

The Relationship between Law Enforcement Agency Size and Police Stress

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Abstract

Researchers have found that law enforcement officers often experience stress. The purpose of this quantitative study was to determine if the size of the law enforcement agency (small, medium, or large) had any significant influence on how police officers perceive stress in their profession from a cognitive appraisal perspective with regards to Administrative/Organizational Pressure, Physical/Psychological Threats, and Lack of Support. Members of law enforcement (N = 144) from Utah and New York were surveyed utilizing Spielberger, *et al.*'s Police Stress Survey. Archival data were provided by the National Police Suicide Foundation. Stress index scores were calculated manually for each survey completed, and then 3 separate ANOVAs were conducted to test the hypothesis. The results showed that officers from medium-sized departments perceive greater amounts of stress than those in large or small departments in the area of administrative/organizational pressure, while officers from large police departments perceived greater amounts of stress than their counterparts in small and medium-sized agencies in the areas of physical/psychological threats and lack of support. This study has implications for positive social change: understanding the stressors that police officer's face each day can help forensic psychologists understand the methods necessary to repair the strained relationship between the community and members of law enforcement; understanding the stressors can also open a pathway for researchers to begin the process of developing more a productive dialogue between police officers, their departmental leaders, and the communities they protect, which should begin during the early phases of academy training.

Keywords: Police; Psychology; Forensic; Stress; Cognitive Appraisal Theory; Lazarus and Folkman; Spielberger

Abbreviations

PSS: Police Stress Survey; CAT: Cognitive Appraisal Theory

Introduction

Stress is a universal concept and no living creature is immune to its effects. As human beings, stress begins from the moment of conception and is carried throughout the lifespan. Stress can affect relationships, job performance, academic achievements, and the ability to make healthy and rational decisions at the deepest emotional, and psychological levels [1-4]. The profession of law enforcement comes with a series of inherent risk factors that perpetuate situational stressors and negative outcomes, such as burnout, marital strife, heart disease, or the potential for substance abuse [3-5].

Police officers are more susceptible to workplace stress than any other profession, which include physical, emotional, and psychological discomfort, or a combination of all three [1,2]. The stressors that many police officers experience fall into three categories: administrative, physical, or lack of support, and within those categories are a number of more definitive subcategories [6,7]. Many researchers in

this area have demonstrated that police officers are most likely to develop a series of maladaptive coping strategies in response to these perceived stressors, such as excessive use of drugs and alcohol, withdrawal, isolation, outbursts of anger, and sadly suicide. It is worth noting that not every police officer responds to these stressors the same way [1,8-11].

Several behavioral reactions, for example, isolation, self-protection, and solidarity within the ranks, are consistent with studies that have been conducted into the police culture since the 1940s [12]. These reactions have also contributed to an emotional disconnection from others, and an increased distrust of the public. Conversely, the public does not seem to understand, or appreciate the stress that police officers must endure on a daily basis, and therefore tends to vilify them or label police officers as being prejudiced against specific populations, which, in turn, tends to perpetuate the negative police-community relationship [1,12].

An example of this negative perception of police by the public was demonstrated during the now infamous Ferguson, Missouri incident, where a White police officer shot, and killed a young Black male. The public expressed outrage saying that the officer had acted improperly and without due process. According to a report by National Public Radio journalists, Peralta and Calamur [13], the grand jury decided that after hours of deliberation, there was not sufficient evidence, or probable cause to indict Officer Wilson. As a result, many citizens saw all police officers as racist, thus prompting rioting, political, and civil outrage, negative media attention (CNN, NBC, CBS), and the formation of the Black Lives Matter movement [14]. According to Shjarback, *et al.* [14], this sparked many police officers to modify their normal practices of enforcing the law. This modification in the normal practice of police work has come to be known as *de-policing*, which will be explained in greater detail through the course of this paper.

For decades, understanding what stress is, how it is perceived, and how it affects members of the culture of law enforcement has been an area of concern for leaders in law enforcement, the public, families of police officers, and the officers themselves. How this perception of stress ultimately affects the way an officer copes with stress, either positively or negatively, is also an area of significant interest. Police work involves much more than the average citizen may understand or appreciate. While it is a generally accepted notion that the duties associated with the job are stressful, most police officers refuse to openly discuss their feelings about their jobs to their superiors, their families, and especially to the resident police psychologist for fear of stigmatization; they worry that their words will cost them in the long-run with regards to their careers [2,3,9,11,15].

