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Risk Factors and Precursors to Police Suicide

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Risk Factors and Precursors to Police Suicide


by
Matthew J. Carpenter

An Applied Dissertation Submitted to the
Abraham S. Fischler College of Education
and School of Criminal Justice in Partial
Fulfillment of the Requirements for the
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Approval Page

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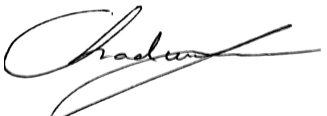
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Abstract

Risk Factors and Precursors to Police Suicide. Matthew J Carpenter, 2021, Applied Dissertation, Nova Southeastern University, Abraham S. Fischler College of Education, School of Criminal Justice. Keywords: Suicide, Suicidal Ideation, Police, Officer Wellness.

Police suicide has consistently remained a more likely cause of death for police officers than being killed in the line of duty for the past several years. Understanding the risk factors and precursors associated with suicide is crucial to changing this anomalousness. Prevention, early intervention, treatment, support, and reducing stigma, may help lower the number of police officers committing suicide.

Several research studies have found the rate of suicide for police officers to be double that of the general population (Chopko, Palmieri & Facemire, 2013; Violanti, 2010; Lewis, 2014; Charbonneau, 2000). The day-to-day job of policing may be stressful and traumatic, but it is important to remember that police officers must pass physical, medical, and psychological health exams showing them to be in excellent health prior to being hired (Chae & Boyle, 2013).

Mental health concerns such as depression, Post-Traumatic Stress Disorder (PTSD), and co-occurrence disorders such as alcohol abuse are significantly more prevalent in police officers (Chae & Boyle, 2013; Violanti et al., 2008; Basinska & Wiciak, 2012; Bishopp & Boots, 2014). Chae and Boyle's (2013) meta-analysis concluded five prominent factors of police work that may affect suicidal ideation. Those factors are organizational stress, critical incident trauma, atypical work hours, relationship problems, and alcohol abuse. Due to atypical work hours being a job requirement known prior to hire, this factor will not be measured.

The purpose of this study is to identify common risk factors and behavioral changes of police officers in order to assist with early prevention and intervention of suicide. Through the use of five validated instruments measuring organizational stress, critical incident trauma, relationship problems, and alcohol abuse, these variables will be compared with suicidal ideation in officers at a mid-sized police department in the Northeast region of the United States.

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Chapter 1: Introduction

Nature of the Research Problem

Police suicide has consistently remained a more likely cause of death for police officers than being killed in the line of duty for the past several years. Understanding the risk factors associated with suicide is crucial to changing this anomalousness. Prevention, early intervention, treatment, support, and reducing stigma, may help lower the number of police officers committing suicide (Arble et al., 2016; Patterson, Whittle & Kemp, 2014; Martin & Mishara, 2012).

Suicide has become an increasing problem on a global scale. The World Health Organization (WHO) states that over the last 50 years suicide rates have increased by over 60 percent (WHO, 2009). Several research studies have found the rate of suicide for police officers to be nearly double that of the general population (Chopko, Palmieri & Facemire, 2013; Violanti, 2010; Lewis, 2014; Charbonneau, 2000). Violanti (2010), concluded that police suicide had accounted for 13.8 percent of police deaths compared to an average rate of 3.8 percent for all other jobs. While police officers must pass physical, medical, and psychological health exams showing them to be in excellent health prior to being hired (Chae & Boyle, 2013), the day-to-day job of policing may be stressful and traumatic.

Violanti (2004), determined that trauma exposure intervention and suicide prevention training act as catalysts for therapy, thereby reducing suicidal ideation and substance abuse in police officers (p. 281). Prevention and early intervention would not only reduce the number of suicides but would also assist with reducing other pre-cursor symptoms such as alcohol abuse, anger and relationship issues, and attendance. The purpose of this study is to identify common

risk factors and behavioral changes of police officers in order to assist with early prevention and intervention of suicide.

Background & Significance

A recent study conducted by the World Health Organization (WHO) has estimated that approximately one million people commit suicide each and every year (Robinson, Segal & Smith, 2014). The National Institute of Mental Health (NIMH) found suicide to be the tenth leading cause of death in the United States and estimated that there are at least 11 suicide attempts for every suicide completed (NIMH, 2014). Many studies have shown that police officers take their own lives at twice the rate of those killed in the line of duty (Lewis, 2014; Violanti, 2010; Charbonneau, 2000). Violanti (2012), found that in a study of 298 police departments, some smaller departments saw suicide rates as high as 44 per 100,000, which is much higher than the suicide rate of 14 per 100,000 in the general population (ASFP, n.d.). The increased number of suicides in police officers can be a combination of several factors. Such as: Depressive Disorders, Post-Traumatic Stress Disorder (PTSD), as well as co-occurring disorders such as Substance Abuse Disorders. The symptoms of these disorders can further exacerbate feelings of suicidal ideation. Looking at other factors, Chae and Boyle (2013) concluded there are five prominent factors surrounding police suicide. These factors are: organizational stress; critical incident trauma; shift work/atypical work hours; relationship problems; and alcohol use/abuse (Chae & Boyle, 2013). Each of these factors will be defined below.

Organizational stress can be a result of the police subculture of excessive formality and routine (Chae & Boyle, 2013). The paramilitary structure of police departments can result in micro-managing of officers and seemingly arbitrary judgments by supervisors (Chae & Boyle, 2013). The researcher also found that the paramilitary culture can also cause the socialization of

police officers to believe that they are superhuman or invincible, causing officers to employ avoidance-type coping methods to stress, disregarding information that conflicts with their police role and not believing that these early warning signs of a mental health problem, need to be attended to.

Critical incident trauma is a result of some form of stress to a critical incident. Police are first responders and are generally the first on scene in situations that have resulted in serious injury and/or death. Motor vehicle accidents, assaults, homicides, as well as natural cause deaths, and suicide are commonplace situations for a police officer. These events can take a toll on the individual and may result in either Acute Stress Disorder and/or PTSD that is undiagnosed, and often the officer is not seeking help for the symptoms they experience. This lack of treatment may lead to self-medication through alcohol abuse, and/or result in—or exacerbate—relationship and job problems, thereby creating a snowball effect for the officer, building upon itself and resulting in suicidal ideations.

Shift work and/or atypical work hours that many police officers are obligated to keep can have both emotional and physiological consequences. Vila (2009) conducted research regarding sleep deprivation on police officers and concluded that officers that have not slept in 24 hours exhibited cognitive impairment equivalent to an individual with a blood alcohol content of 0.10, which exceeds the legal limit for driving while intoxicated in all 50 states in the US. Other studies have shown that there is a positive relationship between sleep deprivation and suicidal ideations (Violanti et al., 2008; Basinska & Wiciak, 2012; Vuorensyrja & Malkia, 2010). Violanti et al. (2008), studied the relationship of shift work, traumatic stress, depression and suicidal ideation and found that approximately 25 percent had suicidal ideations compared to

13.5 percent of the general population. The same study concluded that officers that worked the overnight shifts saw a substantial increase in suicidal ideations.

Relationship problems are common amongst all police officers. One study has shown that relationships in which at least one partner was a police officer, approximately 28 percent of these couples reported domestic violence (Zavala, 2013). That same study determined that as the hours worked increased, so did the frequency of domestic violence. Relationship problems add to the cycle and exacerbates other factors (Chopko et al., 2013), all of which increase the likelihood of suicidal ideations.

Alcohol use has become a part of the police subculture to ameliorate some of the stresses brought on by the job. Unfortunately, this can lead to alcohol abuse that can increase levels of depression and conditions such as PTSD to be dealt with, through this maladaptive coping style, leading to an increase in suicidal ideation. Bishopp and Boots (2014), found that for every one-unit increase—meaning one beer, one glass of wine, or one shot of alcohol—in weekly alcohol consumption, the odds of suicidal ideation for police officers increases by 25 percent (p. 543). That same study determined that alcohol use amongst police officers suffering from depression saw approximately a 200 percent increase in suicidal ideations; those with anger saw increases of 123 percent; and those feeling burnout had 117 percent increase (Bishopp & Boots, 2014, p. 544). The police subculture promoting alcohol consumption, especially as a way to cope with stress, serves to increase the risk of suicidal ideation.

Another factor—or set of factors—that can affect the mental health of Police Officers are traumatic experiences that occurred during childhood. Research titled the *Adverse Childhood Experiences Study* (ACE) was based on a survey of ten different traumatic experiences during childhood. The study sample consisted of 13,494 respondents that were all members of Kaiser

Health plans in San Diego, CA in the late 1990's (Felitti et al., 1998). The results of these surveys were then correlated to the respondent's medical history. The ACE study concluded that a person with exposures to only two of any of the ten traumatic experiences during childhood were three times more likely to attempt suicide and four times more likely to be an alcoholic than the individual with zero; at exposures of four the likelihood jumped to 12 times and seven times respectively (Felitti et al., 1998). Felitti et al. (1998), also found that 52 percent of respondents experienced at least one traumatic experience during childhood and over six percent reported to have experienced four or more. Since 1998, over 70 papers have been published regarding the ACEs study; and thirty-six States and Washington, D.C. have replicated the ACEs study (www.acestoohigh.com).

Recognition of common risk factors and changes in behavior that increase the likelihood of suicidal ideation for police officers can be used for program implementation for suicide prevention and early intervention. Studies have been completed that have demonstrated success in lowering the number of annual suicides through program implementation. Martin and Mishara (2012) studied the impact of a department implemented suicide prevention program to 4,178 members of the Montreal Police. Over a 12-year period the Montreal Police have seen a decrease by 79 percent in annual police officer suicides while other departments in Quebec have seen an increase of 11 percent (Martin & Mishara, 2012). Stress management training has also shown to help in many other areas lessening absenteeism, employee turnover, and workplace violence amongst other things (Adkins, 2014).

One goal of this study is to determine what factor—or factors—need greater focus and effort by Police Administrators to improve the mental health of Police Officers and decrease the prevalence of Police Officer suicidal ideation. In 2011, the President of the International

Association of Chiefs of Police (IACP), Walter McNeil, pledged that police suicide prevention would be a major initiative of his presidency (Steckler, 2013). Although many administrators acknowledge the need for suicide prevention of police officers not enough has been done to address the issue.

Barriers & Issues

This research involves surveying the approximately 701 sworn members of a mid-sized police department in New York State. Some potential barriers or issues regarding this might be participation and objectivity. The topic of police suicide can be a sensitive one. Research has shown that some officers feel that when a fellow officer dies in the line of duty “the organization pulls together” and that there is a feeling of solidarity, yet when a police suicide occurs the organization starts to “point fingers” and that there is a feeling of guilt (Parks, 2013). Based upon the police subculture that relies upon being strong at all costs, participation or honest and objective responses may be limited, especially if the officer feels this information might be used against them. In an attempt to limit these barriers, this study involves the recognition of risk factors and behavior changes of police officers in crisis, as opposed to personal views or feelings towards suicide itself. Additionally, the information collected does not identify a person. The responses are kept confidential, and it would not be possible to identify an officer specifically.

