., & Millott, J. (2016). An exploration of attitudes and support needs of police officer negotiators involved in suicide negotiation. *Police Practice and Research, 17*(1), 5-21. <https://doi:10.1080/15614263.2014.961455>
- Spence, D., Fox, M., Moore, G., Estill, S., & Comrie, N. (2019). *Law Enforcement Mental Health and Wellness Act: Report to Congress.* Washington, DC: U.S. Department of Justice.
- Spencer, D., Dodge, A., Ricciardelli, R., & Ballucci, D. (2018). "I think it's re-victimizing victims almost every time": Police perceptions of criminal justice responses to sexual violence. *Critical criminology, 26*(2), 189-209.

<https://doi:10.1007/s10612-018-9390-2>

Stamm, B. (2010). *The Concise ProQOL Manual, 2nd ED*. Pocatello, ID. Retrieved from ProQOL.org

Stancel, K., Russo, C., Koskelainen, M., Papazoglou, K., & Tuttle, B. M. (2019). Police moral injury, compassion fatigue, and compassion satisfaction: a brief report. *Salus Journal*, 7(1), 42.

Stanley, I. H., Hom, M. A., & Joiner, T. E. (2016). A systematic review of suicidal thoughts and behaviors among police officers, firefighters, EMTs, and paramedics. *Clinical Psychology Review*, 44, 25-44. <https://doi:10.1016/j.cpr.2015.12.002>

Stevens, J. P. (2009). *Applied multivariate statistics for the social sciences* (5th ed.). Mahwah, NJ: Routledge Academic.

Stoughton, S. (2014). Law enforcement's warrior problem. *Harv. L. Rev. F.*, 128, 225.

Summers, K., Campbell, A. M., Gray, H., Zetmeir, L. A., & Nelson Goff, B. S. (2017). A comparison study of low trauma disclosure participants and their partners in army couples. *Marriage & Family Review*, 53(6), 556-575. <https://doi:10.1080/01494929.2016.1247762>

SurveyMonkey. (2020). SurveyMonkey Inc.

Tabachnick, B. G., & Fidell, L. S. (2013). *Using multivariate statistics*. Pearson Education.

Tan, S. Y., & Yip, A. (2018). Hans Selye (1907-1982): Founder of the stress theory. *Singapore Medical Journal*, 59(4), 170–171.

<https://doi:10.11622/smedj.2018043>

- Thompson, I., Amatea, E., & Thompson, E. (2014). Personal and contextual predictors of mental health counselors' compassion fatigue and burnout. *Journal of Mental Health Counseling, 36*(1), 58-77.
- Thornton, M. A., & Herndon, J. (2016). Emotion regulation in police officers following distress: Effects of tenure and critical incidents. *Journal of police and criminal psychology, 31*(4), 304-309. <https://doi:10.1007/s11896-015-9186-1>
- Tovar, L. A. (2011). Vicarious traumatization and spirituality in law enforcement. *FBI L. Enforcement Bull., 80*, 16.
- Trochim, W. M., & Donnelly, J. P. (2008). *Research methods knowledge base*. Atomic Dog Pub.
- Tundral, S., & Behmani, R. K. (2016). Relationship between organizational role stress and life satisfaction among female police personnel. *Indian Journal of Health & Wellbeing, 7*(2), 225-228.
- Turgoose, D., Glover, N., Barker, C., & Maddox, L. (2017). Empathy, compassion fatigue and burnout in police officers working with rape victims. *Traumatology, 23*(2), 205-213. <https://doi:10.1037/trm0000.118>
- Turner, T., & Jenkins, M. (2019). 'Together in Work, but Alone at Heart': Insider Perspectives on the Mental Health of British Police Officers. *Policing: A Journal of Policy and Practice, 13*(2), 147-156. <https://doi:10.1093/police/pay016>

- Ungar, M. (2013). Resilience, trauma, context, and culture. *Trauma, violence, & abuse*, *14*(3), 255-266.
- Ungvarsky, J. (2020). Diathesis–stress model. *Salem Press Encyclopedia*.
- Uniform Crime Reporting*. (2017). Retrieved from <http://bjs.gov/ucrdata/abouttheucr.cfm>
- United States Department of Justice. (2020). Retrieved from <https://www.justice.gov/file/1354561/download>
- Urie, Y., Velaga, N. R., & Maji, A. (2016). Cross-sectional study of road accidents and related LE efficiency for 10 countries: a gap coherence analysis. *Traffic injury prevention*, *17*(7), 686-691.
<https://doi:10.1080/15389588.2016.1146823>
- Vancini, R. L., de Lira, C. A., Anceschi, S. A., Rosa, A. V., Lima-Leopoldo, A. P., Leopoldo, A. S., Rufo-Tavares, W., Andrade, M. S., Nikolaidis, P. T., Rosemann, T., & Knechtle, B. (2018). Anxiety, depression symptoms, and physical activity levels of eutrophic and excess-weight Brazilian elite police officers: a preliminary study. *Psychology research and behavior management*, *11*, 589–595. <https://doi.org/10.2147/PRBM.S186128>
- Van Craen, M. (2016). Understanding police officers' trust and trustworthy behavior: A work relations framework. *European journal of criminology*, *13*(2), 274-294.
- Van der Meulen, E., van der Velden, P. G., Setti, I., & van Veldhoven, M. J. (2018). Predictive value of psychological resilience for mental health disturbances: A three-wave prospective study among police officers.