Background

As researchers look to find a concrete definition of stress, it was best described as a reactionary state to an external event that causes an emotional, and/or psychological implosion that challenges an individual's innate ability to effectively cope with the perceived stressor [11]. The occupation of law enforcement is rife with inherent danger, such as the events that took place in Dallas (2016), where five officers were gunned down in cold blood by a sniper, or the murder of an officer in Baton Rouge just two days later. The stress associated with the profession is a series of situations and circumstances that oftentimes lead many police officers to develop and demonstrate a series of maladaptive coping mechanisms that place them and the public safety at risk. Coping refers to one's ability to cognitively and behaviorally overcome those internal and external demands associated with the perceived stressor in a positive and amiable manner (Youssef-Morgan and Ahrens, 2017). Reactivity to stress may lead not only to the development of depressive symptoms and other physiological issues but may put into motion a series of negative behaviors that will have equally or greater negative outcomes (e.g. alcoholism, excessive absenteeism, family conflict, suicide) [10].

The cognitive appraisal theory suggests that individuals will all respond differently to external events; therefore, how officers perceive stress associated within the culture of their profession will greatly determine how they identify themselves, and how they perform their specific duties at specific times [16]. A great deal of research has been conducted on the negative effects of police stress; the research implies how the culture of law enforcement factors into the way stress is perceived but does not specifically identify the culture as a factor [3,4,8,17].

What researchers do not know is what officers perceive as the most stressful component of their specific culture: administrative/organizational pressure, physical/psychological threats, or lack of support. Vander Elst, De Cuyper, Niesen, Baillien, and De Witte [18] suggested that one of the gaps in the literature centers around the fact that most of the studies on the phenomenon of stress tend to explore only a one-dimensional facet of it, but do not explore it from a primary and secondary point of view. This speaks to the evaluation of the stress by the police officer, and the subsequent coping strategies (perceived control) that is used to ensure a positive outcome [18].

Problem Statement

There is a significant amount of research on police stress, and the one thing that most researchers seem to agree on is that the occupation of law enforcement is one of the most stressful jobs in the world [11,8,19-21]. As a part of their duties, police officers are often called upon to confront and respond to situations that are potentially deadly, or at the very least traumatic in nature, which can have a detrimental effect on the officer's psychological, emotional, or physical health-not to mention their overall careers [20]. An example of these potential effects took place on July 5, 2016, when two Baton Rouge police officers responded to a call about a man outside a convenience store who had been brandishing a weapon and making threats to a customer. Upon arrival at the scene, the two officers instructed the suspect, Alton Sterling to lay on the ground. The suspect was caught on video resisting the instruction and was tasered, but to no effect. The officers wrestled the suspect to the ground, and the weapon he had been carrying was spotted by one of the officers, resulting in the suspect being shot and killed [22]. According to Visser [22], in the days that followed, there were protests in multiple cities, including Baton Rouge and Dallas, where five officers were ambushed, and killed by a sniper, Micha Johnson, as an act of protest against white police officers. Just 10 days later, another lone gunman, Gavin Long drove from Kansas City to Baton Rouge, and opened fire on five officers, killing three in response to the events that took place in Baton Rouge and Dallas [22].

These three examples may be considered extreme causes of stress in the life of a police officer. The problem is that there is no clear answer as to what a police officer identifies as stressful, nor does there seem to be any concrete solutions to their particular responses. Police officers must contend with life-and-death situations every day they wear the badge, and if you ask any cop, all she or he wants to do at the end of each shift is to go home to their loved ones. The primary question of this study is whether the size of the police department has any influence on what officers perceive as being the most stressful component of their profession?

Shjarback., *et al.* [14] informed researchers that as a result of incidents like the 2014 officer-involved shooting death of Michael Brown, an 18-year-old African-American male from Ferguson, Missouri; more and more police officers across the country are engaging in the act of de-policing, which has been defined as when officers disengage from the normal practices in which they are trained, in response to situations that could be perceived negatively by the public and media. This has become the preferred method of coping, or avoidance of further public scrutiny for many members of law enforcement across the United States [14]. De-policing following the events of Ferguson, correlates with research conducted by Moon and Jonson [17], with regards to an officer's lack of organizational commitment and deviation from accepted job norms. A recent event that encapsulates this concept would be the February 14th, 2018 Parkland school shooting, where the school resource officer did not engage the shooter. This level of inaction resulted in the deaths of fourteen students and three faculty members, according to Jackman [23]. There has been a great deal of speculation as to why the officer did not follow his training, but one inference could be that the officer was somehow engaging in the act of de-policing. The proliferation of smartphones and social media has also been a contributing factor to this disengagement from active policing following the events of Ferguson, because images of police officers involved in "controversial" behaviors have been disseminated worldwide, thus exacerbating the already strained relationship between law enforcement and the community ([14], p. 45).