Purpose Statement

The purpose of this study is to identify common risk factors and behavior changes in police officers that increase the likelihood of suicidal ideation. Police suicide is a major issue in policing, accounting for more than twice the number of annual deaths of officers killed in the line of duty (Violanti et al., 2010). Through early detection and treatment of risk factors and negative changes in behavior, suicides of police officers can be decreased.

Definition of Terms

Suicidal ideation – Thinking about or planning suicide

Chapter 2: Literature Review

Suicide is an increasing problem that is occurring on a global scale. According to the Center for Disease Control and Prevention (CDC), the suicide rate in the United States has increased approximately 30% between 1999 and 2016 (Center for Disease Control, 2018). This same report states that approximately 45,000 people committed suicide in the United States in 2016, and 54% of those people had no history of mental illness. The World Health Organization (WHO) states that over the past 50 years there has been an increase of over 60% in the suicide rates globally (WHO, 2009).

Many research studies have found that the suicide rate for police officers to be almost double that of the general population (Chopko, Pamieri, & Facemire, 2013; Violanti, 2010; Lewis, 2014; Charbonneau, 2000). Violanti (2010), determined that police suicide accounts for approximately 13.8% of deaths compared to an average rate of 3% for all other jobs. Policing has many factors that can cause and/or exacerbate stress, trauma, depression, and PTSD, amongst others. As cited in Lewis (2014), one study of the New York City Police Department (NYPD) concluded that NYPD officers suicide rate was 29 per every 100,000, yet the general population of New York City had a suicide rate of 12 per 100,000. However, as noted by Chopko, Palmieri & Facemire (2013), police officers are subject to a battery of tests prior to employment to make sure that they are in excellent health which includes physical, medical, and psychological health exams, to demonstrate their being of excellent health. These requirements for employment would leave one to assume that this group would be less representative of suicide than the general population.

Hickman et al. (2011) defines stress as “a tension that alters homeostasis in the human body, manifests itself in a wide variety of physiological indicators” (p. 232). The physiological

effects of stress or tensions generally involves discussing the work of Selye (1956) and his development of the general adaptation syndrome (GAS). GAS can occur due to any tension that alters homeostasis, and GAS has three stages which can occur: the acute alarm stage, the chronic resistance stage, and the chronic exhaustion stage (Selye, 1956). Some researchers, such as Hickman et al. (2011), have developed this further to view stress as a combination of tension and the individual's reactivity to that tension. These tensions occur with police officers in a variety of ways to include both work related stressors and personal life related stressors.

Officer Work Related Stressors

Chae and Boyle (2013) designed a research study to explore both the risk and protective factors that are associated with suicidal ideations amongst police officers. This study was comprised of a meta-analysis of several studies involving police stress, police suicide, police trauma, as well as the risk and protective factors of police stress. As a result, five prominent aspects of police work—organizational stress, critical incident trauma, shift work/atypical hours, relationship problems, and alcohol abuse—were associated with increased risk of suicidal ideations (Chae & Boyle, 2013). These aspects can have a synergistic effect on each other or—in other words—cause a snowball effect in that one aspect can impact or cause one or more additional aspects or stressors to increase.

Organizational Stress

The first aspect determined through this study is organizational stress. According to Chae and Boyle (2013), organizational stress can be the result of the police subculture comprised of excessive formality and routine. As a result of police departments' paramilitary structure, micro-managing of police officers is common, as well as seemingly arbitrary judgments made by police supervisors (Chae & Boyle, 2013). This paramilitary structure and design of police departments

may also result in the socialization of police officers to avoid admitting perceived weaknesses and employ avoidance-type coping methods to disregard symptoms, and other information that may be in conflict with their police role. Much of this particular form of stress is considered cumulative and builds over time. Violanti, Andrew, Mnatsakanova, Hartley, Fekedulegn & Burchfiel (2016), study of 710 police officers from Buffalo, NY found a significant positive association between the lack of support from police department administration and levels of hopelessness in police officers. Of those officers studied, 14% scored probable to have undiagnosed PTSD (Violanti et al., 2016).

Tyagi and Dhar (2014), conducted a survey of 444 police officers from eight different stations in India. They concluded that organizational politics had a positive and significant relationship with job stress (Tyagi & Dhar, 2014). This study concluded that the police department needs to strengthen their support systems and that the social support system for police officers is weak as a result of diminished time spent with officer's family and friends (Tyagi & Dhar, 2014). Tyagi and Dhar (2014), also determined that the police officer's health also was found to have a significant and negative relationship with stress.

McCarty and Skogan (2012), found that many police officers can suffer from burnout as a result of their own difficulties balancing work and their personal life. Burnout, as defined by McCarty and Skogan (2012), is a prolonged response to chronic stressors and tension that can affect the officer's health negatively, decrease their motivation level, as well as lower overall job performance. As stated in this study, burnout can be multifaceted but includes three core components: emotional exhaustion, depersonalization, and personal accomplishment (McCarty & Skogan, 2012). This study also concluded that lack of support that officers received from

coworkers and supervisors, the perceived lack of fairness of administrative policies, and a variety of personal factors increased the likelihood of burnout (McCarty & Skogan, 2012).

The sample of their study included 486 civilian law enforcement personnel and 2,078 police officers from 12 different agencies across the United States. Police officers were found to perceive their agency's personnel policies in regard to job assignments and discipline were unfair, as opposed to the civilian employees. Another finding of the McCarty and Skogan (2012) study, was that civilian employees expressed a significantly lower feeling of work-life conflict as well as a significantly lower perception of unfairness by the agency.

Lambert et al. (2017), concluded that burnout amongst police officers not only can result in increased absenteeism, health problems, increased number of citizen complaints, increased aggression levels, and greater use of force, but also increased alcohol use, strained relationships with family and friends, increased risk of depression, reduced feelings of life satisfaction, and increased suicidal ideations (p. 86). Their survey of 827 police officers found that job stress had a significant and positive relationship with burnout and job satisfaction had a significant and negative relationship in regard to burnout (Lambert et al., 2017).

McCreary, Fong and Groll (2017), surveyed 2,840 members of the Ontario Province Police (OPP). They concluded that the top five-ranking operational stressors were fatigue, finding time to stay in good physical condition, shift work, and not having enough time available to spend with family and friends (McCreary et al., 2017). The top five-ranking organizational issues were bureaucratic red tape, staff shortages, inconsistent leadership, perception that different rules applied to different members, and a feeling of always having to prove yourself to the organization (McCreary et al., 2017). McCreary et al. (2017), also concluded that those police officers that reported high levels of stress were at significantly increased risk for burnout,

and in turn an increased risk for adverse physical and mental health concerns as well as negative behavioral issues. McCarty and Skogan's (2012), study also found that perceptions of danger had a positively and significant impact on burnout.

Critical Incident Trauma

The second prominent factor identified by Chae and Boyle (2013), is critical incident trauma. This factor is relatively self-explanatory. Police officers respond to, and are generally the first people on scene, to incidents that result in serious injury and/or death. These incidents can include natural cause death and suicides, to motor vehicle accidents, assaults, homicides, and even natural disasters. The effects of these incidents and/or the culmination of these types of incidents over time can take a toll on a police officer both emotionally and physically. Untreated, these effects can result in, amongst other things, PTSD and Depressive Disorders. The police subculture can contribute to the officer(s) not seeking assistance and lead to self-medication which in policing frequently involves alcohol use and abuse (Bishopp & Boots, 2014; Menard & Arter, 2013; Menard & Arter, 2014; Ramchand et al., 2018).

Menard et al. (2015), states that police subculture shuns showing perceived weakness, which is a barrier to seeking psychological treatment. This same subculture may in fact encourage avoidant coping measures such as alcohol use for officers affected by critical incidents and work-related trauma. Menard et al. (2015), study consisted of 1,286 police officers from 13 different countries. Police officers from the United States were determined to have the highest number of critical incidents of the entire sample (Menard et al., 2015). The American police officers were found to have the highest percentage of former military, were the oldest, had the most amount of time as police officers, and came from more populated areas (Menard et al., 2015). Menard et al. (2015), also concluded in this study was that the longer the amount of time

in policing was positively related to the likelihood of PTSD. The main reasons that officers felt that they could not use available resources that were available to them include: lack of confidentiality or anonymity, stigma, distrust of the department, and ineffective/inadequate services (Menard et al., 2015).

Fleischmann et al. (2016), conducted a study of 575 police officers in the state of Georgia, to examine police officers' perception of, and responses to, both stressful and traumatic events. The data collected from this study found that 51.1% of those surveyed reported having personally known a police officer that was changed after experiencing a traumatic event on the job (Fleischmann et al., 2016). Additionally, 46% reported knowing a police officer that had committed suicide, 74.5% reporting to have experienced a traumatic event personally on the job, and 10.5% reported having suicidal ideations (Fleischmann et al., 2016). Clark-Miller and Brady (2012) found that more religious police officers experience the greatest amount of emotional stress when dealing with critical incidents. Their study of 811 police officers found that more religious police officers experience the effects of critical stress more acutely (Clark-Miller & Brady, 2012, p. 31).

Shift Work/Atypical Hours

The third prominent factor of policing that Chae and Boyle (2013), concluded was increase in the risk of police suicidal ideations was shift work and/or atypical work hours that police officers are subjected to comply with. These frequent changes in work hours can affect sleep patterns and cause negative results in both emotional and physiological areas. Vila (2009) studied the effects of sleep deprivation on police officers and found that police officers that have not slept in 24 hours exhibited the same cognitive impairment equivalent to an individual with a blood alcohol content of 0.10%, which exceeds the legal limit for driving while intoxicated in all

50 states. Another study in 2008 by Violanti et al., regarding shift work, traumatic stress, depression, and suicidal ideation amongst police officers, concluded that 25% of those police officers studied experienced suicidal ideations compared to 13.5% of the general population. That same study also found that police officers that worked the midnight shift saw a substantial increase in suicidal ideations of those officers on day and afternoon shifts. Chopko et al. (2013), performed a multiple regression analysis of 193 police officers from the Midwest and found, amongst other findings, a positive correlation between work-related but non-traumatic stress and suicidal ideations.

Gerber, Hartmann, Brand, Holsboer-Trachsler and Puhse (2010), conducted a cross-sectional survey of 460 police officers to look at shift work and its association with stress, sleep and health. They found that shift work was associated with increased social stress, job dissatisfaction, and sleep complaints. Gerber et al. (2010), also found that police shift workers had more sleep complaints and lower sleep-quality than those that were not shift workers. These same individuals rated their health less positively and reported more somatic complaints (Gerber et al., 2010).