Psychiatry research, 260, 486-494. [https://doi:](https://doi.org/10.1016/j.psychres.2017.12.014)

[10.1016/j.psychres.2017.12.014](https://doi.org/10.1016/j.psychres.2017.12.014)

van der Velden, P. G., Oudejans, M., Das, M., Bosmans, M. W. G., & Maercker, A.

(2019). The longitudinal effect of social recognition on PTSD

symptomology and vice versa: Evidence from a population-based study.

Psychiatry Research, 279, 287-294. [https://doi:](https://doi.org/10.1016/i.psychres.2019.05.044)

[10.1016/i.psychres.2019.05.044](https://doi.org/10.1016/i.psychres.2019.05.044)

Van Hook, M., & Rothenberg, M. (2009). Quality of Life and Compassion

Satisfaction/Fatigue and burnout in child welfare workers: A study of the

child welfare worker in community-based care organizations in central

Florida. *Social Work and Christianity*, 36(1), 36-54.

Van Lelyveld, C. R. (2008). *The experience of vicarious trauma by the police officers*

within the South African Police Service in Limpopo Province (Doctoral dissertation, University of Limpopo (Turffloop Campus)).

Velazquez, E. (2019). Effects of police officer exposure to traumatic experiences and

recognizing the stigma associated with police officer mental health: A

state-of-the-art review. *Policing: An International Journal*, 42(4), 711-

724. [https://doi:10.1108/PIJPSM-09-2018-0147](https://doi.org/10.1108/PIJPSM-09-2018-0147)

Velazquez, E., & Hernandez, M. (2019). Effects of police officer exposure to traumatic

experiences and recognizing the stigma associated with police officer

mental health: A state-of-the-art review. *Policing: An International*

Journal.

- Verrecchia, P. J., & Sloan, M. (2013). Has 30 years made a difference? Attitudes of male criminal justice majors towards female police officers revisited (again). *The Virginia Social Science* www.virginiasocialscience.org, 48, 97-112.
- Violanti, J. M. (1995). The mystery within: Understanding police suicide. *FBI L. Enforcement Bull.*, 64, 19.
- Violanti, J. M. (2006). The police: Perspectives on trauma and resiliency. *Traumatology*, 12(3), 167- 69.
<https://doi.org.ezp.waldenulibrary.org/10.1177/1534765606296998>
- Violanti, J. M., Charles, L. E., McCanlies, E., Hartley, T. A., Baughman, P., Andrew, M. E., Fekedulegn, D., Ma, C. C., Mnatsakanova, A., & Burchfiel, C. M. (2017). Police stressors and health: A state-of-the-art review. *Policing: An International Journal of Police Strategies & Management*,
<https://doi:10.1108/PIJPSM-06-2016-0097>
- Violanti, J. M., Fekedulegn, D., Hartley, T. A., Charles, L. E., Andrew, M. E., Ma, C. C., & Burchfiel, C. M. (2016). Highly Rated and most Frequent Stressors among Police Officers: Gender Differences. *American Journal of Criminal Justice*, (4), 645.
- Violanti, J. M., Fekedulegn, D., Andrew, M. E., Hartley, T. A., Charles, L. E., Miller, D. B., & Burchfiel, C. M. (2017). The impact of perceived intensity and frequency of police work occupational stressors on the cortisol awakening response (CAR): findings from the BCOPS study. *Psychoneuroendocrinology*, 75, 124-131. <http://doi:>

[10.1016/j.psyneuen.2016.10.017](https://doi.org/10.1016/j.psyneuen.2016.10.017)