Purpose of the Study

The purpose of this research was to explore the experiences of stress on members of law enforcement utilizing Spielberger's., *et al.* [6] police Stress Survey and connecting the findings to Lazarus and Folkman's [24] Cognitive Appraisal Theory (CAT) to determine whether there are any significant differences among officers working in small, medium, and/or large departments. For instance, the city of New Orleans is unlike any other in the entire world. The music, the culture, the food, and the people are just some of the main attractions, which brings people from all over the world to see. As a result, many police officers are often called upon to monitor, and maintain order

for any number of events taking place in the city (i.e. Jazz Fest, Mardi Gras, Essence Festival, Wrestlemania, and the Bayou Classic), which would be identified as extra-organizational stressors that have a negative impact on the officer and the department as a whole [8]. In many cases, police officers have little to no knowledge regarding the situation that they are about to walk into, and this uncertainty becomes an additional stressor to the one that they are about to face [25]. However, acute external events are not the only source of an officer's stress. There are also internal stressors within the organization that can affect an officer's job performance and overall attitude toward his or her peers, superiors, and the public, which can oftentimes result in job dissatisfaction and burnout (Schaible and Six, 2016).

Research Questions and Hypotheses

This study sought to answer the following three research questions:

RQ1: Are there significant differences between department sizes on their level of officer's perceived stress as it relates to administrative/organizational pressure?

H_0 : There is no difference between department size and perceived stress by members of law enforcement in relation to administrative/organizational pressure.

H_1 : There is a difference between department size and perceived stress by members of law enforcement in relation to administrative/organizational pressure.

RQ2: Are there significant differences between department sizes on their level of officer's perceived stress as it relates to physical/psychological threats?

H_0 : There is no difference between department size and perceived stress by members of law enforcement in relation to physical and/or psychological threats.

H_2 : There is a difference between department size and perceived stress by members of law enforcement in relation to physical and/or psychological threats.

RQ3: Are there significant differences between department sizes on their level of officer's perceived stress as it relates to lack of support?

H_0 : There is no difference between department size and perceived stress by members of law enforcement in relation to lack of support.

H_2 : There is a difference between department size and perceived stress by members of law enforcement in relation to lack of support.

Theoretical framework

The theoretical framework of this study was Lazarus and Folkman's [24] CAT. It has been defined as a lens through which the differentiation between positive emotional experiences and negative emotional experiences are seen, and will often determine or compel, an individual to react to a given set of circumstances in a very specific way [26]. Additionally, the CAT helps in understanding that for every person, his or her? emotion will elicit a different response, and that these responses are based primarily on individual subjective interpretations, which are identified as valence asymmetries. In these situations, it is generally the negative emotional response that wins over, as negative information tends to have a psychologically stronger impact [19].

Definition of terms

- **Cop culture:** Refers to the organizational culture that is structured with a series of social norms, and unwritten rules that dictate the way an officer functions and conforms [9].
- **De-policing:** A term used to describe police officers purposefully withdrawing from "proactive styles of law enforcement" ([14], p. 42).

- **Distress:** A multidimensional, unpleasant emotional experience brought on by physical, psychological, social and/or spiritual symptoms [27].
- **Eustress:** Moderate or normal psychological stress interpreted as being beneficial for the experiencer [28].
- **Extra-Organizational Stressor:** Any natural or human initiated occurrence that happens outside of the organizational boundaries and affect organizational functioning [8].
- **Neurophysiology:** A branch of physiology and neuroscience that is concerned with the study of the functioning of the nervous system [29].
- **Phylogenetic:** Relating to the evolutionary development and diversification of a species or group of organisms, or of a particular feature of an organism [29].
- **Psychological Contract Breach:** Refers to an individual's perception that the organization he or she works for has failed to meet their expectations, and that there will be no reciprocity for their efforts [18].
- **Stress:** A state of mental or emotional strain or tension resulting from adverse or demanding circumstances [30].
- **Stress Index:** For each item on the PSS, the officer rates the perceived stressfulness of experiencing the event from 0 to 100 (0 = no stress, 100 = maximum stress), which creates a stress rating for each event. The officer also provides the frequency of occurrence of each event over the past month (total frequency in past month) and past year (total frequency in past year). Multiply the rating by the frequency for past month, and for past year to get both values, which is known as the "stress index" (Violanti, 2018).
- **Valence Asymmetries:** Describes the differences in how humans process positive and negative information [19].

Assumptions

This study was subject to two assumptions. One was that regardless of demographics, police officers will identify with an equal amount of stress across all three categories of the Police Stress Survey- administrative/organizational pressure, physical/psychological threats, and lack of support-and that the way an officer perceives stress will be greatly determined by the culture of law enforcement. This study also assumed that all participants would be candid in their responses, without fear of reprisal by their respective peers, divisions, or department. As Schaible and Six (2016) have indicated, internal stressors within the organization that can have an adverse effect on an officer's relationship with his or her supervisors. Miller (2006) also informed us that police officer's generally hold the appraisal of their superiors in high regard, and frequently seek their approval; therefore, an officer may not wish to be candid in their responses on the survey for fear of alienating themselves.