Basinsk and Wiciak (2012), evaluated 89 police officers and 85 firefighters in regard to fatigue and burnout regarding shiftwork. They found that the police officers were more tired of their work, more exhausted, and more disengaged than the firefighters. Police officers mean scores of fatigue, exhaustion, and disengagement were 16.75, 19.40, and 19.26 respectively (Basinsk & Wiciak, 2012). Firefighters mean scores of fatigue, exhaustion, and disengagement were 9.99, 14.35, and 15.35 respectively (Basinsk & Wiciak, 2012). Work related stress that is untreated can carry over into other aspects of a police officer's life causing problems in areas such as personal relationships.

Officer Personal Life Related Stressors

Relationship Problems. Relationship problems are unfortunately commonplace amongst police officers. This is the fourth prominent factor for increased suicidal ideations as listed by Chae and Boyle (2013). As cited in Chopko et al. (2013), several studies have concluded that police officers experience much higher rates of divorce than the general population. Although Aamodt's (2008) research concluded these rates to be more similar to one another. Klinoff, Van Hasselt, and Black's (2014), study found that approximately 40% to 50% of police families have experienced intimate partner violence (IPV). While the general population shows rates of 35.6% of women and 28.5% of men have experienced IPV (Klinoff et al., 2014). Chae and Boyle (2013), concluded that it was common for police officers to allow work stress to permeate into their personal lives and relationships. Their study has shown that 60% of the 479 spouses surveyed were verbally or emotionally abused (Chae & Boyle, 2013).

Zavala (2013) used a survey of 860 police officers regarding child maltreatment and family violence amongst police officers. 75 officers reported being physical with their current spouse, 77 officers reported being physical with their children, and 61 officers reported yelling or shouting toward their family members (Zavala, 2013). This same study concluded that police officers who reported that their parents were physical with them were four times more likely to be physical with their own children.

Police officers are obligated to take control of situations in their work life, as a result the use of authoritative interrogation tactics and/or aggression to assert superiority may carry over into their personal lives and relationships (Karaffa et al., 2015). These tactics limit the officer's empathy and ability to be positive listeners and the stress and trauma of their work leads to emotional detachment. This can also occur in the officer's personal life adding to or creating

relationship problems where communication is essential. Karaffa et al. (2015), study consisted of 82 police officers and 89 spouses of police officers from the Dallas-Fort Worth area. Of this sample, 36% of spouses indicated a high level of conflict over finances and 24% of spouses reported high levels of conflict regarding emotional intimacy (Karaffa et al., 2015). The study found that 53.9% of the spouses reported the most concern for the officers missing important family events and 49.5% felt their officer spouse gave most of their energy to the job (Karaffa et al., 2015). Over 65% of the spouses also felt that the public has higher demands for the police officers and their families than any other profession (Karaffa et al., 2015, p. 126). Tuttle, Giano, and Merten (2018), surveyed 1,180 married police officers. They concluded that both career demands, and social and emotional spillover were significant and negatively related to marital functioning.

Occasionally, police officers will develop new personality characteristics after starting their law enforcement careers which may contribute to relationship problems. In particular marital problems can occur if the officer was married prior to their career (Gould, 2000). A positive correlation has also been found between police officers with relationship problems, such as impending divorce and suicidal ideations (Klinoff et al., 2014; Violanti et al., 2012). Tsai, Nolasco & Vaughn (2018), surveyed 594 police officers from 21 different agencies in New York City. This study concluded that the educational achievement of police officers did not have a direct impact on police officer's total job stress, but that educational achievement did have a significant negative relationship in regard to counseling support. This finding indicates that the higher the educational achievement attained by officers means the lower their perceptions of counseling support making them less likely to seek or accept therapy (Tsai, Nolasco & Vaughn,

2018). Tsai, Nolasco and Vaughn (2018), also concluded that as rank increased total job stress increased, however negative work environment decreased.

Relationship problems exacerbate other factors that police officers are suffering from such as undiagnosed Depressive Disorders and PTSD. As stated previously, due to the police subculture, police officers often resort to avoidance-type coping methods. The most common of which are alcohol use and abuse.

Alcohol Use/Abuse. The police subculture has permitted—and arguably promoted—the use of alcohol to mediate some of the stresses brought on by the job. Unfortunately, for those police officers that are struggling with depression and PTSD, alcohol can significantly increase the likelihood of suicidal ideations. Oehme, Donnelly and Martin (2012), surveyed 853 police officers in Florida regarding alcohol use, domestic violence, and PTSD. Of the sample, 15% indicated that they were hazardous drinkers and 8.2% reported habits that indicated they may be dependent on alcohol amounting to 23.2% reporting problematic drinking habits (Oehme, Donnelly & Martin, 2012). According to the National Institute of Health (2004), from a national study consisting of 43,093 respondents an estimated 8.46% of the general population meets the same criteria. Oehme, Donnelly and Martin (2012), also found that 28.6% reported having been physically violent with an intimate partner or family member and 17.7% reported PTSD symptoms above the clinical cutoff, general population is estimated at 3.5% having PTSD symptoms above this level (Oehme, Donnelly & Martin, 2012, p. 423). Oehme, Donnelly and Martin's (2012), study also concluded that those police officers with PTSD were four times more likely to report using physical violence; hazardous drinkers were four times more likely to report using physical violence; and dependent drinkers were eight times more likely to report being physically violent with an intimate partner.

Bishopp and Boots (2014), concluded from their study that for every one-unit of increase in weekly alcohol consumption, a police officer's chances of having suicidal ideations increases by 25% (p. 543). According to that same study, increased alcohol consumption for those police officers with depression showed a 200% increase in suicidal ideations; those officers with feelings of anger saw an increase of 123%; and those officers with feelings of burnout experienced a 117% increase of suicidal ideations (Bishopp & Boots, 2014, p. 544).

Menard and Arter (2014), conducted an online survey of police organizations in the six most populous states which included California, Texas, New York, Florida, Illinois, and Pennsylvania. From a sample size of 1,453 police officers, Menard and Arter (2014), concluded that critical incidents (traumatic work experiences) and alcohol overuse/abuse were significantly and positively associated with PTSD. Of that sample 13.6% of male police officers and 11.6% of female officers demonstrated what was considered problematic drinking based upon the AUDIT assessment tool (Menard & Arter, 2014). In a separate study, Menard and Arter (2013), conducted a survey from a sample of 750 police officers from the same geographic locations and determined similar results regarding the significantly, positively related use of alcohol and occurrence of PTSD symptoms. In that study, Menard and Arter (2013), found that PTSD was also significantly, positively related to number of critical incidents (traumatic work experiences), negative coping skills/methods, and social stressors. One of the most common crimes committed by police officers are those involving alcohol, such as bar fights and driving while intoxicated (Zavala & Kurtz, 2017). Zavala and Kurtz (2017), survey of 1,018 police officers indicated that police officers with higher levels of critical incident stressors were more likely to have lower levels of self-control (p. 513). White officers were found to be 112% more likely than non-White officers to report using alcohol at problematic levels. Officers with higher levels of burnout were

more likely to abuse alcohol (Zavala & Kurtz, 2017). All of these factors combined create a “perfect storm” that dramatically increase a police officer’s likelihood for suicidal ideations and the potential for suicide.

Traumatic Exposure in Childhood

Adverse childhood experiences can increase an individual’s risk factor for alcohol abuse and suicide (Felitti et al, 1998). As previously stated, alcohol abuse by a police officer with mental health issues such as depression and/or PTSD can significantly increase suicidal ideation. In a recent personal interview of Dr. Olivia Johnson from the Institute for Intergovernmental Research, Dr. Johnson stated that in her research, she has found that many officers that have completed suicide have also experienced early childhood traumatic events (Johnson, 2019). Dr. Johnson is conducting research in which she performs psychological autopsies of police officers who have completed suicide. The ACEs study that was first published in 1998—and has since been replicated in over 70 additional research studies—concluded that an individual with an ACE score—having experienced any combination of ten childhood traumatic experiences—of two was four-times more likely to have alcoholism and three-times more likely to attempt suicide than an individual with an ACE score of zero (Felitti et al., 1998). The likelihood of alcohol abuse and suicide increase to seven-times and 12-times respectively with an ACE score of four (Felitti et al., 1998).

Police Officer Suicide Prevention

Unfortunately, not all police departments provide training or treatment regarding these matters. Patterson, Whittle and Kemp (2014) conducted research regarding a common police department technique called Critical Incident Stress Debriefing (CISD). Their study concluded that those individuals that received emotion-focused debriefing reported more intrusive thoughts

regarding the incident than those without any debriefing, and those that received fact-focused debriefing also reported more intrusive thoughts than those not debriefed (Patterson, Whittle & Kemp, 2014). Fact-focused debriefing also demonstrated detrimental effects on eyewitness memory (Patterson, Whittle & Kemp, 2014).

Through the use of proper training for all members and supervisors, early intervention can be achieved to recognize and provide treatment for police officers suffering from these symptoms prior to their suicide. Research studies have been conducted that demonstrate success in decreasing the number of annual police suicides through suicide prevention and education programs. Martin and Mishara (2012), conducted a study using a sample of 4,178 members of the Montreal Police that had taken part in a departmentally implemented suicide prevention program. This study was conducted over a 12-year period and found a 79% decrease in annual police suicides for the Montreal Police while all other departments in Quebec saw an average 11% increase during the same time period (Martin & Mishara, 2012).

Arble et al. (2016), conducted a study regarding the refinement of an imagery-based program designed to improve coping skills and trauma prevention in urban police officers. This program consisted of nine scenarios specifically designed to represent common traumatic incidents that police officers frequently are exposed to. Thirty-two officers were first surveyed regarding: social support, PTSD symptoms, anxiety and depression symptoms, sleep disruption, and alcohol use. After being put through the scenarios and trained on positive coping methods the officers were asked to rate the program, to which it was well received. One year later a follow up was completed and determined that both positive reframing and humor had increased significantly, and self-blame decreased by a medium effect size (Arble et al., 2016).

According to Adkins (2014), stress management training has also shown to help in many other areas such as: lowered rates of absenteeism, less employee turnover, and workplace violence amongst other things. Ramchand et al. (2018) interviewed 110 police agencies across the country regarding their strategies for preventing police officer suicide. Those interviewed were categorized from minimal number of services provided to the highest number of services provided. Four categories were created, 11 agencies were in the lowest and seven were in the highest. Of the 110 departments interviewed 37 provided a basic level of services that were available to officers after a critical incident. And the remaining 55 provided peer support, substance abuse programs, and had screening procedures for high-risk officers (Ramchand et al., 2018). As such, nearly half of the agencies interviewed provided little to no assistance to officers and what was offered was solely after the fact. Of the higher tier categories those typically involve more urban-area, larger city police departments. According to Violanti et al. (2012), smaller police departments from smaller cities, sub-urban areas, and even rural areas, have demonstrated to have higher rates of PTSD and suicide.

