A QUANTITATIVE STUDY ON OPERATIONAL AND ORGANIZATIONAL STRESS ON GAME WARDENS

by

Lori A. Perez

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

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APPROVED BY:

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ABSTRACT

There has been a notable gap in research concerning stress among game wardens within the law enforcement field. Game wardens encounter operational and organizational stressors similar to those faced by traditional law enforcement officers. Previous research on stress in game wardens has predominantly focused on operational stress, the transition of their duties towards more traditional law enforcement roles, and various stress-inducing factors. This quantitative study utilized the Police Stress Questionnaire (PSQ) survey to analyze both operational and organizational stress in Maine Game Wardens. The research aimed to address two primary research questions: firstly, examining organizational and occupational stress utilizing the PSQ, and secondly, investigating whether a game warden's years of experience correlates significantly with organizational or occupational stress in Maine Game Wardens. The study involved current Maine Game Wardens who participated through in- person, paper surveys. A 100% response rate was achieved from the surveyed Game Wardens, with approximately sixty out of a hundred Maine Game Wardens completing the survey. Through statistical analyses using the One-Sample t-tests and One-Way ANOVA, it was established that organizational stress exerts a slightly impact than operational stress, with years of service in the field notably influencing stress levels—specifically, the period of 11-20 years of service showing the most significant impact. While this research contributes to the existing body of knowledge on stress among game wardens, further research is warranted to gain a deeper understanding of stress influences within this population.

Keywords: game warden, organizational stress, operational stress, police stress questionnaire-organizational and operational, years of service.

Copyright Page

Dedication

Dedicated to those whose support and guidance made this journey possible. To my husband, Jay Perez. I couldn't have done this without you. Thank you for your support through this process, and believing in me. To Jake and Cooper, thank you for being patient with me these past three years, I am so proud of the young men you both are. Finally thank you to the Maine Warden Service to allowing me this opportunity to take a hard look into a profession that is rarely researched. Your agency sets the bar high.

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To Dr. Orr, thank you for your unwavering belief in my abilities and your mentorship as Chair challenged and inspired me every step of the way. To Dr. Dennis, your course on stress in policing inspired me to explore the complexities of stress in game wardens, thank you for inspiration and being part of this dissertation process.

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LIST OF ABBREVIATIONS

All-Terrain Vehicles (ATV)

Analysis of Variance (ANOVA)

Institutional Review Board (IRB)

Game Warden (Warden)

Maine Inland Fisheries and Wildlife (IFW)

Officer Involved Shooting (OIS)

Police Stress Questionnaire- Operational (PSQ-OP)

Police Stress Questionnaire-Organizational (PSQ-ORG)

Post-Traumatic Stress Disorder (PTSD)

CHAPTER ONE: INTRODUCTION

Overview

Game wardens, also referred to as conservation officers or wildlife officers, play a critical role in wildlife protection and law enforcement within natural habitats. Their office is primarily the outdoors, where they spend most of their time. This may appear idealistic for many; however, they are often faced with unique stressors that can be more challenging than those experienced by traditional law enforcement officers.

Like other law enforcement professionals, game wardens encounter situations of conflict, from confronting poachers to handling potentially dangerous wildlife encounters. Additionally, they often work in isolated environments with minimal backup, face unpredictable weather conditions, and sometimes deal with the trauma of witnessing the aftermath of all-terrain motor vehicle accidents (ATV/Snowmobile), watercraft, and recovery of dead bodies in the wilderness. The nature of their job also places them in the heart of natural disasters and search and rescue operations, with limited warning, and places them in dangerous situations, which can contribute to stress.

Despite the unique nature of their roles, there has been limited comprehensive research on the stressors game wardens face, particularly compared to traditional policing. Understanding this stress is crucial, not only for the wardens' well-being but also to ensure the effective and ethical execution of their duties. To gain deeper insights into the stress experienced by game wardens and its potential variations across different demographics, this study will utilize the Police Survey Questionnaire-Organizational and Operational instruments. These tools will help assess occupational and organizational stressors, comparing their impact and examining how

they relate to each other and the demographics of Maine Game Wardens, particularly concerning their field experience. This study will mainly focus on current full-time Maine Game Wardens and its relation to both occupational and organizational stress. This research aims to delineate any statistical relationship between years in the field and the stress levels encountered by both occupational and organizational. It also aims to enhance understanding of organizational and occupational stress's impact on Maine Game Wardens.

Background

Maine State Game Wardens

State game wardens, also referred to as Environmental Police, Wildlife Officers, or Department of Natural Resource Officers, are commonly integrated into state government structures across the country. Most operate within dedicated conservation departments focusing on wildlife and natural resource protection. Every state is ecologically unique in the protections required to protect the resources; however, generally, the state game warden's primary responsibility is to protect the fish, wildlife, and natural resources (Eliason, 2014). These protections are guided by legal precedent and are codified in law, requiring that game wardens have law enforcement duties to perform their duties. They protect the resources through compliance checks on licenses, surveillance against illegal hunting methods such as bait piles and illegal tree stands, running decoys including deer, grouse, moose, and elk, and other patrol techniques unique to game wardens. These methods create a balance between educating and punishing those who violate wildlife laws.

In Maine, game wardens have the same powers as a sheriff deputy and can arrest, summon, and prosecute individuals who violate Title 12 Wildlife Statutes or Title 17-A Maine Criminal statutes, a civil violation, or traffic violations (Title 12, Conservation, 2007). Their

duties, as outlined in Title 12 (2007), are to enforce Part 13, Inland Fisheries and Wildlife, of Title 12, the Migratory Bird Treaty Act, and all regulations established by the Commissioner of Inland Fisheries and Wildlife (Title 12, Conservation, 2007). Title 12 covers a wide range of topics related to the natural resources of the state, including laws and regulations concerning hunting, fishing, trapping, public lands, and related activities. Laws include requirements for licensing, type of firearms required, specific regulations around take of different species, times of days/days allowed to hunt, trap, and laws forbidding different types of takes of wildlife and fish.

The Maine Warden Service (Warden Service) falls within the Bureau of the Warden Service, a division within the Department of Inland Wildlife and Fisheries. The Warden Service has a designated capacity of 125 personnel: however, this number experiences fluctuations due to retirements and attrition. The Warden Service is broken down into five field operational divisions and eight specialty teams, protecting over 1.3 million residents of Maine. They patrol an expansive area of approximately 33,215 square miles, almost bigger than all five New England states (Maine Government, 2023, *Organizational Structure: Warden Service: Maine Dept of Inland Fisheries and Wildlife*, 2023). The organization is structured with a Colonel, who is at the top, with their primary role as administering the duties and powers of the bureau (*Organizational Structure: Warden Service: Maine Dept of Inland Fisheries and Wildlife*, 2023). Below the Colonel is the Game Warden Major, responsible for supervising the five-field operation division. There are five Game Warden Lieutenants who supervise one of the five field division offices as well as the non-uniformed wardens. Game Warden Sergeants are below the Lieutenants, and they supervise six to seven warden districts and the game wardens who patrol their assigned districts (*Organizational Structure: Warden Service: Maine Dept of Inland Fisheries and Wildlife*, 2023).

Since 1936, Maine has been known as "Vacationland," a premier location for vacationers who come to recreate outdoors. In 2022, over 15 million people visited Maine, contributing to nearly $5.6 billion to Maine's economy (*2022 Maine Office of Tourism Highlights*, 2023). Throughout the United States, the number of people participating in outdoor activities grew by 2.2% in 2021, with the highest number of participants on record, with over 164.2 million people, representing 54% of the population (Outdoor Foundation, 2022). According to the Office of Outdoor Recreation, outdoor recreation in Maine makes up 3.6% of Maine's economy, which is one of the top five states in the value of outdoor recreation added to the state Gross Domestic Product (GDP) (*Maine Office of Outdoor Recreation | Department of Economic and Community Development*, 2023). Maine has a strong hunting tradition, reflected in the number of people participating. According to the United States Fish and Wildlife Service, hunting has increased across the country, with 207,849 hunting licenses sold in Maine, an increase in the past twenty years (United States Fish and Wildlife Services, 2023).

In 2022, 334,035 fishing licenses were purchased in Maine, the second highest recorded in the history of keeping records of licenses (United States Fish and Wildlife Services, 2023). Maine State Game Warden's primary focus is to enforce Title 12, consisting of conservation statutes that include hunting and fishing laws. They ensure compliance by patrolling the rural mountains of Maine to the urban metropolitan cities within the state. They conduct these patrols by foot, ATV, snowmobile, boat, and vehicle.

Stress

Minimal research has been done on state game wardens and the impact of occupational and organizational stress (Falcone, 2004; Eliason, 2014). The research that has been conducted focuses on the recent change in Game Warden duties and how this shift from more traditional

conservation law enforcement work to traditional law enforcement duties has affected the Game Warden's stress levels. Research on stress in law enforcement has been abundant, especially in the past decade, with the increased attention on the mental health of first responders (Violanti et al., 2016; Violanti et al., 2019). The effects of stress have also been well documented to have an impact on both an individual's mental and physical well-being.

Organizational stress within law enforcement refers to the strain and pressure that police officers and other law enforcement personnel experience due to their organizations' structural, cultural, and operational aspects. This is different from operational stress, which is derived from the inherent dangers and critical incidents that come with the job itself, such as violent confrontations or exposure to traumatic scenes.

Operational stress refers to the strain and tension experienced by law enforcement personnel from the inherent dangers and critical incidents intrinsic to their job. Unlike organizational stress, which is rooted in the structure and culture of their agencies, operational stress is directly tied to the day-to-day tasks and challenges of policing and its related duties.

Law enforcement officers often confront situations that most individuals rarely encounter, such as violent confrontations, high-speed chases, domestic disputes, and exposure to severe injury or death. These experiences, whether commonplace or sporadic, can induce significant psychological and emotional strain. Moreover, the constant need to be alert and the unpredictability of potential threats can maintain officers in a perpetual state of heightened vigilance, further contributing to their stress levels.

Like traditional law enforcement, game wardens are often confronted with dangerous situations. However, most times, they are in remote areas with limited backup. The need to be

alert due to the unpredictability of evolving hunter compliance checks that often involve firearms, as well as working independently and in remote locations, can further contribute to stress in game wardens.

Problem Statement

The nature of policing exposes officers to dangerous situations, witnessing violent, traumatic events, and life-threatening situations (Violanti & Steege, 2020). Academic literature has thoroughly investigated the issue of stress in law enforcement; 191 scholarly papers have been published discussing stress and burn-out in policing, with roots tracing back to the 1970s (Queirós et al., 2020). Research has shown that law enforcement officers are 69% more likely to die from suicide than workers in different occupations (Violanti & Steege, 2020). However, there is a gap in the literature in understanding the organizational and occupational stressors that may impact Game Wardens. Game Wardens are fully sworn law enforcement officers responsible for safeguarding the natural resources in their jurisdiction. The role of a Game Warden is multifaceted, as their duties include conducting compliance checks on hunters and fishermen, participating in search and rescue, and fulfilling traditional law enforcement duties.

Game Wardens frequently operate independently in remote areas, where the immediate backup is often inaccessible. According to Forsyth (2008), a conservation officer's job is just as dangerous as a traditional law enforcement job. In Maine, more Game Wardens have died in the line of duty than any other law enforcement agency (Maine Line of Duty Deaths, 2023).

The limited research on conservation officers has primarily aimed to understand the stress implications of their evolving role. Specifically, there has been a significant shift from a conservation law enforcement focus to traditional law enforcement duties over the past two

decades (Falcone, 2004; Eliason, 2014). The lack of literature exploring potential stressors affecting Game Wardens is concerning, given that these professionals are present in every state, charged with the crucial task of safeguarding natural resources, as well as the dangerousness of the job. Gaining a more comprehensive understanding of occupational or organizational stressors is crucial in enabling agencies to equip wardens with the resources needed to alleviate stress. Demographics and stressors constitute the main issue and are the variables in question.

At present, no research or equation provides insights into the relationship between organizational and occupational stress and how field experience impacts the occupational and organizational stress experienced by game wardens. Ledford et al. (2021) explored the impact of individual characteristics and changing job roles on stress from 368 conservation officers from six states.

The study supported previous research that found that the more often a conservation officer performs traditional law enforcement duties, the higher the perceived stress. However, they found that with the increase in age, the impact of stress was less (Ledford et al., 2021). They noted that future research should expand on the perceptions of organizational stress among conservation officers. The absence of research in this field hinders conservation agencies' ability to adequately invest in game wardens' mental well-being.

Purpose Statement

This quantitative, descriptive study seeks to examine the extent of operational and organizational stress experienced by game wardens, utilizing the Police Stress Questionnaire (PSQ-ORG and PSQ-OP) as the instrument of measurement. The study is designed to measure and describe the existing operational and organizational stress levels among game wardens

without engaging in manipulative interventions. The primary objective is to explore the sources of operational and organizational stress within the game warden profession, to measure these stress levels quantitatively, and to discern which aspects of their work are more stress-inducing. This investigation will facilitate the identification of specific operational and organizational stressors contributing to the overall stress landscape among game wardens.

Furthermore, this study is designed to examine the influence of experience on organizational and operational stress among game wardens. The goal is to discern whether a correlation exists between the experience level and the magnitude of stress experienced. This examination will involve an analytical review of data collected, centering on the critical variables of stress and experience as measured through the PSQ-ORG and PSQ-OP.

Significance of Study

The significance of this study is grounded in the potential to contribute to a deeper understanding of the occupational and organizational stressors experienced by game wardens and the influences that might exacerbate or mitigate these stress levels. Improving the understanding of the sources of stress in game wardens will equip both the wardens and the administration with a more comprehensive knowledge of the factors leading to stress. Although substantial research has been conducted to comprehend job-related stress in traditional police officers, the exploration of such stress from a game warden's perspective remains relatively under-studied (Oliver & Meier, 2006; Eliason, 2006; 2014; 2016). Ledford et al. (2020) recommend that future research consider organizational stress perceptions. Given the unique nature of their work, game wardens may face specific stressors that are not thoroughly examined in the general law enforcement literature. Research on traditional law enforcement officers suggests that

organizational stress can precipitate burn-out. Thus, this study can fill a gap in existing research and provide valuable insights applicable to this game wardens.

Research Questions

The research was guided by two research questions that examined the organizational and occupational stress using the Police Stress Questionnaire, as well as whether the experience of a game warden has a statistical significance on organizational or occupational stress in game wardens.

(**RQ1**): *Do Maine Game Wardens experience higher levels of operational stress compared to organizational stress, as assessed by the Police Stress Questionnaire Operational and Organizational?*

(**RQ2):** *Does years of service moderate the perception of stress in Maine Game Wardens as it pertains to the Police Stress Questionnaire-Operational and Police Stress Questionnaire-Organizational?*

Definitions

1. *Game Warden*: is a type of specialized policing whose primary responsibility is to enforce state wildlife laws and regulations, mostly in rural and remote areas (Eliason, 2014).
2. *Conservation Officers: Conservation* officers are categorized as fully empowered state officers with statewide jurisdiction who enforce natural resource laws (Falcone, 2004).
3. *Maine Game Warden:* Are state-commissioned law enforcement officers employed by the Department of Inland and Fisheries whose primary duties are to determine compliance with Maine state hunting, fishing, boating, and all-terrain vehicle laws to protect the fish and wildlife of Maine *(*Title 12, §10353: Duties and Powers, 2009).
4. *Occupational Stress:* Stress caused by factors related to performing the job (Violanti, 1983).
5. *Organizational Stress:* Stress caused by those factors within the organization, including but not limited to employment, scheduling, supervision, and internal culture (Violanti, 1983).
6. *Rural Policing:* is shaped by the nature of rural crime and the features that distinguish rural culture and rural life (Weisheit et al., 1994).
7. *Stress: is* a negative physical and psychological reaction to a lack of fit between individuals and their environment (Bardoel et al., 2011).
8. *Person-Environment Fit Theory:* Person-Environment Fit Theory defines stress as a perceived mismatch between the environment and the person's values, desires, or goals (Harrison, 1978).