Scope of the Study

This quantitative study utilized a nonprobability convenience sampling technique, where 245 officers from various law enforcement agencies were randomly selected at a voluntary training with the National Police Suicide Foundation. With convenience sampling I could obtain a sample from available members of a population [31]. While nonprobability samples are generally considered nonrepresentative of an overall population, this sample was considered representative because all participants were active duty members of law enforcement.

Limitations

The study's primary limitation was gaining access to other members of law enforcement from multiple regions across the country in order to compare and contrast the data from previous studies that used the PSS. Because this study was a survey design and the sample participants were randomly selected through the process of a convenience sampling, the major limitation of the study was ensuring that the participants would actually be members of law enforcement. However, since the participants are police officers attending voluntary training with the NPSF, this limitation was nullified.

Scope and delimitations

The delimitations of this study were understanding the interpretation of stress among members of law enforcement. An invitation was sent out to the National Police Suicide Foundation by the researcher and his supervising Chair, requesting their participation. The study focused on the three subscales of the Police Stress Survey [6]: administrative/organizational pressure, physical and/or psychological threats, and Lack of support, which was the instrument used in the study to measure and quantify the research questions.

Significance of the Study

The culture of law enforcement is heavily guarded and avoidant of contact with individuals outside of their circle of trust. The concept of stress is nothing new to the world of law enforcement but helping them to achieve a level of personal awareness and identify their reactions to stress have not been the subject of any investigation so far. By having a greater understanding what members of law enforcement identify as stressful, police leaders can now target those problem areas and develop more effective programs and offer more resources to officers in order to cope and implement positive change within their respective departments. The study could also be helpful for those individuals currently or potentially at risk for the development of a myriad of negative outcomes, because it could provide the necessary insight into how to recognize the symptoms of stress, implement effective coping strategies, improve job performance and reduce absenteeism.

Social Change

Bandura said that "Psychology cannot tell people how they ought to live their lives. It can however, provide them with the means for effecting personal and social change" [32]. For decades, the American public has held the institution of law enforcement in either of two perspectives: positive or negative. Over the last several years, the number of extraorganizational stressors encountered by members of law enforcement has increased exponentially, which has had an adverse effect on the relationship between the community and the police, resulting in "personal and societal damage" ([8], p. xxx).

For the average citizen, the life of a police officer may seem risky, but are generally unaware of the depth of stress that police officers experience on a daily basis, or the sacrifices these men and women make in order to protect human life and preserve public safety. The stress associated with such scrutiny from the public can ultimately affect the way an officer performs his or her duties and may also have a negative impact on his or her personal life (i.e. marriage, family, alcohol or drug abuse). Therefore, from a positive social change perspective, if an officer is able to better cope with perceived stress on the job, it stands to reason that this research could improve the police-community relationship, which has been severely damaged over the past several years by a number of high-profile, critical incidents. This can thereby have the effect of reducing or eliminating the negative perception the public has of the police.

Summary

The concept of stress is nothing new to the men and women of law enforcement. Every day brings with it new challenges, and these challenges do not always take place on the streets; oftentimes these challenges occur in the office or squad room. How that stress is resolved is generally determined by the written and unwritten norms of the cop culture. Stress can be either acute or it can be experienced over a period of time. What is considered stressful to one officer may seem mundane to another. As a result, these valence asymmetries dictate the responses to these perceived stressors.

Regardless of when stress occurs or how it may be perceived, it has a significant effect on the officer's mood, attitude, and performance-both on the job and at home, in terms of how an officer attends to the needs of their spouses, children or families. There is still no clear answer about what officers find or perceive to be the most stressful aspect of their profession. While there are many programs designed to assist members of law enforcement in coping with these stressors, they come after a crisis has already developed, rather

than before a problem develops. Many researchers have explored the effects of stress, but little has been done on the cause in order to develop preventative measures that could reduce issues of negative coping strategies, such as alcohol/substance abuse, excessive absenteeism, family conflict and poor relations with the community. This study seeks to identify those causes in order to find a correlation and determine if there is just one area of stress or if there are multiple areas that are experienced by officers, regardless of their professional demographics.

Materials and Methods

The purpose of this quantitative study was (a) to analyze the effect of stress among police officers, and (b) to determine if the size of the agency (small, medium, or large) has any influence on what police officers identify as stressful. CAT [24] was used for this study in order to address the gap in the literature, as the concept of appraisal theory has not been researched as it relates to how the culture of law enforcement contributes to an officer's perceptions of, and response to, stress. This study also built on a study conducted by Violanti and Aron [33], which also examined those factors in law enforcement that police officers find to be the most stressful. There have been many changes in the field of law enforcement over the last 22 years since the Violanti and Aron [33] study, and this study sought to compare those differences, in order to identify the areas that require attention.