Psychological Fitness-for-Duty Evaluations

The Psychological Fitness-for-Duty Evaluation (FFDE) is another tool—or means—for police agencies to identify at-risk police officers. FFDEs have been used by police psychologists since the mid-1980s (Weiss & Inwald, 2018). The FFDE consists of a psychological evaluation of the individual police officer and a report that is provided to the police agency regarding the conclusions of the psychologist or psychiatrist from that evaluation.

The first proposed guidelines for FFDEs were published in 1990; later to be updated and accepted by the International Association of Chiefs of Police (IACP) in 2013 (Inwald, 1990; IACP, 2013). These guidelines established recommended rules and regulations for police

agencies to use to ensure best practices are followed when referring, administering, and utilizing the police psychologists' conclusion to balance the needs of the police agency and the individual police officer. These guidelines also help to ensure that the FFDEs are properly administered by licensed psychologists or psychiatrists with the necessary education and experience; not only to competently administer the evaluations but to be competent in police psychology and the evaluation of law enforcement personnel (IACP, 2013).

The findings of the FFDE can be presently fit for duty, or unfit for unrestricted duty (Miller, 2007; IACP, 2013). Recommendations regarding restrictions or any accommodations that may be reasonable are left to the police agency to determine, as opposed to be made by the examiner his or herself (IACP, 2013). FFDEs should be conducted fairly and used properly by police agencies as an additional management tool to help ensure the mental well-being and safety of its police officers (Miller, 2007). If the FFDE is conducted unfairly—or used as a disciplinary tool and/or purely as a means for termination—police agencies will continue to increase the stigma associated with mental health concerns. As well as increase costs and decrease its workforce by losing trained and experienced officers that could potentially be more valuable to the police agency if provided with the necessary time and assistance required to heal.

Conclusion

The leading cause for police officer deaths has been police suicide for the past several years. Suicide is a not a problem specific to police, but also for the general population; and suicide has reached epidemic status both nationally and globally. With only a couple of exceptions, the vast majority of research has shown that the suicide rate for police officers is significantly higher than the suicide rates of the general population, with several studies finding police officer suicide rates double (Chopko et al., 2013; Violanti et al., 2010; Lewis, 2014;

Charbonneau, 2000). With police officers being comprised of individuals that have passed extensive physical, medical, and psychological testing stressors, psychosocial stressors in policing likely plays a significant role regarding the increased amount of depression, PTSD, relationship problems, alcohol use and abuse that police officers suffer from. These factors lead to increased rates of suicide for police officers.

Work related stressors such as the paramilitary design of police departments and the police subculture, result in officers concealing their symptoms and using avoidance-type coping methods. Exposure to traumatic events, as well as irregular work hours and lack of sleep also exacerbate these symptoms that can lead to suicide. Added to personal life stressors such as personal relationship problems and divorce combined with subculture promoted use of alcohol that magnifies these symptoms significantly increasing suicidal ideations and ultimately suicide.

Research has shown that proactive and properly designed programs within police departments can decrease the number of police suicides. Prevention, early intervention, and treatment, along with a change in police subculture to seek help instead of fear being seen as weak, can prevent suicides and help officers stop the snowball effect of these issues. Identifying common risk factors and behavioral changes of police officers in order to assist with early prevention and intervention is one way to tackle the challenge of addressing the epidemic of police suicide.

Research Questions

RQ1: What is the frequency and variation on ACE scores for police officers that have experienced suicidal ideation?

RQ2: What is the frequency and variation of critical incident trauma for police officers that have experienced suicidal ideation?

RQ3: What is the frequency and variation of organizational stress level for police officers that have experienced suicidal ideation?

RQ4: Is alcohol use different between the sample population of police officers and the general population?

Chapter 3: Methodology

Participants

The participants in this study were selected using simple random sampling of the complete roster of approximately 701 sworn police officers from an urban police department in New York state. This population of police officers is convenient and available to the researcher. The researcher submitted an internal correspondence to the chief of the department—via the chain of command—describing the proposed study and requested permission to survey said population. This correspondence was approved at all levels to include the chief. The research subjects were recruited through the use of departmental email, as well as through department Information Update postings that are distributed to all members on a daily basis. According to www.fluidsurveys.com, a sample size of 207 will be needed in order to obtain a 95% confidence level with a 5% or less margin of error. As such, a random string of numbers will be generated through www.random.org between one and 701. Two groups totaling 449, received email and consent form approved by the IRB.

Instruments

The data was collected through the administering of five instruments. These instruments have been used in previous research studies and are considered both valid and reliable to measure the area for which they will be used. All necessary licensing and copyrights have been obtained for each and every instrument used in this research study.

The first of which was the Adverse Childhood Experience (ACE) study questionnaire consisting of ten, yes-or-no questions (Felitti et al., 1998). The ACE study questionnaire was used to determine subjects' early childhood exposure to traumatic experiences. Five of the questions are based on the individual involving physical, verbal, and sexual abuse, as well as

physical and emotional neglect. Questions regarding being insulted, humiliated, or intimidated by a parent or other adult in the household. As well as questions regarding being pushed, grabbed, or slapped, and/or having marks or injuries as a result. Sexual abuse questions, along with physical and emotional neglect questions—regarding adequate food to eat and familial support and love—complete the first section.

The second set of five questions relates to the individual's family members involving substance abuse, incarceration, and mental illness, as well as separation from a parent through divorce, death, or abandonment. These questions involve divorce or separation on the individual's parents, as well as any incarceration of either or both. Also, questions about a parent or adult in the household being a victim of domestic violence, and/or having substance abuse issues; along with any household member suffering from mental illness—or having attempted suicide—completes the second section of questions in the ACE study.

The effects of critical incident traumatic exposure were also studied. Data was collected to measure the subjects' level of post-traumatic stress through the use of the PCL-5. This instrument consists of 20 questions based on a Likert scale of 0 to 4. The corresponding scale consists of not at all, a little bit, moderately, quite a bit, and extremely. These questions consist of occurrences of repeated memories and/or dreams regarding a stressful experience. Frequency of feeling as if the event is actually happening again or becoming very upset when something reminds the individual of the stressful experience. As well as the individual's avoidance of memories or reminders of the stressful event. These questions also inquire about feelings such as self-blame, or loss of interest in activities, or increased risk-taking. Hypervigilance, concentration problems, sleep issues, and angry outbursts are also amongst questions asked of

the individual by the PCL-5. Wortman et al. (2016) determined in their psychometric analysis of the PCL-5 among military service members a *Cronbach's alpha* (α) score of 0.95.

The next instrument used was the Organizational Police Stress Questionnaire (PSQ-Org). This instrument consists of 20 questions and is based on a Likert scale of 1 to 7. The scales range from: no stress at all, to moderate stress, to a lot of stress. The PSQ-Org consists of questions regarding the level of stress in dealing with issues such as: co-workers, favoritism, staff shortages, inconsistent leadership styles, lack of resources, unequal workloads, amongst others. This instrument was used to measure organization stress of police work in the population. McCreary and Thompson (2006) determined a *Cronbach's alpha* (α) of greater than 0.90 for the PSQ-Org in their study of organizational and operational stress of police officers.

Levels and prevalence of alcohol abuse was studied. For determining alcohol abuse the Alcohol Use Disorders Identification Test (AUDIT) from the World Health Organization was used. This instrument consists of ten questions each scored 0 to 4. These scales may vary based upon the question; however, the scales are all based on zero equaling "no" or "never" and increases in frequency as the numbers increase from one to four. The questions asked by AUDIT involve matters such as the frequency that alcoholic beverages are consumed, the number of drinks consumed daily, and how often more than six drinks are consumed on one occasion. Additional questions are in regard to matters such as issues such as feelings of guilt or remorse for drinking, to memory recall problems, to having friends or relatives suggesting that the individual cuts down on the amount of alcohol that they are consuming. The 2010 study by Nesvag et al. concluded a *Cronbach's alpha* (α) above 0.90 in the use of screening instruments in detecting alcohol use. As well as Boschloo et al. (2010) concluded that AUDIT accurately detected alcohol abuse and dependence in depressed and/or anxious individuals with an AUC =

0.89 for males and AUC = 0.88 for females. Listed on www.auditscreen.org by the World Health Organization are 171 citations that attest to the reliability and validity of AUDIT on various populations to determine problematic and hazardous alcohol consumptions.

Lastly, the Columbia Suicide Severity Rating Scale (C-SSRS) was used to determine suicidal ideation. This instrument consists of six questions. The questions are five yes/no, along with one response answering no/in lifetime/in past 3 months, with two points given for within last 3 months. These questions consist of non-specific thoughts of suicide, consideration of plans for suicide, duration of thoughts, ability to control those thoughts, and deterrents from action. The C-SSRS was used in research by Madan et al. (2016) and was found to have a *Cronbach's alpha* (α) of 0.95. Several organizations have endorsed, recommended, or approved the C-SSRS such as: Department of Defense, Center for Disease Control, FDA, NIH, SAMHSA, Action Alliance, American Foundation for Suicide Prevention, and the World Health Organization (Columbia Lighthouse Project, 2016).

Research Design & Methodology

The design of this research study is nonexperimental research using a survey approach with a cross-sectional design. The survey was administered electronically, and the pace and completion of the survey was solely controlled by the participant. The rationale for this design is multifaceted. From a research perspective this design has been chosen to increase likelihood of participation by limiting the time necessary to complete the survey, as well as the convenience of completing whenever and wherever most comfortable for the participant. From a participant perspective this design has been chosen to limit potential for triggering events by limiting details of responses, maintaining anonymity of participants, and avoiding direct face-to-face communication or questioning by the researcher. An informed consent form was utilized

addressing the anonymity of the proposed study, the ability for subjects to obtain the results if desired, and clear instructions to stop the survey if any subject matter may have any triggering results. Also listed were multiple anonymous and confidential resources available to assist any individual that may be interested in seeking help and/or treatment for any of the matters addressed in the study; resources to include but not limited to law enforcement (LE) helplines, sources for help locating licensed therapists experienced with LE and PTSD, suicide helplines, and additional educational resources available. Information regarding the design, purpose, and confidentiality of the research study was presented in email form; to include website links to—and numbers for—resources available to LE regarding subject matter in this study.

Demographics of the survey-taker were anonymously collected as well. These data points included rank, age, time on the job, race, ethnicity, and gender. The survey consisted of all five instruments totaling 75 questions.

The survey was designed and presented in these ways—along with other safeguards—to ensure the respect of the survey-taker and maintaining the requirements set forth in the *Belmont Report*. Respect for persons was ensured so that no data collected will be able to be traced to an individual, maintaining strict anonymity. The survey was designed to be completed on a computer or mobile device. Therefore, the survey-taker complete the survey in complete privacy; at a time and location of their choosing, and without any of their peers knowing that the survey was completed. The informed consent form clearly explained that the survey can be stopped at any point.