- Violanti, J. M., Ma, C. C., Mnatsakanova, A., Fekedulegn, D., Hartley, T. A., Gu, J. K., & Andrew, M. E. (2018). Associations between police work stressors and posttraumatic stress disorder symptoms: examining the moderating effects of coping. *Journal of police and criminal psychology*, 33(3), 271-282.
[https://doi:10.1007/s11896-018-9276-y](https://doi.org/10.1007/s11896-018-9276-y)
- Violanti, J., Mnatskanova, A., Michael, A., Tara, H., Desta, F., Penelope, B., & Cecil, B. (2014). 0037 Associations of stress, anxiety, and resiliency in police work. *Occupational and Environmental Medicine*, 71.
<http://dx.doi.org/10.1136/oemed-2014-102362.8>
- Vrana, S. R. (1992). Psychological Trauma and the Adult Survivor: Theory, Therapy, and Transformation. *Journal of Traumatic Stress*, 5(1), 152–153.
[https://doi:10.1002/jts.2490050118](https://doi.org/10.1002/jts.2490050118)
- Wagnild, G., & Young, H. (1993). Development and psychometric evaluation of the Resilience Scale. *Journal of Nursing Measurement*, 1(2), 165-78.
- Wagnild, G. (2011). *The resilience scale. User's guide for the US English version of the Resilience Scale and the 14-item Resilience Scale.*
- Walker, S. N., Sechrist, K. R., Pender, N. J., & Wagnild, G. (2003). Health Promoting Lifestyle Profile. *Journal of Gerontological Nursing*, 29, 42–49.
- Watson, L., & Andrews, L. (2018). The effect of a Trauma Risk Management (TRM) program on stigma and barriers to help-seeking in the police. *International journal of stress management*, 25(4), 348. [https://doi:10.1037/str0000071](https://doi.org/10.1037/str0000071)

- Wheeler, C., Fisher, A., Jamiel, A., Lynn, T. J., & Hill, W. T. (2021). Stigmatizing attitudes toward police officers seeking psychological services. *Journal of police and criminal psychology*, 36(1), 1-7. <https://doi:10.1007/s11896-018-9293-x>
- White, A. K., Shrader, G., & Chamberlain, J. (2016). Perceptions of LEOs in seeking mental health treatment in a right-to-work state. *Journal of Police and Criminal Psychology*, 31(2), 141-154. <https://doi:10.1007/s11896-015-9175-4>
- Whitt-Woosley, A., & Sprang, G. (2018). Secondary traumatic stress in social science researchers of trauma-exposed populations. *Journal of Aggression, Maltreatment & Trauma*, 27(5), 475-486. <https://doi:10:1080/10926771.2017.1342109>
- Wild, J., El-Salahi, S., & Esposti, M. D. (2020). The effectiveness of interventions aimed at improving well-being and resilience to stress in first responders: A systematic review. *European Psychologist*. <https://doi.org.ezp.waldenulibrary.org/10.1027/1016-9040/a000402>
- Williams, A. M., Helm, H. M., & Clemens, E. V. (2012). The effect of childhood trauma, personal wellness, supervisory working alliance, and organizational factors on vicarious traumatization. *Journal of Mental Health Counseling*, 34(2), 133-153. <https://doi:10.17744/mehc.34.2.j3162k872325h583>
- Wilson, F. (2016). Identifying, preventing, and addressing job burnout and vicarious burnout for social work professionals. *Journal of Evidence-Informed*

Social Work, 13(5), 479-483. [https://doi:](https://doi.org.ezp.waldenulibrary.org/10.1080/23761407.2016.1166856)

[org.ezp.waldenulibrary.org/10.1080/23761407.2016.1166856](https://doi.org.ezp.waldenulibrary.org/10.1080/23761407.2016.1166856)

Wlodyka, A. (2017). *An examination of police stressors and attitudes towards seeking psychological help* (Doctoral dissertation, University of British Columbia). <https://doi:10.14288/1.0340912>

Worden, A. P. (1993). The attitudes of women and men in policing: Testing conventional and contemporary wisdom. *Criminology*, 31(2), 203-241.

World Health Organization. (n.d). *Gender: Definitions*. Copenhagen, Denmark: Author.

Zavala, E. (2017). When the cop is the victim: A test of target congruence theory on intimate partner violence victimization experienced by police officers. *Journal of interpersonal violence*, 0886260517709801. <https://doi:10.1177%2F0886260517709801>

Zeidner, M., Hadar, D., Matthews, G., & Roberts, R. D. (2013). Personal factors related to compassion fatigue in health professionals. *Anxiety, Stress & Coping*, 26(6), 595-609.

Appendix A: Demographic Questionnaire

1) How would you rate your level of workplace stress?

- Low
- Med
- High

2) What is your job title?

- Patrol Officer
- Sargent
- Detective
- Other

3) How many consecutive years of police service?

- 0-5 years
- 6-10 years
- 11-15 years
- 16+ years

4) What is your age?

- 21-25
- 26-30
- 31-35
- 36-40+

5) Gender

- Male

- Female
- Other

6) What is your level of education?

- Academy only
- Associates degree
- Bachelor's degree
- Master's Degree

Appendix B: Permission to Use Instrument (Resilience Scale)

The Resilience Center

gwagnild@resiliencecenter.com <gwagnild@resiliencecenter.com>

Fri 7/30/2021 11:16 AM

To:

3 attachments (4 MB)

Resilience Scale Users Guide 3 33.pdf_protected.pdf; RESILIENCE SCALE.pdf; 2021 July

Dear

Thank you for purchasing a student licensing agreement to use the original RS (25 items) in your graduate research.