Research design and justification

This research explored the perceptions of stress experienced by police officers during the course of performing their various duties and drew on inferences about how the culture of law enforcement contributes to, and influences, those perceptions. To accomplish this goal, a survey design was used because it was most appropriate for this study; it assists researchers with identifying "trends, attitudes, or opinions of a population" (Creswell, 2014, p. 249). As noted above, the profession of law enforcement does not always afford officers a time for activities outside of their normal, daily routines. Therefore, in order to conduct this research in a timely and efficient manner, it was prudent to use a research design that fit into a officers' busy schedules.

Sample information

Participants were selected utilizing a convenience sampling technique. Tongco (2007) suggested that a purposive sampling technique is the most efficient and effective method when studying a specific culture, because it assists researchers with ensuring that the data gathered is accurate, and that the participants of the study are reliable and competent, so as to avoid damaging the integrity of the study (Tongco, 2007). However, Rudestam and Newton [34] explained that when a researcher is looking for participants who will "contribute to an evolving theory" because they have experiences that are most relevant to the research questions, then a convenience sampling technique is the most appropriate ([34], p. 124). The only required characteristic of this particular sample population was that each participant was an active duty member of law enforcement.

Methodology

This study looked to clarify how stress is perceived and rated by police officers within the context of their occupation/culture, quantitative research was determined to be the most appropriate method for this research. Two hundred and forty-five members of law enforcement were asked to volunteer for this study. A letter of research intent was sent to the National Police Suicide Foundation (NPSF), asking for their assistance with the data collection process. Upon being granted permission by the NPSF, a sample packet of the PSS was sent, along with a disclaimer that explains that no actual demographic data about the participant would be gathered; however, each participant was asked to provide information about their age, years of service, and size of agency, in addition to completing the actual survey. As the researcher was not directly involved in the collecting of the data, the data is henceforth referred to as archival data.

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The National Police Suicide Foundation provides ongoing training for law enforcement personnel across the country. Research packets were distributed to study participants during those trainings. Participation in the study was completely voluntary. Initially the packets were mailed to the director of the foundation. Once completed, the packets were then returned to the researcher. Each packet contained an informed consent stating that participation was voluntary, and that by filling out the surveys, he/she was agreeing to participate in the study. It included information on the name and contact information of the director of the NPSF, should any questions or concerns regarding the survey arise.

Instrumentation

The data collection instrument utilized for this study was a hardcopy version of Spielberger's, *et al.* [6] Police Stress Survey (PSS), which is an instrument that consists of 60 items, and three subscales that assesses specific sources of stress: (a) administrative and organizational pressure (23 items) which includes satisfaction with departmental policies and procedures, fairness of rewards, performance, and the judicial system; (b) physical and psychological threat (24 items) which includes dangerous situations and experiences; and (c) lack of support (13 items) that includes political pressures and relationships with supervisor and coworkers. For the purposes of this study, stress was the dependent variable, which was determined through a rating system of 0 - 100, where the higher the number equals the greater the stress perceived for each item; whereas size of agency was the independent variable. No permission was required for the PSS, as Spielberger's, *et al.* [6] instrument is an open access government sponsored document, and as such is freely available for use in whatever manner is required, so long as it is cited properly. According to Martelli, Waters and Martelli [35] the PSS has an internal consistency reliability of .90 for both the administrative/organizational and physical/psychological stressors subscales. The administrative/organizational subscale showed statistical significance as it relates to measures of job satisfaction and organizational commitment [35].

Research Questions

The research questions to be answered in this study are as follows:

RQ1: Are there significant differences between department sizes on their level of officer's perceived stress as it relates to administrative/organizational pressure?

H_0 : There is no difference between department size and perceived stress by members of law enforcement in relation to administrative/organizational pressure.

H_1 : There is a difference between department size and perceived stress by members of law enforcement in relation to administrative/organizational pressure.

RQ2: Are there significant differences between department sizes on their level of officer's perceived stress as it relates to physical/psychological threats?

H_0 : There is no difference between department size and perceived stress by members of law enforcement in relation to physical and/or psychological threats.

H_2 : There is a difference between department size and perceived stress by members of law enforcement in relation to physical and/or psychological threats.

RQ3: Are there significant differences between department sizes on their level of officer's perceived stress as it relates to lack of support?

H_0 : There is no difference between department size and perceived stress by members of law enforcement in relation to lack of support.

H_2 : There is a difference between department size and perceived stress by members of law enforcement in relation to lack of support.

Threats to validity

As with any research study, no measurement is completely infallible. Therefore, threats to internal and external validity will exist, and must be accounted for. Creswell (2014) explained that researchers must explain the steps they will take to validate the “accuracy and credibility of their findings” within their respective proposals (Creswell, 2014, p. 201). The most significant consideration will be whether or not the changes in the independent variable are responsible for causality in the dependent variable. According to Creswell (2014), internal threats to validity result when a researcher’s “experimental procedures, treatments, or participant experiences” threaten to cause the researcher to make inaccurate inferences from the data collected on a specific population; whereas, external threats arise when the researcher generalizes beyond the groups/population not in the study (Creswell, 2014).