In regard to beneficence, the survey did not collect any data—or pose any questions—involving specific events or incidents. The questions asked were general in nature; and the questions pertained to the topics from a distance as opposed to direct personal experiences. The

informed consent form also listed a variety of confidential services available for the topics discussed. The data was collected anonymously and only the analysis shared with anyone; this data will be untraceable back to the individual survey-taker.

The principle of justice was accounted for by the researcher with complete focus and commitment. The survey-takers have access to the results of the data analysis if desired. No individual—or group of individuals—were treated differently or given any special focus or lack thereof. The research study will be used to better assist those individual survey-takers—as well as the rest of the population—in determining needs and services based on the topics studied. This research study—through data collection and analysis—will provide members of this population to be able to voice their issues and concerns regarding these matters to the administration with anonymity and impunity.

Data Analysis

Data analysis were conducted using SPSS software. With data collected on six demographic variables, as well as five independent variables and one dependent variable, the use of inferential statistics and descriptive statistics, along with multivariate linear regression and correlational analyses were performed. This was done to determine the relationship—if any—exists between childhood trauma, PTSD, organizational stress, occupational stress, relationship problems, and alcohol abuse with the level of suicidal ideation in this sample of police officers. As well as the frequency and variation of both the independent variables and the dependent variable across the control variables. The variables of rank, race, ethnicity, and gender were measured at the nominal level. The variables of age and time on the job were measured on the ordinal scale. And lastly, the variables of ACEs, PTSD, suicidal ideation, alcohol abuse, organizational stress, and relationship problems were measured on the ratio level.

Chapter 4: Data Analysis

Survey Implementation and Response Rate

The survey was randomly distributed amongst the police department's roster of 701 sworn members. The department roster used had all members alphabetized by last name. The researcher used www.random.org to generate list of 500 random numbers between one and 701. That list of numbers was used in conjunction with the numbered department roster to generate a list of 500 sworn members official department email addresses.

Microsoft Outlook was used to send this randomly generated list of 500 sworn members the IRB-approved email with the IRB-approved consent form attached. According to *Microsoft Outlook*, 449 emails were received out of the 500. The 51 emails that were not received were a result of members either no longer being part of the department, and/or due to long-term injury/illness members' mailboxes were full and not accepting additional emails.

Included at the bottom of the consent form was a hyperlink to the research study via *Survey Monkey*. Participants had to open the attached consent form and read to the bottom before having access to the hyperlink. This email was sent a total of four times—once per week—and the survey was open for a total of 30 days. As a result, the survey received 232 responses for a response rate of 51.6%.

Demographics and Comparison to Overall Population

The survey required certain demographic information and current work status information to be collected. In terms of gender, the sample comprised 232 participants. 19 percent female and 81 percent male. Race and ethnicity are comprised of five groups; these are 81 percent White/Caucasian, 9.1 percent Hispanic/Latino, 8.6 percent Black/African American, 0.9 percent Asian/Asian American, and 0.4 percent Native Hawaiian/Pacific Islander. The

gender of the department consists of 13.4 percent female and 86.5 percent male. While the department's race and ethnicity are comprised of 84.3 percent White/Caucasian, 11 percent Hispanic/Latino, 12.8 percent Black/African American, 1.6 percent Asian/Asian American, and 0.6 percent Native American/Pacific Islander.

The next demographic collected from the survey was age. Four age brackets consisting of ten-year increments—starting from youngest eligible of 21 years of age—and ending with 50+ years. The 31 to 40 years bracket accounted for 41.4 percent of the sample; followed by 41 to 50 years with 29.7 percent, 50+ years with 17.7 percent, and the 21 to 30 years bracket with 11.2 percent. The department's composition using the same age brackets are as follows: 31 to 40 years bracket accounts for 39.2 percent, 41 to 50 years with 30.3 percent, 50+ years with 16.1 percent, and the 21 to 30 years bracket with 14.2 percent.

The length of time that the participant has been a full-time police officer was collected in 5-year increments ranging from one to five up to more than 20 years. The bracket of 11 to 15 years accounted for 29.7 percent of the sample. More than 20 years comprised 27.6 percent of the sample population; followed by 16 to 20 years at 17.2 percent, one to 5 years at 13.8 percent, and 6 to 10 years at 11.6 percent. The department's composition using the same 5-year increments are as follows: 11 to 15 years accounts for 32.4 percent, more than 20 years with 21.2 percent, 16 to 20 years with 12.9 percent, one to five with 21.9 percent, and 6 to 10 years with 11.9 percent.

Rank was collected in three categories: Officer/Investigator, Sergeant/Lieutenant, and Captain/Appointed Staff. Officer/Investigator category accounted for 75.4 percent of the sample population. Sergeant/Lieutenant accounted for 20.3 percent of the sample. And Captain/Appointed Staff accounted for 4.3 percent of the sample population. The department's

composition of rank are as follows: Officer/Investigator accounts for 80.3 percent, Sergeant/Lieutenant is 17.2 percent, and Captain/Appointed Staff is 2.5 percent.

Finally, the last current work status data collected is the participants' current assignment category. There are four assignment categories in this survey: patrol, investigative, specialized unit, and administrative. Patrol accounted for 50.4 percent of the sample population. Investigations is the next largest category with 21.1 percent. Followed by 18.5 percent for specialized unit, and 9.9 percent administrative assignment. Determining the exact composition of the department presents a challenge. An individual may be assigned to a category, however that individual's specific job may fall into another category. For example, an individual may be assigned to "patrol" yet actually have an administrative position.

Data Results

Research Question 1. What is the frequency and variation on ACE scores for police officers that have experienced suicidal ideation?

This study found that 56% of the sample population had an ACE score of at least of one. 27% of the sample population had an ACEs score of at least two, and 8% had a score of four or more. In the original study, Felitti et al. (1998), found that 52% of their sample had at least a score of one, and 6% reported a score of four or more. This study found only small effect sizes of correlation between ACEs for gender and race; $r(8) = .156, p = .018$ and $r(8) = .251, p < .001$, respectively.

According to the CDC (n.d.), approximately 3.9% of the American population experiences suicidal ideation. This research study found that 11% of the sample experienced suicidal ideation. Of the 11% of individuals reporting suicidal ideation, 72% of them reported having one or more ACEs.

C-SSRS Results

The final instrument used in this study is the Columbia Suicide Severity Rating Scale (C-SSRS). This is a six-question instrument consisting of yes or no responses; the first five are regarding suicidal ideation in the past month, and the last question is regarding preparatory acts or behavior over lifetime. In terms of the first five questions, a score of one or two would suggest that an individual should receive a routine health referral. A score of three would suggest a review by a care team; and a score of four or five suggests the need for emergent action, safety monitoring, and a psychological consult.

Research Question 2. What is the frequency and variation of critical incident trauma for police officers that have experienced suicidal ideation?

In regard to the PCL-5, 11% of this study's sample population scored equal to or greater than 28; while 9% scored equal to or greater than 30, and 1.3% scored equal to or greater than 45. According to the National Institute of Mental Health (2020), approximately 3.6% of the American population has PTSD. When comparing the participants that scored as having suicidal ideation on the C-SSRS to those that scored as having PTSD symptoms on the PCL-5, 92% had both.

PCL-5 Results

The second instrument used in the research study was the PCL-5. This instrument consists of 20 questions based on a Likert-scale of zero to four. Scores greater than 30 are considered to reach the level of clinical concern for PTSD. The research study provided a sample size of 224 complete responses.

Research Question 3: What is the frequency and variation of organizational stress level for police officers that have experienced suicidal ideation?

In regard to the PSQ-Org, 27% of the average scores across all 20 items are equal to or greater than 2.7; while 8% of the average scores across all 20 items are equal to or greater than 4. In relation to those participants that scored in the C-SSRS, 48% had PSQ-Org average scores of equal to or greater than 2.7; and 8% had PSQ-Org average scores equal to or greater than 4.

PSQ-Org Results

The third instrument used in this research study is the Organizational Police Stress Questionnaire (PSQ-Org). This instrument consists of 20 questions designed to gauge the level of police organizational stress. Average scores that are equal to or greater than 2.7 and less than 4 are considered to be at moderate stress levels. Average scores that are equal to or greater than 4 are considered to be at high stress levels.

Research Question 4: Is alcohol use different between the sample population of police officers and the general population?

In regard to AUDIT scores, 21.1% of the sample scored equal to or greater than 8, indicating hazardous/harmful alcohol use. 5% of the sample reached a level of suspected alcohol dependency. The sample is nearly 2.5 times greater than the general population. The National Institute of Health (2004) study found 8.46% of people scored an 8 or higher ($n=43,093$).

Gender and AUDIT scores were found to have a small negative correlation, $r(216) = -.249, p < .001$, demonstrating that males were slightly more likely to have higher AUDIT scores.

Race and AUDIT scores were found to have a small negative correlation as well, $r(216) = -.135, p = .023$, with Whites/Caucasians slightly more likely to have higher AUDIT scores.

AUDIT Results

The fourth instrument used in this study is the Alcohol Use Disorders Identification Test from the World Health Organization (WHO). This is a ten-question instrument with each

question being scored zero to four. According to www.auditscreen.org, scores totaling eight up to 14 are considered to suggest hazardous to harmful alcohol consumption, while scores of 15 or higher indicates a likelihood of a moderate-to-severe alcohol use disorder (alcohol dependence). 218 participants fully completed this section, and 21.1% of them scored equal to or greater than eight suggesting hazardous alcohol use and/or alcohol dependency. Of that group, 19.6% scored 15 or more indicating the likelihood of alcohol dependence.

Chapter 5: Discussion

For the first time in several years the number of police line of duty deaths (LODD) exceeded that of documented police suicides. According to *Officer Down Memorial Page*—who tallies yearly police line of duty deaths—there were 307 police LODD in 2020. This exceeds the amount of documented police suicides in 2020 that *Blue Help* has listed as 173. However, the anomaly this past year in terms of LODD was COVID-19. *Officer Down Memorial Page* lists the number of COVID-19 related police LODD as 189. Removing these COVID-19 related LODD would once again place documented police suicides up 32% greater than LODD; 173 to 118, respectively. Again, removing COVID-19 related LODD places police suicide as an increased likelihood of death, considering police suicides in 2020 were down 28% compared to 2019.

This research study was conducted involving the fourth largest law enforcement agency in New York State out of approximately 540 (DCJS, 2020). 449 sworn-members of the roster of 701 sworn-members received the IRB approved email and consent form requesting voluntary participation in the study. Of the 449 individuals that received the participation request, 232 responded by completing the research questionnaire. The IRB approved email and consent form were emailed to the 449 individuals on three occasions over a four-week period. The anonymous responses were collected through Survey Monkey; and at the conclusion of the four-week period the researcher entered the data collected into SPSS for analysis.

Childhood Traumatic Experiences

Research Question 1: What is the frequency and variation on ACEs scores for police officers that have experienced suicidal ideation?