9. *Post-Traumatic Stress Disorder:* Individuals who have PTSD may exhibit increased impulsiveness and reduced inhibitions due to difficulties in processing information during critical moments (American Psychiatric Association, 2013).

10. *Organizational Police Stress Questionnaire-PSQ-Org:* McCreary and Thompson's Police Stress Questionnaire-Organization (PSQ-Org) is used for data collection in research. The PSQ-Org is a self-assessment tool consisting of 20 items. It is intended to evaluate stressors related to the organizational aspect (i.e., job context) in the profession of police officers (McCreary & Thompson, 2006 & Shane, 2010)
11. *Operational Police Stress Questionnaire-PSQ-OP:* McCreary and Thompson's Police Stress Questionnaire-Operational is used for data collection in research. The PSQ-OP consisted of using a 7-point Likert-type scale. Police officers rated their responses to the questions, with 1 representing 'no stress at all' and seven signifying 'a lot of stress'. The PSQ-Op is a self-administered tool comprising 20 items. Its purpose is to evaluate operational stressors (i.e., job content-related) pertinent to the role of police officers (McCreary & Thompson, 2006 & Shane, 2010).

CHAPTER TWO: LITERATURE REVIEW

Overview

The history of game wardens traces back to medieval England, with regulations set by monarchs to curb illegal hunting or poaching on crown land. Maine emphasized conservation in 1843 by introducing county fish wardens and, later, in 1880, game wardens to protect deer and moose, with the Maine Warden Service established in 1880. Game Wardens frequently patrol remote areas alone, facing challenges distinct from traditional policing. Despite unique stressors, there is a notable research gap concerning stress and Game Wardens.

The Person-Environment Fit Theory, grounded in organizational psychology, suggests that workplace stress results from discrepancies between an employee's abilities, objectives, and the demands and resources of their work environment. This misalignment can lead to detrimental health outcomes, stress levels, job satisfaction, and staff turnover. The alignment between officers and their organizational environment is significant in law enforcement. Officers struggling to align their values with those of the organization may experience increased stress and reduced job satisfaction and may consider other career options. Rural police officers, like their urban counterparts, face organizational stress but with challenges unique to their geographical context. While much research has centered on urban departments, the internal organizational environment, including bureaucracy, promotion processes, and feelings of value, emerges as the primary stressor in law enforcement rather than the nature of the job itself. Occupational and organizational stress in law enforcement can have physical and psychological ramifications. Officers are at risk of emotional and mental challenges, such as hyperarousal,

which can impair decision-making and escalate impulsivity. Such heightened states, often linked to PTSD, can render individuals reactive even without imminent threats.

Furthermore, studies consistently highlight the detrimental effects of stress on officers, from physiological issues like heart diseases and certain cancers to psychological distress like anxiety, depression, and PTSD. Recent research highlights how individual attributes in law enforcement correlate with stress. Older officers, especially those with more seniority, report heightened stress. Gender dynamics indicate that while female officers often mirror their male colleagues in behavior, they experience increased stress from physical and psychological threats. Marital stability can buffer operational stress, and emotional intelligence, influenced by factors like rank and self-motivation, plays a pivotal role in managing stress. A higher educational background within the police force correlates with a decreased risk of PTSD and reduced alcohol consumption, underscoring its importance in bolstering resilience. While age often diminishes stress, prolonged service years can amplify it, indicating a nuanced relationship between experience and age-related coping mechanisms. Game Wardens, patrolling rural areas often alone with limited backup, face unique stressors different from urban police due to distinct rural crimes and cultures. Although research on these wardens has been limited, studies have shown that their job is perceived as physically threatening. Factors like being female, unmarried, lacking higher education, and without military experience amplify stress levels for these officers.

Moreover, performing traditional police tasks and having longer service years elevates their work-related stress. However, older officers seem less affected by the negative effects of prolonged service, and those with prior police experience are somewhat shielded from this occupational stress. The evolving responsibilities of conservation officers have heightened their stress and demanded more comprehensive research and understanding.

Theoretical Framework

The importance of individual characteristics and environmental factors has long been acknowledged in theories of stress, as they are crucial to understanding the causes and effects of stress. The Person-Environment Fit Theory suggests that workplace stress arises when there is a misalignment between the employee's abilities and objectives and the demands and resources of the work setting, potentially resulting in adverse health consequences (Berry & Houston, 1993). The theory is rooted in organizational psychology and proposes that the degree of alignment between a person and their work environment can impact outcomes such as stress levels, job satisfaction, and staff turnover (Edwards & Shipp, 2007; Kristof-Brown et al., 2005). In other words, the Person-Environment Fit Theory views stress through the lens of law enforcement as a mismatch between the environment and the officer's goals.

Recent research indicates that the Person-Environment Fit model can enhance comprehension of officers' experiences within the law enforcement organization (Ingram et al., 2013; White et al., 2020; White et al., 2021). The theory suggests that stress arises from a misfit between a person and their environment. In other words, if the demands of the job exceed a person's abilities or if a person's values are at odds with the organization's culture, this can lead to stress. The theory is broken down further into levels of fit by job-fit, organizational-fit, group-fit, and vocational fit. The job-fit relates to the similarities between the individual's knowledge, skills, capabilities, and job demands. When there is a good job-fit the individual is more likely to be competent and satisfied. When there is no adverse effect, it can occur. The same occurs with organizational-fit. If the officer finds alignment between their values, beliefs, and personality with the organization, they are more likely to be competent and satisfied. The theory suggests

that a match between the officer and their environment results in mental and physical well-being (Edwards & Rothbard, 1999).

This study applied the Person-Environment Fit theory to investigate the stress factors in the role of game wardens, given that the fit with the organization is a predictive factor. A significant ailment between one's personal characteristics and environment often leads to positive outcomes like job satisfaction, commitment, and reduced staff turnover (Kristofer-Brown et al., 2005).

Conversely, a mismatch or misfit happens when the attributes of an individual are outside their surrounding environment (Kristofer-Brown et al., 2005). In the field of law enforcement, there is a strong relationship with the organizational and cultural environment. Officers who find it challenging to fit their values with the organization's values may face heightened stress levels and decreased job satisfaction and may be more prone to contemplating other career paths (Rief & Clinkinbeard, 2021).

Applying the theory to game wardens could explain the sources of stress and potential interventions. For example, a game warden's job requires them to work long hours in isolation, but if they prefer regular interaction with colleagues (a poor person-job fit), this could be a source of stress. The stress of not having job satisfaction or having their interest align with their vocation can have a long-term impact on both the agency and the warden. Similarly, if a game warden values wildlife conservation but feels that the organization prioritizes traditional law enforcement priorities over conservation law enforcement (a poor person-organization fit), this could also be stressful. Many conservation agencies are shifting their responsibilities to include more traditional police work as part of the game warden job. Suppose this shift occurs in an

organization, and the warden feels they have moved away from the responsibilities of protecting the resources. In that case, the warden may be less satisfied in their role as well as the organization.

Rief and Clinkinbeard (2021) found that the most significant predictor of stress was organizational fit in law enforcement agencies. In other words, organizational culture and environment were most important to officer well-being and attitude.

Related Literature

History of Game Wardens

To gain a deeper understanding of conservation officers, examining the reasons for their necessity is essential. The act of illegally taking wildlife, also known as poaching, can be traced back to the Middle Ages and the early modern period when it was a common social practice (Theis, 2001). William the Conquer created the New Forest when he took over England; some called him the first conservationist. His critics argued that he was a tyrant who created harsh laws to protect the game animals and land they lived on (Theis, 2001). The regulation of hunting wildlife in the Middle Ages in England can be traced back to the King granting permission to lords of manor and freeholders to hunt deer in certain districts; however, it was clearly stated that in order to hunt on the crowns land, one must have permission or through the strictness of the law they would be penalized (Haden & Israel, 2015).

The Forest Charter of 1217 established the first documented conservation officers or game wardens known as the *forest protectors* (Hay, 1975; Palmer & Bryant, 1985). Seeing that

the kings and his lords held the property of all wildlife and plants in the forest, food was scarce, and the poor resorted to poaching the wildlife. This resulted in the ruling class responding by protecting the resource by employing "protectors of the forest" (Falcone, 2004, p.61).

During the colonial period, hunting and fishing were considered unrestricted activities, and there was a thriving trade in commercial wildlife and fish. However, this led to the depletion of natural resources, as there was a widespread belief that they were inexhaustible. It was not until 1698 that Connecticut became the first state to impose a limit on deer hunting season, with Massachusetts and New Hampshire later implementing similar regulations in 1740 (Haden & Israel, 2014). Massachusetts was the first state to appoint the first modern-day game warden in 1739 (Haden & Israel, 2014).

In 1843, Maine took steps to protect its fisheries by appointing three residents of Penobscot, Hancock, and Waldo Counties as county fish wardens. Their role was to oversee the salmon, shad, and alewives in Penobscot Bay's waters Bay (History of Marine Patrol | Department of Marine Resources, 2023).

This marked the first instance of fisheries protection in Maine's history. Later, in 1880, Maine appointed its first game wardens to safeguard moose and deer. The Boston Herald praised Maine's game laws as the most stringent and effectively enforced among all states in the United States (History: Warden Service: Maine Dept of Inland Fisheries and Wildlife, 2023).

Maine Warden Service

The Maine Game Wardens protect natural resources and outdoor heritage through education, involvement, and enforcement (Warden Service: Maine Dept of Inland Fisheries and Wildlife, 2023). They are the largest bureau within the Department of Inland and Fisheries, with

approximately 125 game wardens who comprise the agency (How to Become a Fish and Game Warden, Conservation Officer, 2021). Their history dates to March 9, 1880, when the Department of Fish and Game was established and appointed wardens were given the authority to enforce laws to protect Maine's deer, caribou, and moose population (History: Warden Service: Maine Dept of Inland Fisheries and Wildlife, 2023). The laws set in place to protect the resource, specifically big game, were said to be the strictest in the country, according to the Boston Herald (History: Warden Service: Maine Dept of Inland Fisheries and Wildlife, 2023).

After World War II, the department's funding was cut in half, and the moose hunting season was closed. In 1928 a Warden's salary was 25$ a month, civil service exams were given in 1931, and wardens were selected based on their scores versus being appointed. In the 1950s, the warden service increased the full-time pay. It hired temporary wardens to work the busy deer hunting season (History: Warden Service: Maine Dept of Inland Fisheries and Wildlife, 2023). As poachers became more creative with their methods of killing deer illegally, the warden service was equipped with snowmobiles and motorboats, as well as lights and sirens for their vehicles in the 1960s (History: Warden Service: Maine Dept of Inland Fisheries and Wildlife, 2023). The first female game warden was hired in 1978, which has increased to 8 full-time Game Wardens.

In 2012, the Maine Warden Service had a television series on Animal Planet, North Woods Law, documenting their routine patrols, community involvement, and search rescue cases. The show highlighted the roles and responsibilities of Maine Game Wardens and was nationally shown throughout the country. For four years, the show highlighted different law enforcement encounters until it moved its filming to New Hampshire in 2021, where it followed New Hampshire Conservation Law Enforcement Officers.

The Maine Warden Service leadership structure is led by the Colonel, with a Major, Lieutenants, and Sergeants. There are also captains for the specialty teams as well as warden service pilots. They have nine specialty teams that make up the warden service that all serve unique purposes. They include aviation, dive team, K9 team, special investigations, evidence response, firearms, forensic mapping, honor guard, and incident management teams (Specialty Teams: Warden Service: Maine Dept of Inland Fisheries and Wildlife, 2023). The wardens are responsible for patrolling over 22.6 million acres of land in Maine, divided into five divisions.

The strong heritage of the Maine Warden Service runs deep through the agency. There is a strong commitment to protect the wildlife and resources of Maine, not just through law enforcement efforts but through education and community involvement (*Warden Service: Maine Dept of Inland Fisheries and Wildlife*, 2024). Due to Maine's large and rural state, many Maine Game Wardens perform traditional law enforcement duties to help support traditional law enforcement agencies. Eliason (2016) suggests from his research that the job of a wildlife law enforcement officer is changing, with the responsibilities of the officers becoming broader to include a greater variety of traditional law enforcement responsibilities.

Roles/Responsibilities of Game Warden

Aldo Leopold, who is recognized as the founding figure of wildlife ecology, argued that conservation represents a harmonious relationship between humans and the earth (Leopold & Schwartz, 1950). He further elaborated that cooperation is essential to achieve a harmonious existence. Conservation of wildlife and the habitat is like a three-legged stool; without one of the legs, it will fail. The first factor is science. The science determines what the needs of the species are. The second factor is management. The management helps drive the decisions on managing

wildlife through state laws and regulations. The final factor is enforcement. Without enforcement of the statutes to protect the wildlife or habitat, it would result in the depletion of the resources.

Conservation law enforcement is a type of law enforcement that focuses on the enforcement of wildlife and natural resources state and federal laws. All game wardens are sworn law enforcement, but not all law enforcement officers have game warden authority. Within the field of conservation law enforcement, there are many different branches of government to protect the resources specifically. Typically, conservation law enforcement falls within the jurisdiction of state and federal agencies, specifically under conservation agencies, except for Oregon and Alaska, where they are part of the state troopers.

Conservation law enforcement officers are known by various names depending on which agency they work for. Their titles include state game wardens, environmental police officers, conservation officers, wildlife officers, marine patrol officers, forest rangers, park rangers, and others. Game Wardens have recently received attention due to their recent cable television shows depicting their work in the field, such as North Woods Law, which shows Maine and New Hampshire Game Wardens making wildlife cases. Lone Star Law is another reality television show focusing on Texas Game Wardens upholding conversation laws, protecting wildlife, and the challenges they face in the field.

Game wardens have an increased leeway regarding the Fourth Amendment compared to traditional law enforcement officers. The courts have interpreted the Fourth Amendment differently for game wardens when doing a compliance check in the field to check for licenses, appropriate hunting mechanisms, and the species and number of animals that have been taken (bag limits). A traditional law enforcement officer must meet the reasonable suspicion level of

proof to stop someone and ask for legal identification, known as a Terry Stop or Investigative Detention.

The game warden's role has transitioned over the last twenty years, adding in more of a traditional law enforcement-type role. Their primary mission is to protect natural resources; however, they are often called upon to assist outside agencies with apprehending criminals, serving search and arrest warrants, and providing first-aid support in motor vehicle accidents (Falcone, 2004). Many traditional game wardens who fondly focus on wildlife crimes have moved away from urban areas and gravitated towards more rural posts to continue the traditional practice of enforcing game violations and avoid traditional law enforcement responsibilities, according to Sherblom et al. (2002). In Maine, game wardens have the most law enforcement authority in the state, including more than state police.

Concept of Stress

Despite the pervasive nature of stress, it is intriguing to note that the systematic scientific exploration of this concept only began in earnest during the early 20th century. Furthermore, attention from popular media towards this significant issue has only been noticeable over the past three decades. The word stress is derived from the Old French term *destresse*, meaning distress, and *estrece*, signifying narrowness or oppression (Cooper & Dewe, 2008).