It was suggested in a study conducted by Violanti and Aron [33] that one internal threat to validity would be whether an officer will be completely honest in his or her answers regarding interdepartmental practices, such as how they feel about lack of administrative support, or disciplinary actions [33]. The reason why an officer may not offer a truthful answer to the questions posed on the survey is that they may fear their answers will have a negative backlash on their careers. To ensure complete anonymity, a disclaimer was posted in the introduction to the survey that will inform each participant that his or her individual responses will be kept confidential, and that no personal information will be gathered, or disseminated to any agency. However, the overall findings of the study will be provided to the NPSF to be used in future conferences.

Data analysis plan

Stress by its own definition is not just a single, one-sided factor; it is multifaceted, and complex, and therefore the reactions to it will be markedly different from one person to the next. To effectively examine the research questions of whether department size influences the perceptions of stress experienced by a police officers, three separate ANOVA's were conducted for each research question, where the stress index was the dependent variable, and size of department was the independent variable (3 levels: small, medium, large). SPSS software (IBM SPSS Statistics version 21; IBM Corp., 2012) [36] was used to perform the statistical analysis for this study. For each item, the officer rated the perceived stressfulness of experiencing the event from 0 to 100 (0 = no stress, 100 = maximum stress), which created a stress rating for each event. The officer also provided the frequency of occurrence of each event over the past month (total frequency in past month) and past year (total frequency in past year). Multiply the rating by the frequency for past month, and for past year to get both values, which is known as the “stress index”. The total stress index for each of the three subscales for the past month and the past year was used as the dependent variable.

Results and Discussion

Introduction

This section presents an analysis and explanation of results of the study that utilized Spielberger, *et al.*'s [6] Police Stress Survey. The purpose of this quantitative study was to examine the perceptions of stress related to the profession of law enforcement according to police officers from departments of three different sizes. The goal was to determine if there were any significant differences in what they identified as the most stressful aspect of their occupation. This was achieved through the use of archival data provided by the National Police Suicide Foundation. The research questions to be answered in this study were as follows:

- RQ1: Are there significant differences between department sizes on their level of officer’s perceived stress as it relates to administrative/organizational pressure?
- RQ2: Are there significant differences between department sizes on their level of officer’s perceived stress as it relates to physical/psychological threats?
- RQ3: Are there significant differences between department sizes on their level of officer’s perceived stress as it relates to lack of support?

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Setting

Each of the participants who volunteered for the study were police officers from various regions across the United States. At the time, they were taking part in voluntary training conducted by the National Police Suicide Foundation.

Demographics

There were 93 male police officers, and 51 female officers surveyed in this study. Fifth-eight officers were from a large police department, 68 were from a medium-sized police department, and 18 were from a small police department. The ages of the participants ranged from 25 to 67, with a mean age of 44. The years of service ranged from 1 to 38 years, with a mean of 15.5 years.

Data Collection

Before conducting the survey, a thorough literature review was conducted. It showed that there were substantial research findings into what had previously been identified by police officers as the most stressful aspect of their profession. According to a 2016 report by the Bureau of Justice Statistics (BJS), there are 18,000 federal, state, county, and local law enforcement agencies in the United States, which employ over 1 million active-duty officers (BJS, 2016). Recognizing that it would be impossible to survey each of these agencies, I sought to sample a number that would provide a satisfactory representation of the population. A power analysis for an analysis of variance (ANOVA) with five levels and two dependent variables was conducted in G*Power to determine a sufficient sample size using an alpha of 0.05, a power of 0.80, and a medium effect size ($f = 0.25$); [37]. Spielberger, *et al's* (1981) Police Stress Survey (PSS) identified three subscales as areas of most significance: administrative/organizational pressure, physical/psychological threats, and lack of support.

A total of 245 participants from Utah and New York were invited to take part in the research; however, only 144 completed the PSS during their attendance at a voluntary training seminar conducted by the National Police Suicide Foundation between May and June 2018. I utilized archival data collected from the Police Stress Survey [6] that was completed by participants attending voluntary training conducted by the NPSF. The response rate for the survey was at 60% due to the fact 101 participants were not active members of law enforcement. Upon completion of the surveys, the packets were mailed to the me, where the Stress Index scores were calculated manually for each survey completed, and then entered into the SPSS dataset in order to run the analyses.

Each participant was provided an informed consent, which was attached to the survey booklet. Each participant understood that their participation in the survey was completely voluntary, and that they could choose not to take part in the research with no worry of reprimand from their command and would have no effect on their involvement in the training being conducted by the NPSF. Participants understood that no personal information would be collected or disseminated to any organization or person prior to the completion of the survey. Each packet was assigned a numerical value, which also served as a participant identification number to be used during the data analysis stage [38-85].