Hypothesis 1: It is expected that ACEs scores of police officers and suicidal ideation will be positively correlated.

The instruments used are the ACEs ten-question survey involving traumatic exposure in childhood, and the six-question Columbia-Suicide Severity Rating Scale. In terms of ACEs, this study found that 56 percent of the sample population had at least a score of one. Twenty-seven percent of the sample population had an ACEs score of at least two, and eight percent had a score of four or more. In the original study, Felitti et al. (1998), found that 52 percent of their sample had at least a score of one, and six percent reported a score of four or more. As demonstrated, this study's sample reported very similarly, with only slightly increased results. This study found only small effect sizes of correlation between ACEs for gender and race; $r(8) = .156, p = .018$ and $r(8) = .251, p < .001$, respectively.

According to the CDC (n.d.), approximately 3.9 percent of the American population experiences suicidal ideation. This research study found that 11 percent of the sample (25 out of 227) experienced suicidal ideation. Of the 11 percent of individuals reporting suicidal ideation, 72 percent of them reported having one or more ACEs. However, there were no statistically significant correlations between ACEs and the C-SSRS found.

Critical Incident Trauma

Research Question 2: What is the frequency and variation of critical incident trauma for police officers that have experienced suicidal ideation?

Hypothesis 2: It is expected that critical incident trauma exposure to police officers and suicidal ideation will be positively correlated.

The PCL-5 consist of 20 questions with a possible score between zero and 85. According to Boston University, scores of 28-29 demonstrate some PTSD symptoms and further evaluation is suggested. Scores ranging from 30 to 44 demonstrate moderate to moderately high severity of PTSD symptoms. And scores greater than 44 demonstrate high severity of PTSD symptoms.

Eleven percent of this study's sample population scored equal to or greater than 28; while nine percent scored equal to or greater than 30, and 1.3 percent scored equal to or greater than 45. According to the National Institute of Mental Health (2020), approximately 3.6 percent of the American population has PTSD. When comparing the participants that scored as having suicidal ideation on the C-SSRS to those that scored as having PTSD symptoms for critical incident trauma on the PCL-5, 23 out of 25—92 percent—had both. No statistically significant correlations were found between the PCL-5 scores and the independent variables collected in this study.

Police Organizational Stress

Research Question 3: What is the frequency and variation of organizational stress level for police officers that have experienced suicidal ideation?

Hypothesis 3: It is expected that organizational stress in police officers and suicidal ideation will be positively correlated.

To determine police organizational stress the Organizational Police Stress Questionnaire (PSQ-Org) was utilized. The PSQ-Org consists of 20 questions on a Likert scale of 1 to 7. An average total score of 2.7 to 3.9 demonstrates moderate stress levels, while a score of greater than 4 demonstrates high stress levels. Twenty-seven percent of this study's sample population scores are equal to or greater than 2.7; while eight percent are scores equal to or greater than 4. In relation to those participants that scored in the C-SSRS, 48 percent had PSQ-Org average scores of equal to or greater than 2.7; and eight percent had PSQ-Org average scores equal to or greater than 4. No statistically significant correlations were found between the PSQ-Org and the independent variables collected in this study.

Alcohol Use and Abuse

Research Question 4: Is there a significant difference in alcohol use between the sample population of police officers and the general population?

Hypothesis 4: It is expected that police officers will have a significant increase in hazardous/harmful alcohol use compared to the general population of the United States of America.

The Alcohol Use Disorders Identification Test (AUDIT) from WHO was utilized in this study to determine hazardous alcohol use. Over 21 percent of participants ($n = 218$) scored equal to or greater than an eight, indicating hazardous/harmful alcohol use. Nearly 20 percent of those reached a level of suspected alcohol dependency. The sample population of police officers in this study is nearly 2.5 times greater than the sample in the National Institute of Health's (2004) study. The National Institute of Health (2004) used AUDIT to survey 43,093 people in the general population of the United States. Their study found 8.46% of people scored an eight or higher. This current study's results are very similar to Oehme et al. (2012), survey of Florida police officers that found 23.2% reporting problematic drinking habits. Increased use of alcohol increases suicidal ideation, particularly those officers with experiencing depression, anger, and burnout (Bishopp & Boots, 2014, p. 544). Gender and AUDIT scores were found to have a small negative correlation, $r(216) = -.249, p < .001$, demonstrating that males were slightly more likely to have higher AUDIT scores. Race and AUDIT scores were found to have a small negative correlation as well, $r(216) = -.135, p = .023$, with Whites/Caucasians slightly more likely to have higher AUDIT scores.

Conclusions

In conclusion to the findings of this study, the results were found to be similar to existing literature and research. Suicidal ideation was found to be 2.5 times higher in this study's sample population of police officers when compared to that of the general population (CDC, n.d.). However, no statistically significant correlations were found in regard to the independent variables collected. Adverse childhood experiences were found to only have a slight increase over the general population; with no statistically significant correlations to any of the independent variables collected. PTSD levels were found to be three times higher in this study's sample population than compared to the general population. While no statistically significant correlations were found between the independent variables collected and PTSD symptomology, 92 percent of those in this study that answered to experiencing suicidal ideation also had PTSD symptoms present. In terms of police organizational stress, 27 percent of the sample population scored as having overall average scores of moderate to high levels of stress. Once again, no statistically significant correlations were found between PTSD and the independent variables collected. Hazardous/harmful alcohol use was found to be 2.5 times more likely in this study's sample population when compared to the general population (NIH, 2004). This data is very similar to current literature and research of police officers (Oehme et al., 2012).

Limitations

The research study may have some limitations. First, external validity and/or generalizability. This convenience sample is but one population of a medium-sized police department in the northeast region of the United States. Differing regions of the United States have different labor policies. This particular region operates under Civil Service law and has

Labor Union contracts in place. Other regions may be “right-to-work” states, therefore organizational and occupational stressors may be significantly different across regions.

Secondly, there is a potential for reactivity to assessment and/or social desirability to the proposed research topics. This would be an issue involving subjects altering their responses to be less negative. Based upon the research topic and previous scholars research collected in these areas there may be a potential for underreporting. Through the use of—a clear explanation of—the strict confidentiality of the data collection, the researcher attempted to limit as much underreporting as possible. The data were collected and analyzed to determine internal validity; the results were compared to widely accepted percentages from previous research studies to compare data points.

Low response rate could be a threat to validity. Low response rates could affect the data to either extreme. The researcher attempted to control for this potential limitation through presentations and personal relationships. This population is a convenience sample that the researcher has developed a trusted and respected relationship with over several years.

The timeframe related to the instruments used in this study may be a factor in terms of response. AUDIT for example seeks answers occurring within the previous year. The researcher was approached by several individuals after having completed the survey, that discussed their alcohol use had been what they self-described as a “problem” or a “bad thing” further out than previous year. Similarly, the C-SSRS primarily focuses on questions related to the previous 30 days. These timeframes covered by the instruments used may alter correlations to independent variables collected that change over a police officer’s career (e.g., time on the job, rank, assignment, etc.).

Another factor that may be a limitation is reactivity to assessment and/or social desirability. Although confidentiality and anonymity were clearly explained in the IRB-approved email and consent form, subject matter may have made some participants underreport or fail to answer certain questions. The researcher was also approached by some participants after they had completed the survey stating that they were unwilling to answer some of the questions for fear of their answers being discovered by peers and/or the administration.

Implications

The conclusions drawn from this study generally support existing literature and recent research. Although limited statistically significant correlations were found between the independent variables collected, further research should be completed to seek potential correlations and to discover new ways to ameliorate these risk factors and precursors. Different instruments that cover longer periods of time should be used to seek changes over an individual's police career.

While ACEs were slightly higher than the original study, there does not appear to be any significant relationships to suicidal ideation, as originally hypothesized. However, in terms of any possible connection between PTSD and suicidal ideation there appears to be a potential relationship. Of those participants that reported any suicidal ideation, 92% met the criteria for clinical concern of PTSD. Further research needs to be completed in determining the relationship.

Promoting wellness and well-being within the police department can be done through several means. According to the *President's Task Force on 21st Century Policing* (2015), Pillar 6 is Officer Wellness and Safety. As a result of the findings of the task force, the *Law Enforcement Mental Health and Wellness Act* (2017) was signed into law in 2018. The LEMHWA officially

recognized the need for departments to provide ongoing support for Officers' well-being and mental health. The stress associated with being a police officer is significant and continues to increase over time. In order for policing to be effective—as well as equitable—the physical, emotional, and mental well-being of Officers needs to be a top priority. Developing, endorsing, and supporting Officer Wellness programs and training initiatives will enable Officers to better do their jobs; and in turn, improve police-community relationships and trust.

Many factors can negatively influence Officer wellness and/or exacerbate existing struggles an Officer may be experiencing. These factors can range from sleep disorders, sleep deprivation, and sleep apnea; to critical incident trauma, organizational stress, depression, and alcohol use/abuse. And all of these factors are negatively affected by lack of exercise, poor nutrition, high cortisol levels, and heart disease.

Smarter scheduling may be a potential method to help address officer wellness and well-being. However, issues such as staffing, budget constraints, and contractual Union obligations make this method much more challenging to implement. Instead, focusing on a proactive approach to Officer Wellness on both an individual level, as well as a Department-wide level, would be a much more immediately available approach.

Many mental health challenges that Officers may experience throughout their careers can be effectively addressed through a proactive approach that increases an open atmosphere within the department. This type of proactive approach provides resources to Officers and increases Officer awareness of how to access these resources. A holistic approach to Officer wellness working with both mind and body is needed to assist Officers with achieving a healthy and long career; as well as a successful home life, both during their career and then following them into retirement.

There are many different forms of holistic approaches that are implemented in various law enforcement agencies across the United States. The California Commission on Peace Officer Standards and Training uses an approach referred to as “The Ten F’s for Success: Maximizing Quantity & Quality for Your Life” (CCPOST, 2020). This program was developed by Gordon Graham the Co-Founder of Lexipol. Mr. Graham’s program is very similar to others used, such as Dr. Seligman’s *PERMA™ Theory of Well-Being*, and *SAMHSA’s Eight Dimensions of Wellness* which is used by the NYS Division of Criminal Justice Services in their Officer Wellness curriculum. All of these programs—and many more like them—take a holistic approach to wellness by looking at all dimensions of an Officer’s life, such as: emotional, spiritual, intellectual, physical, environmental, financial, occupational, and social (SAMHSA, 2016).

In addition to the department’s existing EAP, there are several successful programs that can be implemented. These programs need to be proactive and focus upon early intervention and early detection. Law enforcement agencies and Officers both need to have a much better understanding of many potentially deadly concerns such as, cumulative career traumatic stress, PTSD, suicidal ideation, depression, and alcohol abuse, amongst others. This process may start with a needs assessment survey to gauge specific needs of Officers. Through the use of the survey along with a program evaluation of the current program, the department can begin to identify the needs of—and enhance—the existing wellness program. In-service trainings should be used to familiarize Officers with these areas of concerns, as well as how all the dimensions of Officers’ lives are one interdependent system and how deficiencies in any one dimension can create or exacerbate problems in other dimensions.