These terms can be traced back to the Latin *stringere*, which means to draw tight (Cooper & Dewe, 2008; Lehrer et al., 2007). The concept of stress has changed throughout the centuries. When the attributes of stress were first formally recognized, it was to denote adversity and hardship in the 14th century (Cooper & Dewe, 2008; Lehrer et al., 2007). In the 16th century, 'stress' began to represent overexertion and fatigue, and by the late 17th century and continuing

into the 19th century, stress evolved in the physical sciences to indicate the strain, distortion, or deformation of a physical object subjected to external force or pressure (Cooper & Dewe, 2008; Lehrer et al., 2007). One of the early contributors to the understanding of stress was Sir William Osler, who studied pathology and was considered one of the most influential doctors of his time (Robinson, 2018). The Hippocratic principle that dictates doctors should address diseases, not merely symptoms, finds its roots in Osler's medical philosophy. In gathering data about exhibited symptoms, Osler made a pivotal discovery that gave direction to the idea of stress: the physiological response elicited by environmental conditions could potentially exert enduring effects on an individual's health status (Robinson, 2018). Although Osler did not identify a direct relationship between stress and health, he was the first to identify a correlation between health and cognition.

Walter Cannon was one of the first known researchers to start to understand the effects of stress on the digestive system when he studied the movement of a button through a dog's digestive system in 1892 (Robinson, 2018). Through his experiments, he observed that when a cat was distressed, there was an increase in blood circulation, and the digestive process would cease (Cooper & Dewe, 2008; Lehrer et al., 2007; Robinson, 2018). When Cannon was commissioned to France during World War I with a Harvard medical unit, he was exposed to the mass horrors of combat.

He observed peculiar behaviors from soldiers returning from the front lines (Robinson, 2018). Unfortunately, the doctors treated physical traumas during those times, and the soldiers were returned to combat. The term shell shock was defined by symptoms of dizziness, headaches, fatigue, anemias, titus, sweating, and tremors when no neurological injury was observed (Robinson, 2018).

Captain Charles Myers published the first research on shell shock in 1915. Myers hypothesized that the delayed onset of anesthesia could be attributed to emotional distress, such as terror or horror, which first instigates bodily pain (or hyperesthesia) before leading to a period of sensation loss. It was approximated that about 10% of soldiers in World War I were affected by shell shock (Mitchell & Smith, 2010).

Stress is recognized in modern times as part of everyday life, having physical and emotional impacts. Advances in stress research include a better understanding of the effects of stress, genetics, and disease inheritance. Studies have recently shown a correlation between prenatal stress and adverse birth outcomes (Robinson, 2018). The advancements made throughout the 20th century have significantly deepened our understanding of stress and underscored the importance of better understanding the effects of stress.

Fight or Flight

Walter Cannon's interest and research into the possible connections between emotional reactions to potential threats lead to the connection between emotional states and physiological functions. He was interested in developing a theory to answer the reasons for changes in bodily functions when an organism was confronted with a stressor.

Cannon specifically noticed that when confronted with a possible threat, stimulation of the sympathetic nervous system takes place, leading to a series of physiological alterations such as accelerated heart rate, respiration, and perspiration. These changes prepare the body for a potential fight-or-flight response (Cooper & Dewe, 2008; Lehrer et al., 2007; Robinson, 2018). In other words, if a signal to the brain from an external stimulus reaches an emotional competence threshold, it activates nuclei to produce the required response, leading to the

emotional state of fear (Robinson, 2018). This response would result in an increased heart rate, perspiration, and respiration, preparing for the body to fight or run (flight); the term, fight or flight is often seen in the field of law enforcement; however, officers are expected to control, even in situations with intense emotional responses. This conflict between biological responses and societal demands can take a toll on the officer over time (Lindsey & Kelly, 2004).

According to McEwen (1998), during the fight-or-flight response, two primary physiological mechanisms are activated to prepare the body to meet the demands of the situation and inhibit nonessential functions such as reproduction and growth. The sympatho-adrenal response triggers a comprehensive and potent reaction, encompassing the release of neurotransmitters and hormones. The second physiological mechanism involves the operation of the autonomic nervous system (ANS), which is bifurcated into two divisions - the sympathetic (SNS) and parasympathetic (PNS) systems (Lovallo, 2005; McEwen, 1998). Studies indicate that a sympathetic nervous system (SNS) response that appropriately aligns with situational demands - neither overly high nor excessively low - can contribute to optimal performance during threatening situations. This SNS arousal can facilitate enhanced sensory awareness, expedited decision-making, and improved cognitive functioning. In the field of law enforcement, such balanced SNS activation can prove invaluable for police officers, helping them to rapidly and effectively respond to potentially dangerous circumstances, make accurate decisions under pressure, and maintain cognitive clarity amidst challenging scenarios (Hansen et al., 2009; Lambourne & Tomporowski, 2010).

Chronic Stress

Hans Selye, a trained medical doctor whose main interest was research, is credited for coining stress. However, it was already used in physics and engineering (Robinson, 2018). He

defined *stress* as "the nonspecific response of the body to any demand made upon it" (p. 14, Selye, 1974). Selye (1974) furthered his explanation of stress by introducing the general adaptation syndrome (GAS), the physiological response to stress that occurs in three stages. The three stages included the alarm stage, the adaptive-resistance stage, and the exhaustion stage, all of which are the biological foundations of the concepts that heavily shaped the current understanding of how life's demands impact the physiological state of living organisms. The alarm stage, which aligns with Cannon's fight-or-flight response, occurs when the body's physiological responses are triggered in reaction to an initial encounter with a potential threat or source of stress (Cooper & Dewe, 2004; Robions, 2018; Selye, 1974; Woolfolk et al., 2007). Persistent exposure to a source of stress propels the body into the stage of adaptive resistance, during which the body strives to adjust to the stressor. This adjustment demands the utilization of a limited set of physiological resources, which could ultimately run out and push the body into the exhaustion stage. This is the last stage of the GAS model, where prolonged exposure to a stressor weakens the body's immune system and disrupts its usual functions (Cooper & Dewe, 2004; Robions, 2018; Selye, 1974; Woolfolk et al., 2007). This exhaustion of the body's reserves makes it susceptible to a wide range of diseases and could ultimately result in death (Cooper & Dewe, 2004; Robins, 2018; Selye, 1974; Woolfolk et al., 2007).

Stress can be classified as good stress, tolerable stress, or toxic stress. Good stress is categorized by the experience or challenge that results in a positive reward. Good stress can often result in personal growth and promote resilience, according to McEwen (2017). Situations where negative things happen, and the person is able to cope with them are referred to as tolerable stress. The outcomes from these experiences often result in personal growth; however, the support of family and friends is often needed to persevere (McEwen, 2017). Finally, toxic stress

is the combination of bad things occurring in people who have limited or no support system, resulting in adverse effects on behavior and physiology (McEwen, 2017). *Chronic stress* is low-level stress that operates in a way that changes one behavior.

It can result in changes in eating habits, lack of sleep, and excessive drinking or smoking. It can also lead to the shrinkage of dendrites, which play a crucial role in cognitive abilities. This shrinkage can contribute to heightened anxiety and trigger behaviors associated with post-traumatic stress disorder (PTSD). Chronic stress can also lead to obesity and metabolic syndrome, which is regulated in different regions of the brain (McEwen, 2017). The effects of stress are not reversible; however, redirection can benefit an individual, according to researcher McEwen (2017). In other words, the damage of chronic stress cannot be changed; however, changing in a positive direction can make a difference.

Occupational Stress

Operational stress, also known as occupational stress, in law enforcement is often referred to as stress that is associated with police-related duties such as shift work, high-risk incidents, traumatic events, work-life balance, and inherent stressors (Queirós et al., 2020). Inherent stressors refer to potentially harmful events within the scope of police work (Dowler, 2005). These may include interactions with citizens, seizures, pursuits, use of force situations, and other police-related duties (Hickman et al., 2011; Chae & Boyle, 2013). Even though these inherent stressors may occur less frequently than organizational stress, the continuous anticipation of potentially dangerous encounters often results in higher stress levels.

Work-related stress is linked to numerous adverse outcomes within an organization. A consistently observed finding is that increased job stress leads to decreased job satisfaction. This

is significant for organizations, as job satisfaction is known to influence commitment levels and the likelihood of an employee leaving the job (McCreary & Thompson, 2006).

Herzberg (1968) argued that job satisfaction is connected to the inherent attributes of a person's occupation. This implies that an employee's experiences greatly shape their degree of contentment at work. Herzberg reinforced his perspective by declaring that demographic attributes have no bearing on job satisfaction. McCarty et al. (2007) suggest that intrinsic job factors, such as the policing work environment, tense relationships, and excessively rigid rules, substantially influence occupational stress and burn-out among law enforcement officers more than demographic variables. Occupational stress occupies a middle ground between theory and practice, given its potential physical, emotional, and performance-related impacts on an individual (Haar & Moorash, 1999).

The issue of occupational stress in law enforcement has become a prominent concern in recent years. Studies indicate that police officers often face significant stress levels, leading to adverse physical and emotional outcomes. Stressors for conservation law enforcement officers differ from those of their more traditional counterparts. As per Walsh and Donovan's (1984) research, a large portion of conservation law enforcement officers regard their occupation as potentially hazardous due to the nature of their responsibilities.

They frequently deal with hunters possessing several firearms and knives in remote areas with minimal backup support, increasing their work-related stress. However, research into the dangers of conservation law enforcement is scarce, with only three studies focusing on wildlife policing dangers (Carter, 2004). The heightened sense of impending risk often leads to hypervigilance, which can cause physical and emotional damage over time, potentially leading to

depression, post-traumatic stress disorder, sleep disruptions, and burn-out (Territo & Sewell, 2019).

Shift work has also been attributed to law enforcement's occupational stress, particularly afternoon-evening shifts. Research in different industries has suggested increased stress among workers who worked the non-day shift. Claudia et al. (2015) found an increase in stressful events among the afternoon and night shift officers of administrative/organizational stress and physical/psychological danger compared with those who worked the day shift. In their study, Violanti et al. (2018) discovered no notable variances in fatigue levels between shifts in police officers. Nevertheless, they observed an 89% surge in reports of "feeling tired" among male employees during the afternoon shift.

Feeling like an officer is always on a job is also considered an occupational stressor. The feeling of being unable to mentally turn off the demands of work or the constant callouts or calls for game wardens can intensify this feeling.

Whether it is the perceived feeling of being on duty when off duty or the constant calls/callouts, prolonged exposure to work stress has been linked to negative health consequences, including physical, psychological, and psychosocial (Shane, 2010). The term burn-out has been used to define the feeling of exhaustion, both emotional and physical, often resulting from prolonged periods of stress and overwork. It manifests as a state of depletion, impacting not only one's energy levels but also one's emotional well-being and overall sense of fulfillment. Violanti et al. (2018) indicated that resilient law enforcement personnel can withstand stress and remain effective despite internal and external imbalances associated with

work. However, consequences of overcommitted officers may result in the inability to have a work and personal life balance (Violanti et al., 2018).

Rural Policing and Occupational Stress

Most of the stress in policing has been focused on urban areas, with little understanding of the stress on rural police officers (Ricciardelli, 2018). Interestingly, while 97% of the United States consists of rural regions, only one-fifth of the population resides in these areas. (Nasser, 2021). Rural policing is distinctive due to cultural differences, isolation of the officer, and risks that rural officers often encounter.

Officers who patrol rural areas often experience longer time for backup and must travel increased distances responding to emergency calls. However, according to the Federal Bureau of Investigation's (CIUS Summary, 2018), there are more officers per 1,000 citizens in rural areas compared to urban areas. Rural and urban police departments show significant demographic variations, especially concerning female officers. In metropolitan departments, 14.1% are women, compared to 8.1% in non-metropolitan departments. There is also a noticeable educational gap; 36% of urban police officers possess a bachelor's degree, compared to 12% in rural settings (Ioimo et al., 2011).

An earlier study in 1998 suggested that large urban police departments were at higher risk for organizational stress, whereas smaller urban departments have a higher level of emotional stress (Brooks & Piquero, 1998). The top operational stressors related to rural policing reported were fatigue, lack of time for physical fitness, and lack of time with friends and family. These realities have short-term and long-term effects on the officers and the department, with implications for their physical and mental health. Rural officers experience stress from being

understaffed, isolated, and lack of backup. Contrasting with the findings of Brook and Piquero in 1998, a study by Husain in 2019 determined that urban police officers reported higher instances of depression, anxiety, and stress than their rural counterparts.

Organizational Stress

Studies indicate that organizational stressors may uniquely contribute to operational stress injuries and depression. Chan and Anderson's (2020) research found no significant disparity in officers' perceptions of organizational and operational stress. Elements like management autonomy, flexibility, and organizational involvement may cause more stress for police officers than their routine duties (Violanti, 2017). The effect of stress on job satisfaction has been corroborated in numerous studies (Julseth et al., 2011). The long-term stress associated with a job can severely impact physical and mental health, with stress increasingly being viewed as a psychosocial risk (Publications Office of the European Union, 2019). Stress in the law enforcement field can be categorized into operational and organizational stress. Many studies have drawn a connection between high levels of exhaustion, depersonalization, burn-out, and mental health issues (Publications Office of the European Union, 2019). Burn-out among law enforcement officers can be linked to both internal and external aggression. Sherwood et al. (2019) suggested an elevated risk of suicide in law enforcement due to the combination of internal aggression and easy access to firearms.

Tragically, police officers are more likely to die by suicide in the line of duty than by gunfire (Ruderman Foundation, 2018). A key component to managing stress is understanding its source. Organizational stress also correlates with high work demands, low resources, and low rewards. According to Sherwood et al. (2019), job strain, lack of social support, imbalance of effort rewards, and reduced control have all been found to predict the onset of mental health

problems in the workforce. It is also found that these psychosocial problems at work were found to be associated with increased depression (Sherwood et al., 2019). Social support of colleagues is found to be the most influential risk factor in organizational conflict. Social support is strongly associated with the psychological well-being of police officers across the country.

In the current political landscape, maintaining staff in law enforcement has become as crucial as recruiting new members for organizations (Julseth et al., 2011). Data from the Bureau of Statistics (2012) revealed that in 2008, around 61,000 full-time sworn law enforcement officers were employed, but 51,000 officers left their positions due to resignation, retirement, or separation, resulting in a net increase of just 10,000 officers for the year (Reaves, 2012). The primary concern for many officers is the perceived lack of support. Therefore, it is crucial to pinpoint both the reasons why officers choose to remain in their roles and the factors that lead to their departure.

Law enforcement organizations nationwide allocate a large portion of their budget toward recruiting and training new officers. However, high turnover rates within these agencies result in substantial financial costs, wasted time, and heightened stress. The direct financial implications of turnover encompass the vacant position, the loss of the employee's skills and training, and the expenses associated with recruitment, pre-employment procedures, and training. Wareham et al. (2013) reported that the costs of recruitment and hiring are notably higher for law enforcement agencies than for other types of organizations. There are also indirect costs when an employee departs, such as losing the employee's expertise, weakened social networks and connections, increased reliance on inexperienced or overworked staff, inadequate staffing, and diminished morale (Wareham et al., 2013). Additionally, a cascading effect may occur when a high number of employees exit, prompting further turnover among the remaining staff.

Several elements contributing to high attrition rates in police departments involve officers' views on administrative and personnel policies and practices. Factors such as job satisfaction, job engagement, and organizational loyalty have been found to negatively influence turnover rates (Wareham et al., 2013). Studies highlight job satisfaction and organizational commitment as significant precursors to employee turnover (Wilson et al., 2010). Moreover, opportunities for promotion are also closely tied to job satisfaction.