Data analysis

There are several assumptions that must be met to ensure valid results, including (a) stress index scores were normally distributed for police officers within Small, Medium, and Large departments, (b) participants represented a random sample of their respective populations, (c) small, medium, and large stress index scores were independent of each other, and d) the variances of the stress index scores in the Small, Medium, and Large departments were equal. There was no evidence to suggest that these assumptions were violated, therefore a one-way ANOVA was appropriate because it was used to compare the differences between three or more means for independent groups.

Administrative/organizational pressure

A one-way ANOVA was conducted to test the hypothesis of whether department size has a significant difference in a police officer's level of perceived stress as it relates to administrative/organizational pressure within three different sized departments. One assumption

of the one-way ANOVA is that all groups have equal variances. The result of the test produced an F statistic of 2.82 (past month) and has a p of .062. Since the p value for the past month is greater than a standard alpha level of ($p > .05$), we can infer that the variances did not differ and that the assumption of equal variances was met. We can also fail to reject the null hypothesis, and can say the result is statistically non-significant $F(2, 141) = 1.54, p = .219, \eta^2 = .021$. This non-significance may be a result of the relatively small sample size ($N = 144$).

However, the result of the test also produced an F statistic of 3.11 (past year) and has a p of .05. Since the p value for the past year is less than or equal to the standard alpha ($p \leq .05$), thus we reject the null hypothesis, and say the result is statistically significant $F(2, 141) = 1.42, p = .245, \eta^2 = .020$. For this reason, the results of the Tukey HSD post hoc test were examined. Table 1 shows the means, standard deviations, and 95% confidence intervals generated by the Tukey HSD test. The Tukey test indicated that Medium sized departments perceived stress much more significantly than Large departments ($MD = 2.79, p = .996$). The 95% confidence interval estimate the differences between these means ranged from -184.86 to 184.86. As this interval does not contain zero it suggests a real difference between the population stress index scores. Although there is some evidence to suggest that police officers from Medium sized departments perceive stress in the area of administrative/organizational pressure much more significantly than officers working in Large departments, the small sample size prevents a conclusive interpretation. It is recommended that this study be repeated with a larger sample size.

Physical/psychological threats

A One-Way ANOVA was conducted to test the hypothesis of whether department size has a significant difference a police officer's level of perceived stress as it relates to physical/psychological threats within three different sized departments. The assumption of the One-Way ANOVA is that all groups have equal variances. The result of the test produced an F statistic of .746 (past month) and has a p of .476. Additionally, the result of the test also produced an F statistic of 1.43 (past year) and has a p of .243. Since the p values for both past month and past year is greater than a standard alpha level ($p > .05$), we can infer that the variances did not differ and that the assumption of equal variances was met. We can also fail to reject the null hypothesis, and say the result is statistically non-significant $F(2, 141) = .332, p = .718, \eta^2 = .005$. This non-significance may be a result of the relatively small sample size ($N = 144$).

Lack of support

A one-way ANOVA was conducted to test the hypothesis of whether department size has a significant difference a police officer's level of perceived stress as it relates to lack of support within three different sized departments. The assumption of the one-way ANOVA is that all groups have equal variances. The result of the test produced an F statistic of 3.13 (past month) and has a p of .05. Since the p value for the past month is less than or equal to the standard alpha ($p \leq .05$), the null hypothesis is rejected and the result is statistically significant $F(2, 141) = .674, p = .511, \eta^2 = .009$. For this reason, the results of the Tukey HSD post hoc test were examined. Table 1 shows the means, standard deviations, and 95% confidence intervals generated by the Tukey HSD test. The Tukey test indicated that large-sized departments perceived stress much more significantly than Medium departments ($MD = 53.62, p = .506$). The 95% confidence interval estimate the differences between these means ranged from -167.39 to 167.39. As this interval does not contain zero it suggests a real difference between the population stress index scores. Although there is some evidence to suggest that police officers from large-sized departments perceive stress much more significantly in the area of Lack of Support than officers working in medium-departments, the small sample size prevents a conclusive interpretation. It is recommended that this study be repeated with a larger sample size. The result of the test also produced an F statistic of 2.54 (past year) and has a p of .08. Since the p value for the past year is greater than a standard alpha level of .05, we can infer that the variances did not differ and that the assumption of equal variances was met. I can fail to reject the null hypothesis, and say the result is statistically non-significant $F(2, 141) = .589, p = .556, \eta^2 = .008$. Again, this non-significance may be a result of the relatively small sample size ($N = 144$).