These types of programs coincide with the recommendations from the Department of Justice (DOJ) and the Bureau of Justice Statistics (BJA) report to Congress in 2019 regarding the LEMHWA. Recommendation four is, “to provide support programs for law enforcement family readiness at the federal, state, and local level” (COPS, 2019). And the sixth recommendation is, “to support the development of model policies and implementation guidance for law enforcement agencies to make substantial efforts to reduce suicide” (COPS, 2019).

The efficacy of such programs is clearly demonstrated through the research involving the Montreal Police in 2012 (Mishara & Martin, 2012). Martin and Mishara (2012), studied the impact of a department implemented suicide prevention program to 4,178 members of the Montreal Police. Over a 12-year period the Montreal Police saw a decrease by 79 percent in annual police officer suicides while other departments in Quebec have seen an increase of 11 percent (Martin & Mishara, 2012).

Another increasingly used program or initiative in departments is the creation of a Wellness Unit, or a Chief Resiliency Officer, in order to proactively assist officers with their wellness and well-being. The San Diego Police Department established a Wellness Unit in 2011 (Albreksten, n.d.). The SDPD’s Wellness Unit consists of four full-time Officers and Sergeants with the goal of training on—and connecting Officers with—services to improve their emotional and physical well-being (Albreksten, n.d.). According to Albreksten (n.d.), the SDPD’s Wellness unit also manages the Department’s Peer Support Program, Police Chaplain Program, Alcohol/Substance Abuse Programs, and psychological services. This Unit was originally housed off-site, however in an effort to lessen stigma the SDPD’s Wellness Unit has since been located inside of Police Headquarters. The Wellness Unit also provides instruction and services to family members of Officers, as well as the Department’s civilian employees.

As recently as within the last few weeks, departments in New Jersey have started creating positions of Chief Resiliency Officer through the direction of New Jersey Attorney General Grewal (Crespolini, 2020). The Chief Resiliency Officer will be responsible for ensuring the implementation of the New Jersey Resiliency Program for Law Enforcement (NJRP-LE). The NJRP-LE is designed as a statewide program to instruct Officers “to become better equipped to handle the daily stress of police work that, when left unchecked, may lead to physical ailments, depression, and burnout” (Crespolini, 2020).

Research needs to be conducted on an on-going basis to stay aware of best-practices, and to help identify new resources. Increased training and education through in-service—as well as through seminars and/or workshops—can help Officers and their families not only identify, but also problem-solve issues that hurt their overall wellness and well-being. Proactively seeking Officers out and maintaining continued departmental contact with Officers out of work, while acting as advocates for their successful return to duty is another method. Officers need to not only be made aware of resources that are available to them, but also how to connect with those resources. Confidentiality needs to be the guiding principle and paramount.

Addressing the well-being of an Officer following a traumatic event can be accomplished through the many of the same means previously discussed. In order to be effective, the approach needs to be proactive instead of reactive, holistic in nature, provide increased awareness and access to resources, and follow-up must be ensured. The DOJ and BJA report to Congress (2019) for the LEMHWA lists as recommendation 13 to “support the expansion of peer support programs to ensure all officers have access to this important wellness service” (COPS, 2019). This report also lists recommendation 14 to “support the expansion of peer programs to include broader health and wellness, not just critical incident stress” (COPS, 2019).

Peer support has been well-documented as an effective method to assist Officers throughout their career, but more importantly following a traumatic event. Many Officers may be hesitant to utilize outside counseling services following a traumatic event, however many are willing to turn to their fellow Officers to seek support. Peer support must rely upon confidentiality; currently in New York state peer services are not considered to be privileged. Therefore, confidentiality is critical and paramount if the services are to be utilized and effective. Other states—such as Washington state—have realized the need and benefits of peer support for Officers and have already passed legislation to ensure the details of peer support discussions are privileged. Willis (2014), states that peer services have a significant and positive impact increasing Officer morale and ameliorating post-traumatic stress.

Providing proactive peer support to all Officers, but specifically to Officers following a traumatic event has become commonplace across law enforcement nationally. Peer support services are supported and recommended by the Department of Justice, the IACP, FLETC, Lexipol, as well as by Mental Health Professionals and Medical Doctors. And the overwhelming majority of police wellness programs consist of peer support as a critical element of their programs. For example, the *Asher Model Seven Point Approach to Culture of Wellness* developed by the Pinole Police Department lists peer support as its third point of their program's seven-point star (Gang, 2019).

The department needs to support peer services and peer mentor training from the top down. This can be achieved through the use of *Kotter's 8-step Change Model* by creating a sense of urgency, forming a powerful coalition, and removing obstacles, amongst other steps (Kotter, n.d.). The department needs to “support training programs for peer mentors for peer support programs to expand”, which is recommendation 16 from the DOJ and LEMHWA (COPS, 2019).

This training cannot be a one-time event but must be a commitment to ongoing training and investment in both the program and its staff. This ongoing training is critical to the success of the peer support program.

Another increasingly common method to assist Officers after a traumatic event is through the use of smartphone applications. One widely used app is the *CordicoShield Employee Wellness App*. Cordico provides confidential and anonymous access to powerful resources and self-evaluations 24/7/365 via a smartphone app that is custom tailored to a specific department. This immediate and easy access to services, resources, and self-evaluations provides Officers with answers and resources on-demand. Several departments nationally have provided this resource as an option to their Officers. In August of this year, the Syracuse Police Department began providing access to their department-specific app to their Officers via the *CordicoShield Employee Wellness App* (Baker, 2020). Cordico has contracted Kevin Gilmartin, PhD to assist in the development and continued support of the *CordicoShield Employee Wellness App*. Dr. Gilmartin is perhaps best known for his book, *Emotional Survival of Law Enforcement* (2002) which is commonly cited and used throughout departments nationally in wellness programs.

Chaplain services are another method to assist Officers following a traumatic event. Chaplain services can provide a support system for Officers. These services are non-Denominational, are spiritual, but not necessarily religious. Since Chaplains are ordained, the use of Chaplain services is both confidential and privileged in nature.

Other services available is the access to mental health therapy. PTSD is not a life sentence, and symptoms can be ameliorated and potentially cured through the use of evidenced-based treatment. Therapy options such as EMDR, cognitive behavioral therapy (CBT), prolonged

exposure (PE), and cognitive processing therapy (CPT), have all been proven effective through empirical research and data.

Supporting programs such as *Post Critical Incident Seminars* (PCIS) put on through a not-for-profit organization the New York Law Enforcement Assistance Program, is another way to assist Officers well-being after a traumatic event. The PCIS is based on a method developed by the FBI. This program is used in 16 different states over hundreds of times, and it is supported by evidence-based research to be effective in assisting Officers deal with post-traumatic stress and PTSD.

Through strong and consistent support of these programs—and others similar—the department can improve overall Officer wellness and well-being. These efforts will assist all officers throughout their career, as well as those Officers that have been exposed to a traumatic event. Continued support combined with ongoing research will allow the department to remain aware of current best-practices and develop additional resources available to Officers and their families. As a result of this support, morale will improve, and Officers will be better prepared to do their job. Empirical data and research demonstrate that as Officer wellness improves, in turn police-community relationships and trust improves. Supporting these programs will improve overall Officer wellness which leads to improved job satisfaction and job performance. The positive effects of programs such as these not only impacts the well-being of the Officers but improves many other aspects of policing that communities demand.

References

- Aamodt, M. G. (2008). Reducing misconceptions and false beliefs in police and criminal psychology. *Criminal Justice and Behavior*, 35(10), 1231-1240.
<http://doi:10.1177/0093854808321527>
- Adkins, J. (2014). Police officer suicides: Dispelling the myths. Causes, prevention, and intervention strategies[webpage]. Retrieved at <http://undertheshield.org/wp-content/uploads/Police-Officer-Training-and-Suicide-Prevention1.pdf>
- Albreksten, S. (n.d.). *San Diego Police Wellness Unit Overview*. Retrieved from <https://www.californiapolicechiefs.org/assets/news/Executive%20Summary%20Wellness%20Unit%20San%20Diego%20PD.pdf>
- Arble, E., Lumley, M. A., Pole, N., Blessman, J., & Arnetz, B. B. (2017). Refinement and preliminary testing of an imagery-based program to improve coping and performance and prevent trauma among urban police officers. *J Police Crim Psychol*, 32(1), 1-10.
<http://doi:10.1007/s11896-016-9191-z>
- American Foundation for Suicide Prevention (2014). *Risk factors and warning signs* [webpage]. Retrieved at <http://www.sfsp.org/preventing-suicide/risk-factors-and-warning-signs>
- American Foundation for Suicide Prevention (n.d.). *Suicide statistics* [webpage]. Retrieved at <https://afsp.org/about-suicide/suicide-statistics/>
- Baker, C. (2020, August 20). *Syracuse Police Department to Adopt New Mental Health Service for Officers* [webpage]. Retrieved at <https://www.syracuse.com/news/2020/08/syracuse-police-department-to-adopt-new-mental-health-service-for-officers.html>
- Basinska, B.A. & Wiciak, I. (2012). Fatigue and professional burnout in police officers and firefighters. *Internal Security*, July-December 2012, 267-275

- 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. <http://doi:10.1016/j.jcrimjus.2014.09.007>
- Boschloo, L., Vogelzangs, N., Smit, J. H., van den Brink, W., Veltman, D. J., Beekman, A. T., & Penninx, B. W. (2010). The performance of the Alcohol Use Disorder Identification Test (AUDIT) in detecting alcohol abuse and dependence in a population of depressed or anxious persons. *J Affect Disord*, 126(3), 441-446. <http://doi:10.1016/j.jad.2010.04.019>
- California Commission on Peace Officer Standards and Training (2020). *De-escalation: Strategies & Techniques for California Law Enforcement* [webpage]. Retrieved at https://post.ca.gov/Portals/0/post_docs/publications/DeEscalation.pdf
- Center for Disease Control (2018). [webpage] Retrieved at <https://www.cdc.gov/vitalsigns/suicide/>
- Chae, M. H., & Boyle, D. J. (2013). Police suicide: prevalence, risk, and protective factors. *Policing: An International Journal of Police Strategies & Management*, 36(1), 91-118. <http://doi:10.1108/13639511311302498>
- Charbonneau, F. (2000). Suicide among the police in Quebec. *Population*, 55, pp. 367-378.
- Chopko, B. A., Palmieri, P. A., & Facemire, V. C. (2013). Prevalence and predictors of suicidal ideation among U.S. law enforcement officers. *Journal of Police and Criminal Psychology*, 29(1), 1-9. <http://doi:10.1007/s11896-013-9116-z>
- Clark-Miller, J., & Brady, H. C. (2012). Critical stress: police officer religiosity and coping with critical stress incidents. *Journal of Police and Criminal Psychology*, 28(1), 26-34. <http://doi:10.1007/s11896-012-9112-8>