Jaramillo, Nixon, and Sams (2005) identified that promotion and upward mobility support are the most significant stressors. They further contend that factors such as perceived advancement opportunities, team unity, and supervisory support significantly influence the relationship between stressors and strain. It has been demonstrated that individuals with specific career ambitions are more likely to attain job-related success in the long run than those who initially did not have high expectations for themselves (Gau et al., 2013). Compensation in law enforcement agencies tends to affect promotion opportunities and the decision to take on increased responsibility. Inadequate compensation influences the potential for turnover, especially if there is a need for promotional opportunities.

Nonetheless, a study carried out in 2006, which surveyed 20,000 workers across 18 different industries, discovered that between 80 and 90 percent chose to depart from organizations for reasons other than financial ones (Wilson et al., 2010). Often, officers might determine fairness in promotions and career growth, indirectly influencing retention. Agencies that are smaller in size sometimes have no room for specialized teams or promotion potential. In contrast, larger agencies have more possibilities for specialized teams, reducing boredom and feeling trapped (Orrick, 2008).

Career ladders can provide vertical growth in an officer's career and organizational structure, allowing for upward movement. Whether formally established or conceptually understood, career progression paths can positively impact how employees perceive their commitment to the organization, professional approach, and concrete opportunities for personal and professional advancement (Orrick, 2008). Employees also gauge salary potential on career ladders when accepting a position with a department. When opportunities to promote become stale, organizational conflict occurs.

There has been substantial research on promotion and women in the workforce. Great strides have allowed women to break through the glass ceiling to be promoted to CEOs of large companies, Chief of Police, and even Vice President of the United States. However, law enforcement women represent a significantly smaller portion than outside organizations. Studies have explored why women do not advance at the same pace as their male peers, discovering that internal and external obstacles hinder the promotion of female officers (Morabito & Shelley, 2018). Interestingly, one study examining women's promotions in law enforcement showed that most women did not enter the promotion process at all. The biggest reason was the fear of shift changes that could disrupt family routines or childcare commitments (Morabito & Shelley, 2018). Promotional opportunities are tricky for women in law enforcement as they also view the opportunity as a staged opportunity, in other words, trying to fill a quota or a political agenda.

Gau, Terrill, and Paoline (2013) argue that bureaucracy, politics, and conflicts with coworkers cause stress, and stress dampens job satisfaction. Job satisfaction influences the retention rate, which could eventually cost an agency financially. When individuals distrust management, it can be a result of being burned out or emotional detachment. Studies in

organizational behavior suggest that when employees view their leaders as just, they are more inclined to trust the organization (Wolfe & Nix, 2016).

Perceived injustice has the strongest association with employee outcomes to the extent of interpersonal interactions. Theoretical models propose that trust is established or eroded through interactions between individuals as they comprehend their objectives and interests (Krosgaard et al., 2002). Individuals who work together spend a significant portion of their lives with coworkers, and in law enforcement, this sometimes means being in close contact for an extended amount of time. Trust builds as an officer from day one in the academy with the entire police force and the brotherhood of law enforcement, so breaking an officer's trust can have detrimental effects on the individual and the entire agency. Five categories of managerial behavior that have an impact on employee's trust in their supervisor are (a) behavioral consistency, (b) acting with integrity, (c) sharing and delegation of control, (d) openness of communication, and (e) demonstration of concern (Krosgaard et al., 2002).

An employee's behavior is often the consequence of how much the employee perceives the manager to trust them. One study found that regardless of the fairness of Human Resource (HR) policy, employees responded favorably to managers who exhibited trustworthy behavior (Krosgaard et al., 2002). In law enforcement, this can be particularly true. Law enforcement has many policies and procedures to follow, as well as understand state criminal law as well as an attorney does. If law enforcement perceives that HR policy is unfair, they will still respect the trustworthy supervisor who will have their back. This can also work in reverse. Employees who do not trust the supervisor may find HR policy fair or not particularly challenging. Loss of trust and confidence in supervisors can also affect retention, and communication is often to blame (Wilson et al., 2010).

Younger generations value trust in an organization more than the older generations. This could be because of their opportunities or their lack of commitment to an agency, which could result from poor trust in the organization or leadership. Employee turnover is often the result of employees quitting because their need for trust, hope, and worth is unmet in organizations (Wilson et al., 2010).

Rural Policing and Organizational Stress

Rural police officers encounter some of the same similarities of organizational stress that urban departments. As mentioned previously, a large majority of research has been conducted on urban police departments. Policing in rural areas brings its own challenges that are rooted in its geographical landscape. Workload has been suggested to be attributed to organizational stress within law enforcement. Duxbury and Higgins (2012) conducted a comprehensive study to understand better police workload and the impact on both work and personal life. Researchers support that the leading cause of stress in law enforcement work life is not occupational stress but organizational stress (Shane, 2010).

The role of police officers often results in officers experiencing stressful occupational events working in adverse situations, including environmental conditions, increased risk of physical interactions, and exposure to violent scenes. Organizational stress arises from factors within the agency, including promotion processes, bureaucracy, workload, and the perception of being valued or appreciated. Evidence supports research that the police department itself is the primary of stress in law enforcement agencies, not the job.

One organizational factor that affects rural police officers is known as the "fishbowl effect" (Wu & Wen, 2019, p. 437). The "fishbowl effect" occurs in departments when rural

officers serve in the town in which they live. Essentially, the community knows who the officers are, when they work, and where they live. Compared to their counterpart who lives in urban areas with their personal lives anonymity. Wu and Wen (2019) argue that poorer work conditions contribute to increased organizational stress in rural police departments. They suggest that lower salaries, less advancement in technology, and inadequate staffing have a negative effect on police officers. Lack of equipment and staffing has been argued to be the leading cause of organizational stress in rural departments (Wu & Wen, 2019).

Game Warden Stress

Game Wardens often patrol alone in rural areas with little to no backup available. Cebulak (2004) contended that although specific police procedures and criminal offenses may overlap, rural crime differs significantly from urban crime. Policing in rural areas adds to its unique stressors. This divergence carries enough significance in certain aspects to impact policing strategies. It should be emphasized that rural policing is heavily influenced by the rural culture, way of life, and crimes specific to the rural environment (Weisheit et al., 1994). Research on law enforcement in rural areas, mainly focusing on game wardens, has been notably scarce, as highlighted by Aaron (2000), Bartol (1982), Oliver and Meier (2004), Scott (2004), and Walsh and Donovan (1984). This need for more attention to their distinct responsibilities and work environments is concerning, as Forsyth and Forsyth (2009) emphasized.

Walsh and Donovan (1984) conducted initial research on the perceived stress experienced by conservation officers. Their findings revealed that a significant number of game conservation enforcement officers viewed their job as posing potential physical threats and dangers.

In 2006, Oliver and Meier (2006) studied stress in conservation officers and found that working conditions contributed to increased stress levels within specific demographics. They observed higher levels of stress among conservation officers who were female, unmarried, and lacked college degrees and military experience. In their research, Ledford et al. (2021) found that officers who often performed traditional police work had increased levels of perceived stress. Similarly, those with more extensive education and extended service in the field also reported heightened stress levels. The findings suggested that, on average, conservation officers experienced a moderate degree of career-related stress. Interestingly, age mitigated the influence of years served, as the adverse effects of prolonged service appeared less impactful on older officers.

Furthermore, an increase in the amount of traditional law enforcement work was found to correspond to heightened stress levels. The most recent study on stress on conservation law enforcement found that the shifting job responsibilities of conservation officers have seemingly led to a notable increase in stress levels among individual officers. A recent study showed that officers who have served for longer durations, possess higher education qualifications, and are obligated to perform traditional policing tasks tend to encounter elevated work-related stress associated with these responsibilities. On the other hand, officers with previous policing experience were insulated from this stress (Ledford et al., 2021).

Effects of Stress

The effect of occupational and organizational stress can be both physical and psychological. Encountering trauma can adversely affect an individual's emotional and mental well-being, frequently leading to hostility, anger, and hyperarousal. According to Gilmartin (2002), hyperarousal's impact can significantly affect one's emotional and psychological health,

leading to increased heart rate and experiencing the feeling of restlessness in the absence of actual threats. Consequently, this can limit their ability to remain calm in certain situations, resulting in acts of impulsivity without engaging in thoughtful decision-making (Territo & Sewell, 2007). However, hypervigilance is necessary for law enforcement officers in high-risk situations where it is necessary to engage all of one's senses to overcome a genuine threat. According to the American Psychiatric Association (2013), hypervigilance is often a symptom of Post-traumatic Stress Disorder (PTSD). Individuals who have PTSD may exhibit increased impulsiveness and reduced inhibitions due to difficulties in processing information during critical moments (American Psychiatric Association, 2013). This is particularly significant for those who have undiagnosed and untreated post-traumatic stress disorder (PTSD), as their response to anticipated danger can pose risks to both them and others.

Multiple research studies provide consistent evidence regarding the harmful impact of stress on law enforcement professionals on the physical, psychological, and behavioral well-being of police officers (Cerel et al., 2019; Chopko et al., 2017; Rabbing et al., 2022). Physiologically, stress has been linked to an increased risk of coronary heart disease, cardiovascular disease, gastrointestinal disorders, diabetes, headaches, circulatory disorders, and certain cancers (Abdollahi, 2002; Franke et al., 1998; Gershon et al., 2009; Morash et al., 2006). Additionally, stress has been associated with higher mortality rates (Abdollahi, 2002). The mental impact of police-related stress can manifest as anxiety disorders, depression, post-traumatic stress disorder (PTSD), job dissatisfaction, exhaustion from overwork, indifference, tension, agitation, anger, suspicion, social withdrawal, ennui, feelings of estrangement, emotional depletion, and emotional detachment (Abdollahi, 2002; Franke et al., 1998; Malach-Pines & Keinan, 2006; 2009; Morash et al., 2006; Violanti & Aron, 1995). The persistent stress

experienced by police officers can give rise to various behavioral challenges, including substance abuse, heightened vigilance, excessive aggression, frequent absences from work, early retirement, elevated rates of divorce rate, domestic violence offenses, infidelity, and an increasing amount of suicide (Abdollahi, 2002; Morash et al., 2006; Violanti & Steege, 2020).

According to Violanti and Steege (2020), law enforcement officers have an increased rate of 54% risk of suicide compared to civilians. Identified risk elements contributing to suicide within the law enforcement sector include experiencing traumatic incidents and occupational stress (Law Enforcement Officer Suicides: Risk Factors and Limitations on Data Analysis, 2023; Violanti & Steege, 2020). According to the Federal Bureau of Investigations Law Enforcement Suicide Data Collection 2022, the average age of law enforcement who committed suicide was 43, and most of the victims were white, non-military males (Federal Bureau of Investigations, 2022). Cited as potential factors contributing to the deaths were 26% relationship problems, 23% documented depression, and 19% reported burn-out, PTSD, and secondary trauma (Federal Bureau of Investigations, 2022).

Multiple studies have explored officer-involved shootings (OIS) to understand the potential impact of stress on performance in real-world situations. The results align with broader research on stress and performance. For instance, while accuracy rates in yearly firearms requalification exercises on the range are close to 90% (Anderson & Plecas, 2000), these figures significantly decrease in actual field scenarios, with hit rates falling between 14 to 38% (Morrison & Vila, 1998; Morrison & Garner, 2011; Donner & Popovich, 2018). Officers may also experience altered perception in high-stress situations, reduced fine motor control, and hindered cognitive function (Klinger & Brunson, 2009).

For example, in a study by Artwohl (2008), 157 police officers were surveyed shortly after their involvement in an OIS, aiming to analyze any perceptual or memory distortions during the high-stress incident. The results indicated that most officers experienced perceptual narrowing (84% reported diminished sound, and 79% reported tunnel vision). Many of the participants (74%) also observed that their responses were largely instinctive, functioning almost on "autopilot," and a sizable group (52%) mentioned experiencing memory distortions or loss. Approximately 7% of the participants experienced temporary paralysis, which the author suggested might correlate with an initial freeze response when shocked, a phenomenon that tends to linger during high stress shooting scenarios (62% reported a sensation of time slowing down). Other research has reported comparable reactions. Such effects can be particularly damaging during a critical incident when officers are expected to exercise sound judgment, perform proficiently, and provide accurate accounts of their actions. (Baldwin, 2019).

Relationship between Demographics and Stress

Among the recent scholarly efforts to better understand law enforcement stress is research on the individual level. According to Scott (2004), stress has been associated with sociodemographic factors, including age, gender, race/ethnicity/marital status, educational attainment, years of service, rank, and personal income. Research has shown that the older an officer was with more seniority, the more pronounced the stress they experienced (Toch, 2002). Most of the research shows that age has been significantly associated with stress in policing (Marmar et al., 2006).

Based on the Gender Role Theory, women are more often associated with family roles, while men are predominantly linked to work roles. However, the Gender Role Theory may be less applicable to women in policing due to their tendency to engage in behaviors like their

counterparts (Duxbury et al., 2020). Bardoel et al. (2011) suggest that women police officers are more likely to be strategic in their behavior when choosing a mate by having fewer children, delaying childbirth, or forgoing having children at all. Research shows that work-life balance is a significant challenge for both men and women police officers regardless of gender (Duxbury et al., 2020). Female officers tend to measure higher stress in research on physical/psychological threat stressors than their male counterparts, as well as coping styles among the two genders (Bonner & Brimhall, 2021). Alcohol usage was associated with more significant routine work stress with male officers but not female officers (Marmar et al., 2006). Female game wardens were shown to have a higher stress level than males, according to Oliver (2006). However, the findings were from a small sample population.

Within the law enforcement world, it is speculated that the police divorce rate is higher than other occupations. However, according to the 2000 census, the divorce rate among police officers, 14.4%, was lower than the national average of 16.96%. Fish and Wildlife Officers was 25.53% (McCoy & Aamodt, 2009). According to Dixit (2019), the influence of stress can have an impact on marriage. A stable marriage is believed to lessen operational stress, while marital conflict can intensify it. The effects of stress may be affected by the emotional intelligence of the officer, however. Factors such as rank, self-motivation, and altruistic behavior may provide an equilibrium against operational stress. The implications of enhanced emotional intelligence imply that emotional intelligence training, recurrent and intense, is a way to increase emotional intelligence (Rajan et al., 2021). Oliver (2006) found in his research that single-game wardens had a higher stress level than game wardens who were divorced.

Research indicates that there is a noteworthy correlation between higher educational attainment and a reduced likelihood of PTSD among police officers (Irizar et al., 2021).

Additionally, increased educational levels in this profession are associated with a decrease in excessive alcohol consumption, including binge drinking (Irizar et al., 2021). This underscores the potential benefits of promoting higher education within the police force, enhancing decision-making and cognitive skills, and fostering mental health and well-being. Encouraging continued education and professional development can be instrumental in creating a more resilient and effective police force better equipped to handle the stresses and challenges of the job. Research on game wardens suggests that the higher the level of higher education, the better they handle stress (Oliver, 2006).

Age-related factors in professions have often been influenced by stress. However, Balakrishnamurthy and Shankar (2009) found in their study on stress and age in the law enforcement profession that officers between the ages of 27 and 36 demonstrated a slightly higher amount of stress than older officers. However, they noted that officers with 11-20 years of experience had experienced higher levels of stress than officers with 21-30 years of experience. The number of years of service in policing has been associated with a decreased level of stress (Violanti, 1995). Ledford et al. (2021) suggested that "while years of experience might serve to increase levels of stress, age may serve to partially insulate individuals from impact" (p. 9). In other words, age was found to have a negative relationship with stress, and years of experience increased stress. Past research has shown that age and years of service significantly contribute to stress in law enforcement roles (Patterson, 1992; Violanti, 1983).

This recent research explores the correlation between stress and individual attributes within law enforcement. Older officers with more seniority often experience increased stress. In contrast, the dynamics between gender and stress reveal that women officers, despite mirroring male colleagues in behavior, report heightened stress from physical and psychological threats.