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	Size of Agency	Mean	Std. Deviation	Sig.	N
Administrative/Organizational Pressure - Past Month	Small	155.8642	83.24	0.062	19
	Medium	232.7928	185.83114	0.107	68
	Large	229.9991	184.64083	0.107	57
	Total	221.5367	176.25182	0.087	144
Physical and/or Psychological Threats - Past Month	Small	150.0479	172.7888	0.476	19
	Medium	195.46	266.81006	0.678	68
	Large	181.0114	155.25769	0.679	57
	Total	183.7489	216.26497	0.62	144
Lack of Support - Past Month	Small	189.9626	101.97043	0.047	19
	Medium	239.8724	195.24222	0.095	68
	Large	243.5879	183.91796	0.095	57
	Total	234.7578	180.90228	0.066	144
Administrative/Organizational Pressure - Past Year	Small	498.1416	282.94537	0.048	19
	Medium	655.5456	491.15944	0.154	68
	Large	710.8865	507.74588	0.155	57
	Total	656.6828	478.09515	0.069	144
Physical and/or Psychological Threats - Past Year	Small	491.4347	442.55143	0.243	19
	Medium	452.3837	350.51546	0.204	68
	Large	548.6246	407.73031	0.204	57
	Total	495.6316	386.43322	0.215	144
Lack of Support - Past Year	Small	573.6553	330.43915	0.082	19
	Medium	648.5744	538.1954	0.226	68
	Large	710.3239	495.53509	0.226	57
	Total	663.1317	497.66454	0.118	144

Table 1: Descriptive statistics.

Areas of interest

As it has been indicated several times through the course of the research, the PSS is divided into three subscales: administrative/organizational pressure, physical/psychological threats, and lack of support. Within each of these subscales, there emerged several points of interest that were consistent regardless of the agency size (small, medium, or large). Of the 144 participants of the study, 130 members of law enforcement identified that Insufficient Manpower to Adequately Handle a Job had a mean stress index score of 371, with the second highest being Excessive Paperwork with a mean stress index of 360 as rated by 118 participants. Additionally, under the subscale of physical/psychological threats, two areas that garnered the highest scores were a) Dealing with Family Disputes and Crisis Situations, which received a mean score of 664.2, as rated by 114 participants; and b) Situations Requiring Use of Force, which had a mean score of 73.3.

An interesting caveat to this subscale, was that of the 144 participants, only a total of 6 officers identified killing someone in the line of duty as being stressful, with a mean score of 75. The lack of this particular stressor becomes significant, as it opens the door for

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exploration into the widely perceived public opinion that all police officers engage in the use of deadly force, and it worth noting that the difference in the number of officers involved in such an event between agencies was not significant. Finally, under this subscale of lack of support, the three most prominent areas of perceived stress were a) inadequate support by supervisor, with a mean score of 275.6 as identified by 105 officers; b) inadequate support by department, with a mean score of 272.7 as identified by 109 officers; and c) poor or inadequate supervision, with a mean score of 312.7 as identified by 78 officers.

Summary

This section provided a description of the setting, demographics, data collection, and data analysis of this research study. The archival data provided by the National Police Suicide Foundation was manually scored and imported into the SPSS software dataset. The SPSS software assisted in organizing and analyzing the aforementioned stress index scores of 144 participants. The survey scores provided insight into what individual officers perceive as being the most stressful aspect of their profession and solidifies the concept of Lazarus and Folkman's [24] Cognitive Appraisal Theory that each person will interpret stress differently, therefore their reactions to those stressors will also be different. However, as this researcher had no actual contact with the participants during the administration of this survey, there was no way to ascertain what those responses were in order to determine whether they would be classified as either positive or negative.

Conclusion

The results of this research have contributed to the existing literature, in the sense that it has increased an awareness into what today's police officer perceives as the most stressful aspect of their profession. As it has been shown through the literature review of this dissertation, there have been numerous studies into the concept of police stress, and how it affects officers psychologically, physically, and emotionally. However, little to no research into how officer's from differing sized departments perceive stress has been conducted in order to determine if there are any significant differences in how stress is perceived.

The research questions provided insight into the concept of police stress and offered a deeper understanding of what appears to be most meaningful in terms of appraisal. Police officers, as with any other profession, want to feel safe and secure in their environments, and they want to feel that they are going to be provided with the necessary equipment and manpower to perform their duties. They also want to feel secure in the notion that they are supported by their supervisors, are given proper training and supervision, and mostly that in these dangerous times they are cared for and not abandoned. By identifying these sources of stress, forensic psychologists can work on developing healthier mechanisms of coping for police officers, thereby reducing the physiological side effects (e.g. cardiovascular disease, impaired motor skills, gastrointestinal issues, excessive absenteeism due to physiological issues). Most importantly, police officers want to feel secure in their positions within the communities they serve. Positive relationships with the community can improve some of the distorted perceptions of law enforcement expressed by citizens via social media and can begin to heal the rift that has widened over the past several years. It must be noted that law enforcement administrators are not solely responsible for repairing these relationships, rather it must be a collaborative effort between the departments, the officers, administration, forensic psychologists, and the public as well.

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Conflict of Interest

Not applicable.

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