- Crespolini, R. (2020, November 23). *Training Helps Mendham Officers Handle Mental Health Challenges*. Retrieved from <https://patch.com/new-jersey/mendham-chester/training-helps-mendham-officers-handle-mental-health-challenges>
- Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., . . . Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The Adverse Childhood Experiences (ACE) Study. *Am J Prev Med*, *14*(4), 245-258. [http://doi:10.1016/S0749-3797\(98\)00017-8](http://doi:10.1016/S0749-3797(98)00017-8)
- Fleischmann, M. H., Strode, P., Broussard, B., & Compton, M. T. (2016). Law enforcement officers' perceptions of and responses to traumatic events: a survey of officers completing crisis intervention team training. *Policing and Society*, *28*(2), 149-156. <http://doi:10.1080/10439463.2016.1234469>
- Gang, N. (2019). *Aher Model 7-Point Approach to a Culture of Wellness*. Retrieved at <https://www.cordico.com/2020/09/23/asher-model-7-point-approach-to-a-culture-of-wellness/>
- Gerber, M., Hartmann, T., Brand, S., Holsboer-Trachsler, E., & Pühse, U. (2010). The relationship between shift work, perceived stress, sleep and health in Swiss police officers. *Journal of Criminal Justice*, *38*(6), 1167-1175. <http://doi:10.1016/j.jcrimjus.2010.09.005>
- Gould, L.A. (2000). A longitudinal approach to the study of police personality: Race/gender differences. *Journal of Police and Criminal Psychology*, *15*, 41-51.
- Hickman, M. J., Fricas, J., Strom, K. J., & Pope, M. W. (2011). Mapping police stress. *Police Quarterly*, *14*(3), 227-250. doi:10.1177/1098611111413991

- IACP (2013). Psychological fitness-for-duty evaluation guidelines [webpage]. Retrieved at <https://www.theiacp.org/sites/default/files/all/p-r/Psych-FitnessforDutyEvaluation.pdf>.
- Karaffa, K., Openshaw, L., Koch, J., Clark, H., Harr, C., & Stewart, C. (2014). Perceived impact of police work on marital relationships. *The Family Journal*, 23(2), 120-131.
<http://doi:10.1177/1066480714564381>
- Klinoff, V. A., Van Hasselt, V. B., & Blacj, R. A. (2015). Homicide-suicide in police families: An analysis of cases from 2007-2014. *Journal of Forensic Practice*, 17(2), 101-116.
- Kotter (n.d.). *The 8-Step Process for Leading Change* [webpage]. Retrieved at <https://www.kotterinc.com/8-steps-process-for-leading-change/>
- Lambert, E. G., Qureshi, H., Frank, J., Klahm, C., & Smith, B. (2017). Job stress, job involvement, job satisfaction, and organizational commitment and their associations with job burnout among Indian police officers: A research note. *Journal of Police and Criminal Psychology*, 33(2), 85-99. <http://doi:10.1007/s11896-017-9236-y>
- Lewis, C.(2014). Police suicide is an alarming problem rarely discussed publicly [webpage]. Retrieved at <http://www.tearsofacop.com/police/articles/lewis.html>
- Martin, N. and Mishara, B. (2012, March 23). Effects of a comprehensive police suicide prevention program. Retrieved at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3380405>
- McCarty, W. P., & Skogan, W. G. (2012). Job-related burnout among civilian and sworn police personnel. *Police Quarterly*, 16(1), 66-84. <http://doi:10.1177/1098611112457357>

- McCreary, D. R., Fong, I., & Groll, D. L. (2017). Measuring policing stress meaningfully: establishing norms and cut-off values for the Operational and Organizational Police Stress Questionnaires. *Police Practice and Research, 18*(6), 612-623.
<http://doi:10.1080/15614263.2017.1363965>
- Ménard, K. S., Arter, M. L., & Khan, C. (2015). 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.
<http://doi:10.1080/01924036.2015.1028950>
- Ménard, K. S., & Arter, M. L. (2014). Stress, coping, alcohol use, and posttraumatic stress disorder among an international sample of police officers: Does gender matter? *Police Quarterly, 17*(4), 307-327. <http://doi:10.1177/1098611114548097>
- Ménard, K. S., & Arter, M. L. (2013). Police officer alcohol use and trauma symptoms: Associations with critical incidents, coping, and social stressors. *International Journal of Stress Management, 20*(1), 37-56. <http://doi:10.1037/a0031434>
- Miller, L. (2007). The psychological fitness-for-duty evaluation. *FBI Law Enforcement Bulletin, 76*(8), 10-16. Retrieved from
<http://search.proquest.com.ezproxylocal.library.nova.edu/docview/204144771?accountid=6579>
- National Institute of Mental Health (2014). Suicide in the U.S.: Statistics and prevention [webpage]. Retrieved at <http://www.nimh.nih.gov/health/publications/suicide-in-the-us-statistics-and-prevention/index.shtml>

- Nesvag, R., Lange, E. H., Faerden, A., Barrett, E. A., Emilsson, B., Ringen, P. A., . . . Agartz, I. (2010). The use of screening instruments for detecting alcohol and other drug use disorders in first-episode psychosis. *Psychiatry Res*, 177(1-2), 228-234.
<http://doi:10.1016/j.psychres.2010.01.007>
- Oehme, K., Donnelly, E. A., & Martin, A. (2012). Alcohol abuse, PTSD, and officer-committed domestic violence. *Policing*, 6(4), 418-430. <http://doi:10.1093/police/pas023>
- Parks, J. (2013, November 26). The perplexing silence of suicidal police officers. Retrieved at http://www.articles.philly.com/2013-11-26/news/44453343_1_officer-sean-quinn-more-officers-law-enforcement
- Paterson, H. M., Whittle, K., & Kemp, R. I. (2014). Detrimental effects of post-incident debriefing on memory and psychological responses. *Journal of Police and Criminal Psychology*, 30(1), 27-37. <http://doi:10.1007/s11896-014-9141-6>
- President's Task Force on 21st Century Policing (2015). *Final Report of the President's Task Force on 21st Century Policing*. Washington, DC: Office of Community Oriented Policing Services. Retrieved from https://cops.usdoj.gov/pdf/taskforce/taskforce_finalreport.pdf
- Ramchand, R., Saunders, J., Osilla, K. C., Ebener, P., Kotzias, V., Thornton, E., . . . Cahill, M. (2018). Suicide prevention in U.S. law enforcement agencies: A national survey of current practices. *Journal of Police and Criminal Psychology*. <http://doi:10.1007/s11896-018-9269-x>
- Robinson, L., Smith, M. and Segal, J. (2014, March). Suicide prevention: How to help someone who is suicidal. Retrieved at http://www.helpguide.org/mental/suicide_prevention.htm

- SAMHSA (2016). *Creating a Healthier Life: A Step-By-Step Guide to Wellness* [webpage]. Retrieved at <https://store.samhsa.gov/product/Creating-a-Healthier-Life-/SMA16-4958>
- Selye, H. (1956). *The stress of life*. New York, NY: McGraw-Hill
- Spence, D., Fox, M., Moore, G.C., Estill, S. & Comrie, N.Z.E.A. (2019). *Law Enforcement Mental Health and Wellness Act: Report to Congress*. Retrieved from <https://cops.usdoj.gov/RIC/ric.php?page=detail&id=COPS-P370>
- Tsai, L. C.-F., Nolasco, C. A. R. I., & Vaughn, M. S. (2017). Modeling job stress among police officers: interplay of work environment, counseling support, and family discussion with co-workers. *Police Practice and Research*, 19(3), 253-269.
<http://doi:10.1080/15614263.2017.1342091>
- Tuttle, B. M., Giano, Z., & Merten, M. J. (2018). Stress spillover in policing and negative relationship functioning for law enforcement marriages. *The Family Journal*, 26(2), 246-252. <http://doi:10.1177/1066480718775739>
- Tyagi, A., & Lochan Dhar, R. (2014). Factors affecting health of the police officials: mediating role of job stress. *Policing: An International Journal of Police Strategies & Management*, 37(3), 649-664. <http://doi:10.1108/pijpsm-12-2013-0128>
- Steckler, C. (2014, April). IACP: Breaking the silence on law enforcement suicides. Retrieved at http://www.policechiefmagazine.org/magazine/index.cfm?fuesaction=display_arch&article_id=2963&issue_id=72103
- Vila, B. (2009). Sleep deprivation: what does it mean for public safety officers? *NIJ Journal*, 262, pp. 1-6.

- Violanti, J. (2004). Predictors of police suicide ideation. *Suicide and Life-Threatening Behavior*, 34(3), 277-283
- Violanti, J.M., Charles, L.E., Hartley, T.A., Mnatsakanova, A., Andrew, M.E. & Fekedulegn, D. (2008). Shiftwork and suicide ideation among police officers. *American Journal of Industrial Medicine*, 51, pp. 758-68.
- Violanti, J. M. (2010). Police suicide: a national comparison with fire-fighter and military personnel. *Policing: An International Journal of Police Strategies & Management*, 33(2), 270-286. <http://doi:10.1108/13639511011044885>
- Violanti, J.M., Mnatsakanova, A. & Andrew, M.E. (2012). Behind the blue shadow: A theoretical perspective for detecting police suicide. *International Journal of Emergency Mental Health*, 14(1), 37-40.
- Vuorensyrja, M. & Malkia, M. (2010). Nonlinearity of the effects of police stressors on police officer burnout. *Policing: An International Journal of Police Strategies & Management*. 34(3), 382-402. <http://doi:10.1108/13639511111157474>
- Weiss, P. A., & Inwald, R. (2018). A brief history of personality assessment in police psychology: 1916–2008. *Journal of Police and Criminal Psychology*, 33(3), 189-200. doi:<http://dx.doi.org.ezproxylocal.library.nova.edu/10.1007/s11896-018-9272-2>
- Willis, D. (2014). *Bulletproof Spirit: The First Responder's Essential Resource for Protection and Healing Mind and Heart*. Novato, CA: New World Library.
- World Health Organization; Department of Mental Health and Substance Abuse. *Preventing suicide: A resource for police, firefighters, and other first line responders*. Retrieved at http://whqlibdoc.who.int/publications/2009/9789241598439_eng.pdf

Zavala, E., & Kurtz, D. L. (2017). Using Gottfredson and Hirschi's a general theory of crime to explain problematic alcohol consumption by police officers: A test of self-control as self-regulation. *Journal of Drug Issues*, 47(3), 505-522.

<http://doi:10.1177/0022042617706893>

Zavala, E. (2013). Testing the link between child maltreatment and family violence among police officers. *Crime & Delinquency*, 59(3), 468-483. <http://doi:10.1177/001128710389584>