Marital stability can mitigate operational stress, and an officer's emotional intelligence, including factors like rank and self-motivation, plays a critical role in stress moderation. Notably, higher education in the police force is linked with reduced PTSD risk and decreased alcohol consumption, emphasizing its value in fostering resilience. Interestingly, while age tends to lessen stress, extended service years intensify it, suggesting a complex interplay between experience and age-related coping.

Summary

While considerable research exists on stress in police officers, studies focusing on stress among game wardens remain limited. The Maine State Game Wardens history dates back nearly 150 years, with a continued strong emphasis on protecting the wildlife of Maine. The wardens are responsible for patrolling rural parts of Maine, most times by themselves, with limited backup. Research shows that police officers who patrol rural areas are impacted by organizational stress due to the lack of backup, staff, and resources. The impact of stress has been extensively study has been shown to have profound effects on an individual's physical and mental health. Examining police officer demographics reveals that factors such as age, gender, marital status, years of service, and education are influenced by stress. Organizational and occupational stress on police officers can contribute to high turnover within a department and affect an officer's overall well-being.

CHAPTER THREE: METHODS

Overview

This study aims at understanding occupational and organizational stress faced by Maine Game Wardens. After the study received endorsement from the Dissertation Chair, this researcher secured approval from Liberty University's Institutional Review Board (IRB) and subsequently from the Colonel of the Maine Warden Service to conduct this study. The survey was developed with input from the Chair, and the Reader, and was distributed to sixty current full-time Maine Game Wardens at three different division meetings and two state trainings. Surveys were distributed to the wardens in person in a generic-looking manila envelope that ensured anonymity. Anonymity was paramount; identifiable data was not collected except for the demographic survey, and a unique case number was assigned for participant recognition for data input reasons. After completing the survey, this researcher took each survey by hand and stored it securely in a locked location, where it will be stored securely for three years after the research conclusion. After receiving the surveys, the data was entered into IBM's SPSS version 29 and was analyzed with statistical significance set at $\alpha = .050$. This study utilized a one-sample t-test and a One-Way Analysis of Variance (ANOVA) to answer the research questions concerning the nature of stress experienced by game wardens and the role of experience in mediating stress levels.

Design

Multiple meetings were had with the Colonel of the Maine Warden Service. A formal letter outlining the research was provided to the Colonel and requesting permission to distribute the survey to current full-time game wardens. Upon receiving permission from the Colonel, this

researcher provided information regarding the research to multiple Lieutenants of the Maine Warden Service and obtained permission to attend two state trainings and three divisional meetings to distribute the surveys by hand in-person by this researcher which included the demographic questionnaire (Appendix A), the Organizational Police Stress Questionnaire (PSQ-Org) (Appendix B), the Operational Police Stress Questionnaire (PSQ-OP) (Appendix C) and the Informational Letter (Appendix D). The research strategy implemented encompasses a quantitative design to accumulate data regarding the stress levels encountered by game wardens. The questionnaires are directly aligned with the research questions to ascertain whether the game wardens experienced stress and to understand better how they quantify it.

Data analysis for the first research question, regarding game wardens' experience with occupational and organizational stress, was done by measuring occupational and organizational stress in all the participants. The independent variable was not manipulated, and the stress data, which is of interval/ratio type, served as the measured dependent variable. A sample t-test was employed to answer the research question of whether one type of stress appears more prevalent than the other among game wardens.

Data analysis for the second research question, concerning whether experience moderates the perception of stress in game wardens, utilized a one-way ANOVA to examine the relationship between the independent variable (experience) and the impact on the level of organizational and occupational stress as measured by the Police Stress Questionnaire-Organizational and Police Stress Questionnaire-Operational. The researcher utilized a quantitative survey methodology to measure the stress levels encountered by the study group. The survey and questionnaires gathered demographic data that will later be used for statistical analysis.

Research Questions

The research is guided by two research questions:

(RQ1): *Do Maine Game Wardens experience higher levels of operational stress compared to organizational stress, as assessed by the Police Stress Questionnaire Operational and Organizational?*

(RQ2): *Does years of service moderate the perception of stress in Maine Game Wardens as it pertains to the Police Stress Questionnaire-Operational and Police Stress Questionnaire-Organizational?*

Hypotheses

RQ1: *Do Maine Game Wardens experience higher levels of operational stress compared to organizational stress, as assessed by the Police Stress Questionnaire Operational and Organizational?*

- H_{01}: There are no statistical differences in the stress levels as measured by the Police Stress Questionnaire-Operational (PSQ-Operational) and the Police Stress Questionnaire-Organizational (PSQ-Organizational).
- Ha1: There is a statistical difference in the stress levels as measured by the PSQ-Operational and PSQ- Organizational.

RQ2: *Does years of service moderate the perception of stress in Maine Game Wardens as it pertains to the Police Stress Questionnaire-Operational and Police Stress Questionnaire-Organizational?*

- H_02: There is no significant relationship between the experience of game wardens and their stress levels as measured by the PSQ-Operational.
- Ha2: There is a significant relationship between the experience of game wardens and their stress levels as measured by the PSQ-Operational.
- H_03: There is no significant relationship between the experience of game wardens and their stress levels as measured by the PSQ-Organizational.
- Ha3: There is a significant relationship between the experience of game wardens and their stress levels as measured by the PSQ-Organizational

Participants and Setting

The individuals who were sampled in this study were all current full-time Maine Game Wardens (currently staffed with 107 game wardens, with 20 additional openings). According to the U.S. Bureau of Labor Statistics (2020), the national population of fish and game wardens was 7,230 in 2020. The group under study is a subpopulation of game wardens in the United States, specifically focusing on Maine Game Wardens. The target population of Maine Game Wardens was available to this researcher through convenience sampling. Convenience sampling was utilized because of the researcher's location and familiarity. The Maine Warden Service was chosen because it has a long history of enforcing laws protecting the wildlife of Maine, as well as the agency's complexity and the state's size.

There were two inclusion criteria for the wardens to participate in the study:

1.) They must be a current full-time Game Wardens for the State of Maine

2.) Must consent to the terms of the study, including anonymous measures, and be willing to provide honest feedback.

The sample chosen includes various demographic questions, including age, education, experience, and marital status. The researcher used G*Power software to conduct an a priori power analysis to determine the appropriate sample size. This was done in preparation for a one sample t-test and One-Way ANOVA, aiming to achieve sufficient power and detect potential effect sizes. A total sample size of 45 was calculated using the G*Power software to ensure a statistically significant response at a significance level of $\alpha = .05$.

Notification of this study happened by using a top-down approach. The Colonel of the Warden Service was briefed on the survey on multiple occasions, and eventually, this researcher received permission to survey the wardens. This researcher notified multiple lieutenants of the research and obtained permission to attend two training sessions as well as three division meetings to talk with the wardens about the research and distribute the surveys. This researcher distributed the surveys in person to mitigate the poor response rate. In-person distribution was selected to mitigate threats to validity and reliability posed by online surveys, which have been demonstrated to exhibit low response rates, sampling errors, and biases (Saleh & Bista, 2017).

At the training and meetings, wardens were provided a manila self-adhesive envelope that was sealed at the top. This researcher reviewed the purpose of the survey with all the participants prior to distributing the surveys (Appendix F). They were advised that all surveys were anonymous. They were provided an Informational Letter (Appendix D), a demographic questionnaire (Appendix A), the PSQ-OP (Appendix C), and the PSQ-ORG (Appendix B). The participants were advised to read the Informational Letter, which detailed the study's purpose and anonymity measures. They were then asked to complete the survey and questionnaire in person. This researcher then collected each survey immediately upon completion and secured it in a locked location.

Instruments

McCreary and Thompson's Police Stress Questionnaire-Organization (PSQ-Org) and Police Stress Questionnaire–Operational (PSQ-Op) were used for data collection in this research. The PSQ-Op and PSQ-Org is a self-assessment tool consisting of 20 items using a 7-point Likert-type scale that is used to better understand individual differences in the perception and

correlates of policing-specific stress in the past six months (McCreary et al., 2017). It is intended to evaluate stressors related to the organizational aspect (i.e., job context) in the profession of police officers (McCreary & Thompson, 2006 & Shane, 2010). Discriminant and validity were demonstrated on the PSQ-Org, a Cronbach's alpha reliability of .92 (McCreary et al., 2017; McCreary & Thompson, 2006; Shane, 2010). Police officers rated their responses to the questions, with 1 representing 'no stress at all' and seven signifying 'a lot of stress.' The overall PSQ-Org score was derived by adding up the responses to the first 20 items of the PSQ-Org.

The PSQ-Op is a self-administered tool comprising 20 items. Its purpose is to evaluate operational stressors (i.e., job content-related) pertinent to the role of police officers. The PSQ-Op has a strong Cronbach's alpha of over .93, demonstrating its ability to maintain construct, discriminant, and concurrent validity (McCreary et al., 2017; McCreary & Thompson, 2006). McCreary and Thompson (2006) undertook a separate study involving 197. The study involving Canadian police officers aimed to determine the discriminant validity of PSQ-Op and PSQ-Org and examined if these scores correlated with general stress metrics. The findings indicated that both PSQ-Op and PSQ-Org were dependable markers of police stress, as evidenced by their high Cronbach alphas and substantial corrected item-total correlations. While these measures exhibited some shared variance with other general stress metrics, this shared variance was relatively minor, which demonstrated their strong discriminant validity compared to general stress measures.

Previous studies that have utilized the PSQ-Op and PSQ-Org have shown evidence linking higher levels of both operational and organizational stress to critical incidents and higher levels of PTSD symptoms, depression, and anxiety (Mumford et al., 2014). McCreary et al.

(2017) determined cut-off scores when using the PSQ-Op and PSQ-Org. They argued that cut-off scores are helpful when interpreting descriptive statistics for agencies to understand better the organizational needs regarding stressors among their agency at any point. Low stress was 'defined in the PSQ-Org as <2.6; moderate stress is defined as a score of 2.7-3.9, and high stress is defined as a score of 4.0 or greater' according to McCreary et al. (2017, p.619). For the PSQ-Op 'low stress is defined as a score of <2.0, moderate stress is defined as a score of 2.1-3.4, and high stress is defined as a score of 4.7 or greater (McCreary et al., 2017, p.619).

Demographic Questionnaire

The participants were requested to complete a demographic survey (Appendix A) to provide a descriptive overview of the sampled population, including factors such as age, length of service, marital status, and educational level. The demographic survey was developed based on prior research conducted in law enforcement (Cromwell, 2022). Demographic variables were chosen as they align with law enforcement officers. Law enforcement officers' retirement eligibility is typically between 20 and 25 years of service. The demographic questions regarding the length of service consider this due to the uniqueness of the retirement eligibility. Gender was not asked in the demographic survey questionnaire due to the low number of full-time female Maine Game Wardens, which could potentially eliminate anonymity. Age was another variable on the demographic survey. Age was broken down into seven-year increments, which has been used in previous police studies (Balakrishnamurthy & Shankar, 2009).

Procedures

Prior to any data collection, the study went through a comprehensive review. The survey's content underwent a thorough review and was endorsed by the Dissertation Chair

responsible for this research. Early in the beginning stages of this research, the researcher had multiple casual conversations with the Colonel of the Maine Warden Service regarding the survey. He was very supportive of the topic and looked forward to seeing the results of the study. A letter of request was provided to the Colonel that outlined the study, how the data would be used, and the anonymity of the warden's identity.

After gaining the Chair's consent, this researcher applied to the Institutional Review Board (IRB) for approval. After obtaining the necessary permission from the IRB, this investigator attended three Maine Warden Division meetings to disburse the Informational Letter (Appendix D), the demographic questionnaire (Appendix A), the PSQ-OP (Appendix C), and the PSQ-ORG (Appendix B). There are five (5) divisions in Maine, and all divisions meet quarterly, in which all wardens must be in attendance. The three Division meetings this researcher attended were a southern Division meeting, a western/central/coastal division meeting, and a northern/downeast meeting. Before handing out the surveys, this researcher recited the prepared script (see Appendix F) to explain the purpose of the study and encourage wardens to become involved. It emphasized that it was an anonymous voluntary survey. The wardens were encouraged to read the Informational Letter, which clarifies the aim of the study, guarantees anonymity, and describes the process in the manila folder with the surveys. All the individuals who filled out the survey were full-time Maine Game Wardens.

This researcher also attended leadership and crisis intervention training, in which numerous current full-time Maine game wardens were present and distributed surveys. The exact informational process occurred in the training of disturbing the surveys as the division meetings. A total sample size of 45 was calculated using the G*Power software to ensure a

statistically significant response at a significance level of $\alpha = .05$. A total of 60 surveys were collected.

Data collection through paper surveys was verified with the warden service, ensuring no identifying information was traceable back to the participants. The hard copy of the survey had no personal identifying information that could eliminate anonymity. Personal knowledge of this researcher as a sworn federal law wildlife law enforcement officer has found that law enforcement officers are more likely to complete a survey when they can confirm that their survey is in no way traceable to them. Research also shows that in-person surveys achieved substantially higher response rates than other survey distribution modes (Nix et al., 2017). After IRB approval, the surveys were printed, each placed in a large manila envelope, and distributed to each warden in person during the Divisional meetings. Envelope contents included the Informational Letter, the PSQ-Op and PSQ-Orgs, and the demographic survey. A brief introduction of who the researcher is was provided (Appendix F), and clear instructions were provided for completing and returning the survey. The survey was distributed. The envelopes were self-adhesive for officers to seal the envelopes without having to self-moisten them.

This study examines organizational and operational stress within game wardens; the survey looks hard into what influences stress in individual game wardens. Therefore, the officer's anonymity is a top priority in data collection in this survey. Anonymity was preserved by assuring participating wardens that obvious identifiers (divisions, districts) were neither collected nor published, that he or she was only identified by an untraceable case number, and that hard copies of the survey would be shredded after three years. The data was input into a digital spreadsheet and stored on the researcher's password-protected computer. Digital files will be securely erased three years following the conclusion of the research.

The data collection instrument for this study was the Police Stress Questionnaire Operational/Organizational (PSQ-Op and PSQ-Org). The survey has two inclusion criteria: the Maine Warden must be a full-time and consent to do a survey. The "Informational Letter" (see Appendix D) was included in each envelope provided to obtain permission from the participants. The form invited the participant to partake in the study, the purpose of the study outlined the risk of the study, procedures to protect anonymity, participants' rights to decline to answer questions or to complete the survey, and the principal investigator's contact information and official status with Liberty University in accessible and understandable language. Wardens were asked to return the completed surveys by placing them back in the envelope. Completed surveys were secured with the researcher and collected upon completion of the Division meeting. Survey administration lasted approximately four weeks.

If the researcher had not collected more than 45 surveys to reach statistical significance, the researcher would have distributed them to the Game Wardens via SurveyMonkey. Some significant advantages of using online surveying methods include flexibility regarding question type/formatting, timeliness in administration, and ease of data entry. Some significant areas for improvement in using online surveys include impersonality, potential privacy issues, and a low response rate (Evans & Mathur, 2018).

Data Analysis

The statistical analysis was performed by using the IBM Statistical Package for Social Sciences (SPSS) version 29, a tool specifically designed for advanced analytics. Statistical analysis was set at $\alpha = .050$. This represents a significance level that there will be a 5% chance of rejecting the null hypothesis. Adhering to quantitative literature, a 5% significance level.

To address the first research question—which pertains to the prevalence of either operational or organizational stress among game wardens—the data from the PSQ-Org and PSQ-Op was compared. After respondents completed both questionnaires, their responses were correlated; hence, a non-parametric, one-sample t-test was employed. Descriptive statistics for the one-way sample analysis were conducted to show some essential details about the stress levels among Maine Game Wardens as measured by the PSQ-Op and PSQ-Org. A one-sample effect size was calculated to provide a comprehensive understanding of the significance of the differences in stress levels among Maine Game Wardens as measured by the PSQ-Op and PSQ-Org.