The digital User's Guide is attached and is password protected. Your password is:

The authorized RS instrument is attached.

The licensing agreement is also attached.

I wish you the best in your studies. I would love to hear more about the research you plan to do.

Sincerely,

Dr. Gail Wagnild

Gail Wagnild, RN, PhD
The Resilience Center
www.resiliencecenter.com

Resilience Scale (25 items) - Original

Pricing Groups: Student

Your Name:

Are you a student?: Yes

Organization: Walden University

City: Minneapolis

Country: United States

Telephone:

Email: _____

NumberofParticipants: 180

DatesofSurvey: August 2021

Appendix C: Compassion Satisfaction and Compassion Fatigue (PROQOL 5)

When you [help] people you have direct contact with their lives. As you may have found, your compassion for those you [help] can affect you in positive and negative ways. Below are some questions about your experiences, both positive and negative, as a [helper]. Consider each of the following questions about you and your current work situation. Select the number that honestly reflects how frequently you experienced these things in the last 30 days.

**5-point Likert scale. (1=Never, 2=Rarely, 3=Sometimes, 4=Often, 5=Very Often)

- _____ 1. I am happy.
- _____ 2. I am preoccupied with more than one person I [help].
- _____ 3. I get satisfaction from being able to [help] people.
- _____ 4. I feel connected to others.
- _____ 5. I jump or am startled by unexpected sounds.
- _____ 6. I feel invigorated after working with those I [help].
- _____ 7. I find it difficult to separate my personal life from my life as a [helper].
- _____ 8. I am not as productive at work because I am losing sleep over traumatic experiences a person I [help].
- _____ 9. I think that I might have been affected by the traumatic stress of those I [help].
- _____ 10. I feel trapped by my job as a [helper].
- _____ 11. Because of my [helping], I have felt “on edge” about various things.
- _____ 12. I like my work as a [helper].
- _____ 13. I feel depressed because of the traumatic experiences of the people I [help].
- _____ 14. I feel as though I am experiencing the trauma of someone I have [helped].
- _____ 15. I have beliefs that sustain me
- _____ 16. I am pleased with how I can keep up with [helping] techniques and protocols.
- _____ 17. I am the person I always wanted to be.
- _____ 18. My work makes me feel satisfied.
- _____ 19. I feel worn out because of my work as a [helper].
- _____ 20. I have happy thoughts and feelings about those I [help] and how I could help
- _____ 21. I feel overwhelmed because my case [work] load seems endless.
- _____ 22. I believe I can make a difference through my work.
- _____ 23. I avoid certain activities or situations because they remind me of frightening experiences of the people I [help].
- _____ 24. I am proud of what I can do to [help].
- _____ 25. As a result of my [helping], I have intrusive, frightening thoughts.
- _____ 26. I feel “bogged down” by the system.
- _____ 27. I have thoughts that I am a “success” as a [helper].
- _____ 28. I cannot recall important parts of my work with trauma victims.
- _____ 29. I am a very caring person.
- _____ 30. I am happy that I chose to do this work.

Appendix D: Critical Incident Response Service



Critical Incident Response Service

The Westshore Critical Incident Response Service Team consist of volunteers from Cuyahoga, Lorain, and Medina Counties in the state of Ohio. The team assists public safety workers with the stress resulting from a critical incident. We are a member of the Ohio Critical Incident Stress Management Network. The Team is a non-profit organization and a 501c3 charity. Our mission is to assist all emergency service workers and support staff in coping with the impact of a critical incident. The purpose of this assistance is to educate and provide the affected personnel with access to services available to help with the effects of a critical stress incident. This service will lessen the impact of incident stress and accelerate the recovery from a critical incident. A critical incident is an event during which the sights, sounds, and smells are so intense that they cause you to feel a significant increase in stress and stress reaction--immediate or delayed. Examples include the death or severe injury of a co-worker, an officer involved shooting and the death of a child. The Westshore Critical Incident Response Service offers a variety of services:

- Pre-Incident Education,
- On scene or near scene management,

- One-on-One intervention,
- Demobilization,
- Crisis Management Briefing,
- Defusing,
- Critical Incident Stress Debriefing (CISD),
- Family and Spousal Support,
- Community Crisis Response,
- Pastoral Crisis Intervention, we expand our educational message by providing pre-incident training to individual departments and the general public. We continue to get the word out about Critical Incident Stress Management and our team and assist public safety workers who encounter critical incidents in the performance of their duties. While the Team is made up of public safety volunteers we are not affiliated with any public entity. This allows us to ensure impartiality and confidentiality between the team and those we help.