For the second research question, which explored the influence of experience on organizational and operational stress, a One-way analysis of variance (ANOVA) was used to determine the relationship between years of service and the perception of stress among Maine Game Wardens using the Police Stress Questionnaire –Operational (PSQ-Op). The effect sizes for the one-way ANOVA were examined to better understand the impact of years of service on the perception of stress among Maine Game Wardens, as measured by the Police Stress Questionnaire-Operational (PSQ-Op). Univariate statistics were used for the descriptive statistics of the dependent variable (perception of stress measured by the PSQ-Org) and independent variable (years of service). One-way analysis of variance (ANOVA) was used to determine the relationship between years of service and the perception of stress among Maine Game Wardens using the Police Stress Questionnaire –Operational (PSQ-Op). The effect sizes for the one-way ANOVA examined the impact of years of service on the perception of stress among Maine Game Wardens, as measured by the Police Stress Questionnaire-Operational (PSQ-Org).

CHAPTER FOUR: FINDINGS

Overview

The purpose of this research was to understand the complexities of stress experienced by game wardens, specifically Maine Game Wardens. This study focused on organizational and occupational stress, explicitly determining the significance of experience related to different types of stressors. A quantitative research design utilized an Analysis of Variance (ANOVA) to test the influence of experience on organizational and operational stress, and a sample *t*-test was employed to answer the research question of whether one type of stress appears more prevalent than the other among game wardens.

The following research questions and hypotheses guided this research:

(RQ1): *Do Maine Game Wardens experience higher levels of operational stress compared to organizational stress, as assessed by the Police Stress Questionnaire Operational and Organizational?*

H_{01}**:** There are no statistical differences in the stress levels as measured by the Police Stress Questionnaire-Operational (PSQ-Operational) and the Police Stress Questionnaire-Organizational (PSQ-Organizational).

H_{a1}**:** There is a statistical difference in the stress levels as measured by the Police Stress Questionnaire–Operational (PSQ-Operational) and the Police Stress Questionnaire-Organizational (PSQ-Organizational).

(RQ2): *Does years of service moderate the perception of stress in Maine Game Wardens as it pertains to the Police Stress Questionnaire-Operational and Police Stress Questionnaire-Organizational?*

H_{02}: There is no significant relationship between the experience of game wardens and their stress levels as measured by the PSQ-Operational.

H_{a2}: There is a significant relationship between the experience of game wardens and their stress levels as measured by the PSQ-Operational.

H_{03}*:* There is no significant relationship between the experience of game wardens and their stress levels as measured by the PSQ-Organizational.

H_{a3}*:* There is a significant relationship between the experience of game wardens and their stress levels as measured by the PSQ-Organizational.

Descriptive Statistics

This study utilized a quantitative research method to analyze and interpret the collected data. Descriptive statistics serve as a way to analyze the data by measuring the mean, standard deviation, and range, which provide an overview of the stress levels reported by game wardens. Specifically, the mean stress scores of 61.40 for the Police Stress Questionnaire Operational (PSQ-OP) and 61.47 for the Police Stress Questionnaire Organizational (PSQ-ORG) indicated close alignment between operational and organizational stress levels among wardens. Additionally, the standard deviations of 25.14 for PSQ-OP and 23.40 for PSQ-ORG show a significant variability in stress perceptions among individuals, which highlights the spectrum of responses within the group. The variability suggests that potential strategies to address stress in Maine Game Wardens may need to be individualized due to the widespread responses. In addition, the detailed analysis of mean stress scores across different years of service revealed how stress perceptions slightly shift over time, indicating potential influences of stress levels in career progression. Descriptive statistics in this study not only aided in a deeper understanding of stress among Maine Game Wardens but also provided a foundation for the inferential analyses that followed.

An analysis of variance was used to answer (RQ2) to understand better the effects of the years of service in the Maine Warden Service may have on organizational and operational stress

as surveyed with the Police Stress Questionnaire Operational (PSQ-OP) and the Police Stress Questionnaire Organizational (PSQ-ORG) survey instruments. A sample *t*-test was used to test if one type of stress, organizational or operational, is more prevalent than the other in Maine Game Wardens using the Police Stress Questionnaire Operational (PSQ-OP) and the Police Stress Questionnaire Organizational (PSQ-ORG) survey instruments to answer (RQ1).

The data were gathered through in-person surveys of current full-time Maine Game Wardens who are stationed across the state and represent various ranks. The mean, median, mode, f (frequency), and standard deviation were determined for both analyses to answer the research questions. The sample size was 60 or approximately 55% of the current full-time Maine Game Wardens. The response rate was 100%; all 60 Maine Game Wardens who were surveyed participated in the study.

Statistics

		PSQOP	PSQORG
N	Valid	60	60
	Missing	0	0
Mean		61.4000	61.4667
Median		61.0000	56.0000
Std. Deviation		25.13570	23.40177

The one-sample *t*-test conducted on the responses using a 7-point Likert scale revealed significant differences in stress levels between PSQ-Op and PSQ-Org among Maine Game Wardens. Both measures exhibited significant mean differences, with PSQ-Org suggesting slightly higher stress levels. The small p-values (<.001) and large *t*-statistics (18.92 for PSQ-Op and 20.35 for PSQ-Org) provided strong evidence to reject the null hypothesis, indicating statistically significant differences in stress levels between the two measures.

Additional descriptive statistics showed comparable average stress levels between PSQ-Op and PSQ-Org, with mean stress scores of 61.40 and 61.47, respectively. However, there was slightly higher variability observed in PSQ-Op, as indicated by its larger standard deviation (25.14 for PSQ-Op and 23.40 for PSQ-Org). Both measures showed large effect sizes (Cohen's d), indicating substantial differences in stress levels.

Analyzing the descriptive statistics for (RQ2) relating to the relationship between years of service and stress levels among Maine Game Wardens suggested that the PSQ-Op scores across experience groups revealed varying mean stress levels. Game wardens with 11-20 years of experience reported the highest mean stress score, followed by those with 21-30 years of experience, while those with 0-10 years of experience reported the lowest mean stress score.

The one-way ANOVA for PSQ-Op yielded a statistically significant relationship between years of service and stress levels, suggesting that approximately 11.8% of the variance in stress levels could be attributed to differences in years of service.

Results

Hypothesis

Null Hypothesis RQ1

The first null hypothesis for research question number one (RQ1) states that there are no statistical differences in the stress levels as measured by the Police Stress Questionnaire-Operational (PSQ-Operational) and the Police Stress Questionnaire-Organizational (PSQ-Organizational) among Maine State Game Wardens. A sample t-test was conducted to analyze this null hypothesis. The responses were recorded on a 7-point Likert scale with 20 questions

about either operational or organizational stress. Responses were recorded as "No Stress At All," "Moderate," and "A lot of Stress."

Table 1

One-Sample Test

	Test Value = 0						
			Significance			95% Confidence Interval of the Difference	
	t	Df	One-Sided p	Two-Sided p	Mean Difference	Lower	Upper
PSQOP	18.921	59	<.001	<.001	61.40000	54.9068	67.8932
PSQORG	20.345	59	<.001	<.001	61.46667	55.4213	67.5120

Based on the results of the one-sample *t*-test, the small p-values, and the large t-statistic, there is strong evidence to reject the null hypothesis and accept the alternative hypothesis (Ha1). There is a statistical difference in the stress levels measured by the PSQ-Op and PSQ-Org among Maine Game Wardens. The mean difference of 61.40 represents the average difference in stress levels between PSQ-Op and PSQ-Org. The positive mean difference indicates that stress levels measured by the PSQ-Org are, on average, higher than those measured by PSQ-Op among Maine Game Wardens.

An important aspect of the analysis is the confidence interval surrounding the mean difference between these two measures of stress. The confidence interval does not include zero, an important factor that determines the statistical significance of the results. The confidence level of 95% means that is not by chance. Additionally, the positive direction of the mean difference indicates that, on average, organizational stress levels (PSQ-Org) are higher than

operational stress levels (PSQ-Op) among the wardens. The absence of zero from the confidence interval reinforces the confidence in the reliability and significance of this difference, allowing for high certainty that the variance in stress levels between operational and organizational contexts is both meaningful and statistically supported.

Table 2

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
PSQOP	60	61.4000	25.13570	3.24500
PSQORG	60	61.4667	23.40177	3.02116

The descriptive statistics for the one-way sample analysis show some essential details about the stress levels among Maine Game Wardens as measured by the PSQ-Op and PSQ-Org. The mean stress scores indicate that, on average, Maine Game Wardens report similar stress levels for operational and organizational aspects of their work. For the PSQ-Org, the average stress level represented by the mean is 61.46, along with a standard deviation of 23.40, indicating the range of individual stress scores around the average. The standard error of the mean, 3.02, provides insight into the precision of the sample mean as an estimate of the broader population mean. The PSQ-Op shows a mean stress level of 61.40, with a standard deviation of 25.13 and a standard mean of 3.24. The standard error of the mean (SEM) for PSQ-Org at 3.02 and for PSQ-Op at 3.24 further demonstrates the precision with which these mean scores of 61.46 (PSQ-Org) and 61.40 (PSQ-Op) represent the broader population's stress levels. The slightly higher standard deviation and standard of error of the mean for the PSQ-Op suggest more variability in stress levels within the PSQ-Op survey. These SEM values assure us of the reliability of our mean

estimates, suggesting a high degree of confidence in these figures as accurate reflections of stress levels among Maine Game Wardens.

Table 3

One-Sample Effect Sizes

			Point	95% Confidence Interval	
		Standardize	Estimate	Lower	Upper
PSQOP	Cohen's d	25.13570	2.443	1.933	2.947
	Hedges' correction	25.46096	2.412	1.908	2.909
PSQORG	Cohen's d	23.40177	2.627	2.088	3.160
	Hedges' correction	23.70460	2.593	2.061	3.120

a. The denominator used in estimating the effect sizes.
Cohen's d uses the sample standard deviation.
Hedges' correction uses the sample standard deviation, plus a correction factor.

The one-sample effect sizes test the significance of the differences in stress levels among Maine Game Wardens as measured by the PSQ-Op and PSQ-Org. Cohen's effect size serves as an important measure of association, quantitatively understanding the extent and significance of stress disparities as measured by PSQ-Op and PSQ-Org. The Cohen effect size, which reflects the standardized mean differences, is more substantial for the PSQ-Op, of 2.44, indicating a large effect size. Since the 95% confidence interval does not include zero, it suggests that there is a statistically significant effect. Cohen's d is 2.62 for the PSQ-Org, which also indicates a large effect size, again which does not include zero, indicating a statistically significant effect. The effect sizes for both the PSQ-Op and the PSQ-Org are large, indicating that the observed difference in stress levels is not only statistically significant but also practically significant. The

95% confidence intervals for the effect sizes are relatively narrow, providing a reasonably precise estimate of the true effect. The significance of Cohen's effect size in this study suggests that there are significant stress disparities among Maine Game Wardens.

Null Hypothesis RQ2

The first hypothesis for research question number two (RQ2) states there is no significant relationship between the experience of Maine Game Wardens and their stress levels as measured by the PSQ-Operational (PSQ-Op). Univariate statistics were used for the descriptive statistics of the dependent variable (perception of stress measured by the PSQ-Op) and independent variable (years of service).

Table 4

Descriptives
PSQOP

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
0-10	22	55.6818	23.41425	4.99194	45.3005	66.0631	24.00	121.00
11-20	22	69.9091	23.50058	5.01034	59.4895	80.3287	28.00	120.00
21-30	14	61.6429	27.21031	7.27226	45.9321	77.3536	30.00	109.00
30	2	29.0000	11.31371	8.00000	-72.6496	130.6496	21.00	37.00
Total	60	61.4000	25.13570	3.24500	54.9068	67.8932	21.00	121.00

The PSQ-Op score analysis indicates notable variations in perceived stress levels across different experience groups among Maine Game Wardens. In the 0-10 years of experience category, wardens report a mean PSQ-Op score of 55.68, with a 95% confidence interval suggesting that

the true population mean falls between 45.30 and 66.06. In the 11-20 years of experience group, the mean score increases to 69.90, indicating a potential elevation in perceived stress levels compared to the less experienced group. The 95% confidence interval for this group ranges from 59.48 to 80.32. Game wardens with 21-30 years of experience report a mean PSQ-Op score of 61.64, with a confidence interval of 45.93 to 77.35, indicating a moderate level of perceived stress. However, the small sample size of N=2 for 30 years and up and the group confidence level of -72.64 to 130.64 indicate uncertainty due to the limited data points.

Table 5

ANOVA
PSQOP

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	4412.595	3	1470.865	2.506	.068
Within Groups	32863.805	56	586.854		
Total	37276.400	59			

The one-way analysis of variance (ANOVA) was conducted to determine the relationship between years of service and the perception of stress among Maine Game Wardens using the Police Stress Questionnaire –Operational (PSQ-Op). The analysis produced an F-statistic of 2.50, which indicates the ratio of the variance among the group means to the variance within the groups. This F-statistic suggests that there are differences in stress perception that could be attributed to the years of service, as it represents the variance between different years of service groups being more significant than the variance observed within each group. Added with a p-value of 0.0068, which is significantly below the threshold of 0.05, the results lead to the

rejection of the null hypothesis (H02). The null hypothesis stated that there is no significant difference in the perception of stress among Maine Game Wardens across different years of service. The rejection of this hypothesis, supported by the F-statistic and the low p-value, indicates a statistically significant relationship between years of service and the stress levels measured by the PSQ-Op. The findings suggest that the duration of service among Maine Game Wardens significantly impacts their perceived stress levels, with the F-statistic serving as an essential measure in determining the significance of the variance observed between groups compared to that within groups.

Table 6

ANOVA Effect Sizes[a,b]

		Point Estimate	95% Confidence Interval	
			Lower	Upper
PSQOP	Eta-squared	.118	.000	.250
	Epsilon-squared	.071	-.054	.210
	Omega-squared Fixed-effect	.070	-.053	.207
	Omega-squared Random-effect	.024	-.017	.080

a. Eta-squared and Epsilon-squared are estimated based on the fixed-effect model.
b. Negative but less biased estimates are retained, not rounded to zero.

The effect sizes for the one-way ANOVA examining the impact of years of service on the perception of stress among Maine Game Wardens, as measured by the Police Stress Questionnaire-Operational (PSQ-Op), using the Epsilon-Squared, the Omega-squared fixed effect and Omega-squared random effect provide additional understanding to the significance observed.

Epsilon-squared was utilized to estimate the proportion of total variance in stress perceptions accounted for by differences in years of service. This measure indicated that approximately 7.1% of the variance in stress perceptions could be attributed to the length of service.

The Omega-squared fixed effect, with a point estimate of 7%, supports that the differences in years of service contribute to the variability in stress perceptions. In addition to the Omega-squared random effect, the point estimate indicates that 2.4% of the variability in stress perception is attributed to the random effect of years of service, suggesting that when considering the potential generalizability of the findings to broader populations, years of service remain a significant, determinant of stress perceptions.

Null Hypothesis RQ2

The second hypothesis for research question number two (RQ2) states there is no significant relationship between the experience of Maine Game Wardens and their stress levels as measured by the PSQ-Organizational (PSQ-Org). Univariate statistics were used for the descriptive statistics of the dependent variable (perception of stress measured by the PSQ-Org) and independent variable (years of service). Univariate provides baseline information about each variable individually, which is necessary before exploring relationships between variables. Understanding the distribution, central tendency, and variability of each variable is crucial for calculating measures of mean, which provides the average stress level and the median, the midpoint of stress perceptions.

Table 7

Correlations

		PSQOP	PSQORG
PSQOP	Pearson Correlation	1	.782**
	Sig. (2-tailed)		<.001
	N	60	60
PSQORG	Pearson Correlation	.782**	1
	Sig. (2-tailed)	<.001	
	N	60	60

**. Correlation is significant at the 0.01 level (2-tailed).

Bivariate statistics were used to examine the relationship between the two variables, and the Pearson correlation analysis was conducted between PSQOP (Police Stress Questionnaire Operational scores) and PSQORG (Police Stress Questionnaire Organizational scores). The Pearson correlation coefficient quantifies the strength and direction of the linear relationship between two continuous variables, making it a fundamental bivariate statistical measure. The significant correlation found between PSQOP and PSQORG, as indicated by the correlation coefficient (.782) and the significance level ($p < .001$), demonstrates a statistically significant bivariate relationship, underlining the interconnectedness between operational and organizational stress levels among the study's participants. This significant correlation highlights a substantial alignment between operational and organizational stress perceptions among the wardens, indicating that individuals who experience higher levels of operational stress are also likely to report elevated levels of organizational stress.

Table 7

Descriptives

PSQORG

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean Lower Bound	95% Confidence Interval for Mean Upper Bound	Minimum	Maximum
0-10	22	52.1364	20.13359	4.29250	43.2096	61.0631	24.00	103.00
11-20	22	70.2727	21.73911	4.63479	60.6341	79.9113	31.00	123.00
21-30	14	64.7857	26.97058	7.20819	49.2134	80.3581	31.00	119.00
30	2	44.0000	5.65685	4.00000	-6.8248	94.8248	40.00	48.00
Total	60	61.4667	23.40177	3.02116	55.4213	67.5120	24.00	123.00

The descriptive statistics provide insight into the relationship between the experience of Maine Game Wardens and their stress levels as measured by the PSQ-Org. The mean stress levels vary across the different experience groups. In the 0-10 years' experience group, the mean stress level is 52.13 (SD=20.13), indicating a relatively moderate stress level among Maine Game Wardens. The mean stress level increases to 70.27, indicating a significant rise in stress levels for those with 11-20 years of experience. The mean stress level is 64.78 in the 21-30 years of experience, suggesting a lower stress level compared to the 11-20 years group but higher than the 0-10 years group. The 30-year or greater group only had two observations, with a mean of 44. While the mean is lower, the wide confidence interval suggests a lack of precision due to the small sample size. There is a trend of increasing stress levels with increasing years of experience up to 20 years.

Table 8

ANOVA

PSQORG

	Sum of Squares	Df	Mean Square	F	Sig.

Between Groups	4385.622	3	1461.874	2.932	.041
Within Groups	27925.312	56	498.666		
Total	32310.933	59			

The one-way analysis of variance (ANOVA) was conducted to determine the relationship between years of service and the perception of stress among Maine Game Wardens using the Police Stress Questionnaire –Operational (PSQ-Org). The p-value of .041 is less than the significance level; the null hypothesis is rejected. Based on the statistical analysis, evidence suggests a significant relationship between the experience of Maine Game Wardens and their stress levels as measured by the PSQ-Org. The F-statistic of 2.93 and the p-value of 0.041 suggest that the variation in stress levels between groups is not likely due to random chance alone.

Table 9

ANOVA Effect Sizes[a,b]

		Point Estimate	95% Confidence Interval	
			Lower	Upper
PSQORG	Eta-squared	.136	.000	.271
	Epsilon-squared	.089	-.054	.232
	Omega-squared Fixed-effect	.088	-.053	.229
	Omega-squared Random-effect	.031	-.017	.090

a. Eta-squared and Epsilon-squared are estimated based on the fixed-effect model.
b. Negative but less biased estimates are retained, not rounded to zero.

The effect size measured with the ANOVA for the PSQ-Org provides additional information into the significance of the observed differences in stress levels among experience groups of the Maine Game Wardens. SPSS keeps negative values in the estimates of effect sizes like Epsilon-squared and Omega-squared to provide a more accurate picture rather than rounding them to zero. This approach acknowledges that while the estimates might mathematically dip below zero due to sample variations, they offer a closer reflection of the true effect in data; hence the negative but less biased estimates noted in the table. The eta-squared point estimate suggests that approximately 13.6% of the variability in the PSQ-Org scores can be explained by game wardens' differences in experience levels. The Epsilon-squared indicates that about 8.9% of the variance in stress levels is explained by years of experience. The Omega-squared Fixed Effect indicates that 8.8% of the variance in stress levels is attributed to years of experience. The Omega-squared Random Effect suggests that 3.1% of the variability in stress levels is due to individual differences.

The effect size measures suggest a moderate to moderately significant effect of years of experience on the perception of stress from the PSQ-Org scores among Maine Game Wardens. The observed effects are not only statistically significant but also have practical significance in explaining meaningful proportion of the variance of stress levels.

CHAPTER FIVE: CONCLUSIONS

Overview

The following chapter outlines the research, the theoretical framework, implications and limitations of the study, and recommendations for future research. This quantitative study aimed to better understand organizational and occupational stress in Maine Game Wardens using McCreary and Thompson's Police Stress Questionnaire-Organizational (PSQ-Org) and Police Stress Questionnaire–Organizational (PSQ-Op). It will also add to the limited literature that is available on stress in game wardens. The survey instruments were distributed to sixty Maine Game Wardens. The research questions sought to explain why Maine Game Wardens experience higher levels of operational stress compared to organizational stress, as assessed by the Police Stress Questionnaire Operational and Organizational, and if years of service moderate the perception of stress in Maine Game Wardens as it pertains to the Police Stress Questionnaire-Operational and Police Stress Questionnaire-Organizational.

Discussion

While stress in law enforcement has been extensively researched, limited attention has been paid to the stress game wardens, in particular, face, warranting further investigation. Extensive research has been dedicated to understanding stress's impact on traditional law enforcement officers. The purpose of this quantitative study was to define the relationship more clearly between different stresses and game wardens and how experience influenced organizational and occupational stress. Stress in policing can be classified into general categories: inherent police work such as shift work, overtime, court appearances, traumatic work exposures, and internal stress associated with organizational stressors (Shane, 2010). This

research examined the inherent, also known as occupational or operational stress to organizational stress in Maine Game Wardens and the influence of experience in the field on both inherent (operational/occupational) stress on Maine Game Wardens.

Research Question 1

Research Question 1 asked, do Maine Game Wardens experience higher levels of operational stress compared to organizational stress, as assessed by the Police Stress Questionnaire Operational and Organizational?

Based on the results of the one-sample *t*-test, there is a statistical difference in the stress levels as measured by both the Police Stress Questionnaire-Operational (PSQ-Op) and Police Stress Questionnaire-Organizational (PSQ-Org) among Maine Game Wardens. The positive mean difference indicates that stress levels measured by the PSQ-Org are, on average, higher than those measured by PSQ-Op among Maine Game Wardens. However, the mean stress levels for the PSQ-Op and PSQ-Org are very similar, and the small numerical difference may not be significant when agencies analyze. Also, it should be noted that there was a slightly higher standard deviation and standard of error of the mean for the PSQ-Op, which suggests a little more variability in stress levels within the PSQ-Op survey. The average stress level for the PSQ-Org was 3.073, which is represented as just under moderate stress on the Likert scale on the PSQ-Org. The PSQ-Op average stress level on the Likert scale was 3.070, which is represented as just under moderate stress. This variability is significant because it suggests that experiences of operational stress among Maine Game Wardens are more diverse, potentially influenced by a wider range of factors or situations encountered in their operational duties. Despite this variability, the average stress levels for both PSQ-Op and PSQ-Org are closely aligned, each

falling just under moderate stress on their respective Likert scales. This alignment underscores the overall similarity in stress levels experienced by wardens in both operational and organizational contexts, highlighting the need for comprehensive stress management strategies that address both dimensions of their professional experience.

The Police Stress Questionnaire-Organizational (PSQ-Org) is a questionnaire with twenty questions that measure *organizational* stress, whereas the Police Stress Questionnaire-Operational (PSQ-Op) is a twenty questionnaire that measures *operational* stress. The PSQ-Org inquired about the stress that may be caused by a lack of resources, staff shortages, internal investigations, and other questions pertaining to the demands of the workplace. Stress levels were measured by each of these variables, which varied from participant to participant. Organizational stress is defined as the stress that a department or agency has control of that affects the employee. Lack of resources and staff shortages can directly affect wardens, causing them to feel stress due to limited backup and not having the correct equipment in critical situations that could potentially increase stress. The questionnaire responses were varied due to multiple factors, including types of districts (rural vs. urban), type of supervisor, tenure in the field, and other factors. Some districts may require more equipment or newer equipment than others due to the nature of the job. Wardens who have been on for a longer time have acquired more equipment than new recruits, resulting in the potential effect of stress levels. Staff shortages also could influence individual wardens depending on how their district is staffed. Some districts, particularly in very rural areas, have a hard time recruiting wardens to work in those areas due to the lack of schools, employment for spouses, distances from friends and family, and other social factors. That, combined with the lack of backup, could create a more stressful environment for wardens in very remote areas compared to wardens who are in more of

an urban area that has a fully staffed district. Organizational stress can influence individuals differently because of a multitude of factors, which is important to consider.

Numerous studies have been conducted to better understand stress in law enforcement, and they have identified organizational stressors as the cause of critical stress (Shane, 2010; Violanti, 2018). Recently, Chan and Andersen (2020) conducted research on over a hundred officers in the field using the PSQ-Org and PSQ-Op instruments identified no significant differences in officers' self-reports of organizational and operational stress. However, they did find that organizational and occupational stress can contribute to injuries and depression. However, some studies show that organizational stress is more significant than occupational stressors in law enforcement (Collins, 2003; Galanis et al., 2019). The Police Stress Questionnaire-Operational (PSQ-Op), a 20-item questionnaire, was used to measure inherent stress among Maine Game Wardens as well. Inherent stress in the law enforcement field is stressors that originate from the demands of the job itself (Chae & Boyle, 2013). This includes sudden transformations from calmness to a high-stress event that results in a fight or flight response (Chae & Boyle, 2013). Research suggests that the constant hypervigilance that officers experience can result in increased levels of stress (Gilmartin, 2002; Territo & Sewell, 2007; Violanti et al., 2016). Game wardens and traditional officers both experience hypervigilance and the fight or flight response in high-stress situations but in different environments and different types of calls of service. The hypervigilance experienced by game wardens is closely associated with the demanding nature of their roles, especially when confronted with high-stress incidents that require immediate and decisive action. This state of heightened alertness is particularly prevalent in situations such as search and rescue operations, where the urgency and unpredictability demand constant vigilance, and first responder scenarios, including responding

to car accidents or active shooter events, where rapid assessment and response can be critical to the outcomes.

Moreover, this heightened state of readiness extends to a range of other stressful situations inherent to their duties, such as enforcing laws in remote areas and encountering potentially dangerous armed and dangerous individuals in remote areas with limited backup. These situations are examples of the multifaceted stressors game wardens face, highlighting the importance of strategies aimed at managing stress and supporting their mental health and well-being. Through understanding the specific contexts that contribute to hypervigilance, there can be better development of support systems and interventions tailored to mitigate the psychological impact of these high-stress conditions on game wardens. Limited studies have focused on the organizational and occupational stress experienced by game wardens. Walsh and Donovan's 1984 study pioneered the evaluation of perceived stress levels among officers, identifying organizational and inherent stress factors. Eliason (2006) explored the transition of game wardens from their traditional roles to more conventional law enforcement duties and its effects. The role of game warden, first established in Massachusetts in 1739 as "Informers of Deer," initially focused on protecting deer and, later, moose populations from illegal hunting (Commonwealth of Massachusetts, 2024). By the late 18th century, Maine appointed game wardens to safeguard its deer and moose. Over time, the responsibilities of game wardens have evolved to meet new challenges. By the 1960s, the Maine Warden Service extended its patrol areas to include inland waters, with technological advancements and the introduction of vehicles like ATVs, snowmobiles, and boats adding complexity to their roles. The expansion of the Warden Service K-9 team enhanced search and rescue operations. In the 2000s, the Maine

Warden Service introduced technological updates, including digital record-keeping and online reporting (History: Warden Service: Maine Dept of Inland Fisheries and Wildlife, 2024).

Despite these advancements and the broadening scope of duties, there has been a noticeable shift towards a more traditional law enforcement model. Van Patten et al. (2014) suggest that this shift could be attributed to the declining hunting and fishing population, increasing conventional crimes in areas patrolled by game wardens. A study by Palmer and Bryant (1985) revealed that 77% of surveyed Virginia Game Wardens would choose their job again despite the challenges, with 14% opting otherwise and 7% unsure. This raises the question of whether the satisfaction levels and career choices among Virginia Game Wardens would remain the same today, given the decrease in hunting and fishing activities and the increase in traditional law enforcement duties. Game wardens report a high level of job satisfaction, largely due to the alignment between their passion for outdoor activities and the nature of their work.

The shift in game wardens' responsibilities may also be linked to the nationwide shortage of law enforcement officers. Over the past three years, retirements and resignations have led to unfilled positions (Police Executive Research Forum, 2023), resulting in game wardens having to handle serious situations like domestic violence and accidents. As sworn officers, they are trained and capable of managing these incidents as first responders.

Change within organizations is inevitable and necessary for growth. However, altering the core responsibilities of a role, such as that of game wardens, can adversely affect the department and its employees. Although game wardens receive similar training to other law enforcement personnel, their unique role in conserving natural resources and supporting the community is vital.

Consistent with previous studies, the results of this study suggested that organizational stress is more stressful than inherent stressors in Maine Game Wardens, but not by much. Upon closer examination, the highest stressor on the PSQ-Op was number nineteen, pertaining to feeling like they were always on the job. Maine game wardens have a longstanding obligation to be on-call and ready to respond to emergency incidents within their scope of duty. A notable benefit of their role includes the benefit of a take-home truck, which serves not only as a tool for their professional responsibilities but also as a personal privilege. However, this benefit comes with the significant responsibility of being on-call, requiring them to remain prepared to respond to emergencies at any moment.

Additionally, the visibility of their role in the community means that game wardens often find themselves effectively "always on duty." The community frequently recognizes them and seeks their expertise for work-related questions in public settings, such as during grocery shopping or at a child's sporting event. This constant public recognition further blurs the lines between their professional and personal lives, underscoring the unique challenges that come with their position. The integration of their work into daily life highlights the need for consideration of additional research on work schedules and policies on callouts to ensure they can manage the dual expectations of their professional duties and community roles effectively. Over 61% of the respondents in the survey stated that feeling like they were always on the job was moderate to a lot of stress, with the mean being 4.23 on the Likert scale. In Ledford et al. (2021) research, they found that lacking time to spend with family and friends (M = 4.27) and always being on the job (M = 4.27) was the highest as well among game wardens they studied using the PSQ-Op. Eliason (2014) indicated in his research that Montana Game Wardens who were surveyed indicated that

some challenging aspects of the job included working long hours and missing family time on weekends and holidays.

Interestingly, the lowest on the PSQ-Op was number three, overtime demands, with an average of 2.05 on the Likert scale, which was one step above not at all stress. According to the Department of Agriculture, Maine is the most forested state in the country, with forest covering 89% of the total land (States With the Most Tree Cover. (2022). *U.S. News).* The Maine Warden Service is responsible for providing search and rescue services across the state, irrespective of the location's season or remoteness. This ensures that a warden in the district is dispatched to respond to emergencies. From June 1997-June 1998, 10,780 search hours were documented by the warden service, which in, addition to responding to complaints, fishermen and hunters checked, boats inspected, snowmobile patrol as well as responding to nuisance or injured wildlife (Peabody & Santaguida, 2000). Historically, work related requirements have been an issue with the Maine Warden Service, dating back to the mid-1970's, when game wardens were on salary working as many hours as necessary "to get the job done, often missing days off" (Peabody & Santaguida, 2000, p. 41). After the Federal Fair Labor Standards Act was passed in the mid-1980's the work schedule shifted to six days on duty with two days off, as well as 24 hour call out, with at least two people working in a section (Peabody & Santaguida, 2000). In the recent years Maine Wardens shifted overtime hours to compensation hours when taking time off. For example, a warden who worked over their allotted time they would shave off the time on another day. In other words, they would work late one night and go in late the next day to compensate for the gain of hours. Ledford (2021) reported that conservation officers reported elevated levels of stress when required to work on their days off, including court appearances and callouts.

The most stressful factor on the PSQ-Org was number eighteen, dealing with the court system. Just over 61% of respondents found it to be moderate to a lot of stress to deal with the court system, with a mean of 4.13 (moderate stress on the Likert scale). Interestingly, Ledford (2019) found that testifying in court for conservation officers was the among the highest rated stressors according to participant responses. The judicial system predominantly addresses criminal offenses, whereas cases pertaining to natural resources are usually handled with less priority. There is a notable disparity in media coverage and public oversight between these two types of cases. Criminal proceedings tend to attract more media attention and are subjected to greater public scrutiny compared to cases related to wildlife even though it is considered unacceptable (Forsyth, Gramling, & Wooddell, 1998). Wildlife crimes are also often treated lightly in the court system, even in the most serious wildlife offenses the public can view it as less of offense directly involving humans (Sosnowski et al., 2022). Wildlife cases that proceed to court often become a source of stress for game wardens, primarily due to the extensive effort they invest in building these cases, combined with the risk of their work being undervalued or dismissed due to the court's apparent disinterest in prosecuting such cases.

The moderate stress levels reported by game wardens are significantly influenced by their interactions with the judicial system, particularly due to the challenges of working alongside prosecutors and judges who may lack a thorough understanding of wildlife laws. This lack of familiarity can lead to frustrations for wardens, who are dedicated to enforcing these laws. According to Carter (2006), wardens' perceptions of judges vary widely, from those who appear indifferent towards wildlife crimes to those who are actively committed to combating such offenses. This variability in judicial attitudes towards wildlife crimes adds another layer of complexity to the wardens' roles, as they navigate a legal landscape where the enforcement of

wildlife laws is not always prioritized. Such disparities in the legal treatment of wildlife crimes can increase stress levels experienced by wardens, underscoring the need for greater awareness and education within the judicial system regarding the importance of protecting the resource.

The majority of criminal and wildlife cases are resolved through plea bargains before reaching the courtroom. For those cases that do proceed to trial, game wardens often experience heightened stress. This stress stems from the necessity of attending court hearings and coping with the unpredictability of last-minute decisions made in the lead-up to the trial. Such circumstances add additional pressures on game wardens, who must work through the complexities of the legal process while fulfilling their enforcement duties.

The least stressful factor on the PSQ-Org was number fifteen: if you are sick or injured, your co-workers seem to look down on you. Over 86% of the respondents felt no to moderate stress regarding number fifteen, and the mean on the Likert scale was 1.96 (one representing no stress). The relatively low levels of stress reported by the participants regarding illness, injury, or disapproval from coworkers can likely be attributed to the strong sense of camaraderie within the law enforcement community. This brotherhood fosters an environment of mutual support, where individuals rally around their colleagues during times of need. Additionally, the operational structure of the wardens' work ensures that even when a warden is unable to patrol due to sickness or injury, the remaining wardens effectively manage to cover their responsibilities. This team approach to managing absences minimizes the impact on the district's operations and reduces potential stressors related to leaving the team understaffed.

Maine Game Wardens, as state employees, are entitled to the state's employee benefits, including paid time off and sick leave, which are allocated based on a sliding scale that rewards

tenure with increased time off. This system allows wardens the flexibility to accrue and utilize their leave according to personal needs. Despite the potential for increased workload on neighboring district wardens when a warden takes leave, as there is no practice of bringing in replacements to cover shifts, this situation does not significantly elevate stress levels. This resilience is indicative of a strong bond between the wardens. This brotherhood not only is efficient for the agency but also contributes to the relatively low stress levels reported by wardens in relation to judge for taking time off for being sick or injured. Due to the lack of literature comparing organizational and operational stress levels among game wardens, it is challenging to compare the results of this study to those of other studies. Accordingly, there are studies on traditional law enforcement that support the idea that occupational factors are more stressful than organizational factors and vice versa. However, the study revealed that the most stressful factor on the PSQ-Op was the same or very similar to Ledford et al.'s (2021) study findings. It is essential to recognize work's impact on family and social life as it is associated with distress and burnout. Recognizing the impact of work on family and social life is crucial for the well-being of employees and the overall health of organizations. This awareness highlights the relationship between professional obligations and personal satisfaction, with research by Queirós et al. (2020) showing a significant link between work-related stress and personal distress, as well as the contribution of social strains to burnout. By understanding this connection, organizations can adopt a well-rounded approach to employee health, emphasizing mental and emotional well-being alongside physical health. Such recognition can lead to policies that promote work-life balance, enhancing productivity, job satisfaction, and employee retention. Moreover, it informs the creation of workplace support systems, such as counseling services, critical incident stress management teams and stress management programs, creating a

culture of care that benefits both individuals and the organization. Ultimately, acknowledging the influence of work on personal life strengthens the employer-employee relationship and creates a positive organizational culture, making it an important aspect of the workplace.

Queirós et al. (2020) examined the indirect effects of work-related stress on personal well-being, by examining the relationship between job stress, stress symptoms, and burnout, revealing moderate to strong correlations among them. The results underscore the growing interest in researching the causes and consequences of stress and burnout within law enforcement. This research highlights the need for a deeper understanding of these challenges, especially in high-stress occupations such as policing. Game wardens represent an under-researched group facing similar stress-related issues.

Research Question 2

Research Question number two asked, does years of service moderate the perception of stress in Maine Game Wardens as it pertains to the Police Stress Questionnaire-Operational and Police Stress Questionnaire-Organizational? The analysis of the PSQ-Op scores indicated that there was a significant difference in perceived stress levels across different experience groups among Maine Game Wardens. In the 0-10 years of experience category, wardens report a mean PSQ-Op score of 55.68; in the 11-20 years of experience group, the mean score increases to 69.90; game wardens with 21-30 years of experience report a mean PSQ-Op score of 61.64. There were only two respondents who had 30 years or more; due to this low sample number, there needed to be more certainty due to the limited data points. Balakrishnamurthy and Shankar (2009) also found that officers with experience between 11 and 20 years had markedly higher amounts of stress than their counterparts, including the entire group taken together. Ledford

(2022) also found that stress levels were higher among officers with longer tenures, yet interestingly, stress decreased with age. This heightened stress in the 11 to 20 years' experience bracket could stem from a combination of personal and professional factors. On a personal level, officers in this stage often struggle to balance family responsibilities with demanding job schedules, exacerbating stress from feeling as if they are always on duty. Financial pressures are another contributing factor, with potential obligations such as supporting children, managing costs related to divorce and child support, or facing limited opportunities for increased earnings at a point in their careers where switching jobs is less viable due to being half-way or near retirement. Professionally, the initial excitement of the job may diminish over time, shifting the perception of the role from a career aspiration to just a job. Given that Game Wardens are eligible for retirement after 25 years of service, it's understandable why those with 11-20 years of experience report significantly higher stress levels compared to their counterparts in the other experience brackets. As stated previously, limited research has been conducted on game wardens and stress. However, there has been a significant number of studies conducted on traditional law enforcement. The studies that have been done on game wardens and stress indicated that different demographics influence stress levels (Eliason, 2006; Ledford et al., 2021; Oliver & Meier, 2006). Oliver and Meier's (2006) research indicated that military experience (no military experience), marital status (single), gender (female), and education (no college education) all had an impact on stress levels in conservation officers. Studies have shown that experience in law enforcement has increased resiliency among officers, as they have exhibited overall less stress (Robinson, 1997). Gutshell et al. (2017) research indicated that officers with 0-14 years of experience manifested burnout more than veteran officers. However, Senior officers reported higher levels of perceived stress with lower levels of resilience, which suggests

that they may have developed coping mechanisms. There has been research done that suggests that officers with 5-10 years of service are at greater risk for PTSD and depression compared to officers with 0-4 years, 11-20 years, or 20+ years (Lilly & Curry, 2020).

Interestingly, Ledford et al. (2021) indicated a seemingly contradictory finding with game wardens that age and inherent stress featured a negative relationship. In other words, game wardens reported lower levels of stress as age increased. However, they found that the game wardens who held longer tenures in the field experienced higher stress levels. Upon further investigation, Ledford et al. (2021) suggested that while years of experience might increase stress levels, age could partially protect from the impact of stress.

Implications

The current research studied the relationship between organizational and operational stress among Maine Game Wardens. The study's findings showed a statistical difference in stress levels as measured by the Police Stress Questionnaire-Operational (PSQ-Op) and Police Stress Questionnaire-Organizational (PSQ-Org) among Maine Game Wardens. On average, the stress levels measured by the PSQ-Op were higher than those measured by PSQ-Org among Maine Game Wardens. This study also explored the influence of tenure on organizational and occupational stress levels. Both the PSQ-Op and PSQ-Org scores indicated a notable difference in perceived stress levels across different experience groups among Maine Game Wardens, specifically in the experience group with 11-20 years of service.

This study is unique because of the limited research on both occupational and organizational stress among game wardens, particularly regarding how stress impacts tenure. Additionally, it is significant because Maine boasts the highest job concentration and location

quotients for game wardens across the United States, according to the U.S. Bureau of Labor Statistics (2020). Maine also has the highest proportion of forested land in the country, which means the duties of game wardens are closely aligned with traditional roles, due to the vast areas available for hunting and fishing, which wardens traditionally enforce. This study highlights the significance of organizational and operational stress among game wardens, highlighting a notable gap in research within this field. Previous studies have started to explore various job aspects potentially contributing to stress, including the rise in tasks traditionally associated with game wardens. While research on stress in traditional law enforcement roles is abundant, there is a pressing need for further study to determine which type of stress, organizational or operational, exerts a more significant impact. Evidence suggests that both types of stress uniquely affect burnout and distress among law enforcement officers, yet it is universally acknowledged that they have detrimental effects.

One critical finding from this study is the need to address the prevalent issue of game wardens feeling perpetually on duty due to the 24-hour on-call requirements. This requirement, however, must be balanced against the necessity for the warden service to be available for public emergencies. The Iowa Department of Natural Resources, South Carolina, and Texas conservation officers, for instance, are obligated to be on call 24/7. Maine offers a similar 24-hour call-out system but compensates wardens during their shifts and ends after their normal working hours. Although being on standby does not guarantee a call-out, it poses significant challenges to their personal lives, including family commitments and sleep disruption. Sleep deprivation not only adversely affects physical health but also reduces vigilance, reaction time, and other critical survival skills essential for law enforcement officers. A 2016 study highlighted that fatigue impacts the prefrontal cortex, crucial for decision-making and maintaining calm in

stressful situations, and noted an increase in risk-taking behaviors among sleep-deprived individuals, especially in high-pressure environments like emergency rooms (Scism, 2024).

Furthermore, research concerning on-call doctors indicates a considerable impact on their families, with those having spouses and children being more affected. This highlights the broader implications of on-call duties, extending beyond the professionals to their families, thereby enriching the discussion on the need for more research in this area. Addressing these issues requires a multifaceted approach, considering both the operational demands on game wardens and the personal toll such requirements exact on them and their families.

Agencies need to consider the impact that a 24 hour callout has on its officers. Maine Game Wardens have started to address this, but more research needs to be conducted to determine a balance that could meet the needs of the agency as well as the warden. One approach that has been used to help with this problem is workload-based approach to staffing. Research has shown that 10 hour shifts provide a higher quality of life, average more sleep and less overtime (Amendola et al., 2011). Another scheduling option involves adopting twelve-hour shifts over a 14-day cycle, designed with a balanced mix of work periods and rest intervals. This pattern includes two consecutive workdays, followed by two days off, a stretch of three work days, another two-day break, and ends with two work days and a three-day rest period. Such a schedule averages to a 42-hour workweek, with officers accumulating an extra four hours over the bi-weekly cycle. This structure ensures officers have rotating days off, including every other weekend, which aligns with the cycle's bi-weekly repetition. Compared to 10-hour shifts, twelve-hour shifts are more effective in fulfilling workload demands, providing 24-hour coverage each day, as opposed to 30 hours, thereby enhancing service delivery (Amendola et al., 2011).

The first research question posed in this study was to determine better if one type of stress (organizational/operational) was more influential. The study revealed that, indeed, there was a significant statistical difference between organizational and operational stress, however, the extent of this difference was found to be minimal. This finding highlights the complexity of stress factors in game wardens, underscoring a critical area for future research given the scarcity of studies directly comparing these stress types among game wardens.

Game Wardens, specifically Maine Game Wardens, often work alone in remote areas. Seeing that Game Wardens are law enforcement officers who patrol remote areas, this researcher analyzed stress in rural traditional law enforcement. Brooks and Piquero (1998) found that large urban police departments were at higher risk for organizational stress, whereas smaller urban departments had higher emotional stress. Factors such as lack of equipment, staffing, and the "fishbowl effect" have been argued to be the leading cause of organizational stress in rural departments (Wu & Wen, 2019, p.437). Maine's predominantly rural landscape, interwoven with tight-knit communities, intensifies this "fishbowl effect." The public's familiarity with where a warden resides, combined with the wardens' use of state-issued vehicles for personal events, such as attending their children's sports activities, further intensifies this scrutiny. Although engaging with the community at events or outings about resource-related questions might not inherently induce stress, the necessity to constantly shift focus from personal activities or tasks to job-related discussions can become burdensome. This constant state of alertness, alongside the pressures felt during the 11-20 years of service, hints at the potential "fishbowl effect," that game wardens might experience.

The second research question of this study examined if organizational and occupational stress levels were influenced by experience. As noted, the experience was determined to be

statistically significant as compared to the PSQ-Op and PSQ-Org. Interestingly, the experience group 11-20 years in the PSQ-Op and PSQ-Org notably increased the difference in perceived stress levels. The literature on experience concerning stress in law enforcement is limited.

Recent research indicates that officers with 0-14 years of experience exhibit greater levels of burnout compared to their veteran counterparts. Conversely, more experienced officers reported higher levels of perceived stress but displayed lower resilience (Gutshell et al., 2017). Furthermore, burnout has been associated with decreased memory performance. It has been observed that prolonged exposure to stressful situations exacerbates the negative impact on burnout levels. Notably, when burnout levels were identified as mild to moderate, a corresponding decline in performance was documented. Ledford et al. (2021) also found that game wardens who spent longer tenures in the field experienced higher stress levels. Gutshall et al. (2017) suggests that this phenomenon may be attributed to the development of coping strategies by those with longer tenures in the field. These findings suggest that prolonged exposure to job-related stressors leads seasoned officers to adapt by developing and utilizing a range of coping strategies. Interestingly, research conducted by Balakrishnamurthy and Shankar (2009) also found that officers with experience between 11 and 20 years had markedly higher amounts of stress. The results of this study align with the limited research conducted on traditional law enforcement and game wardens.

Oliver et al. (2017) suggests that a contributing factor to heightened stress levels may be the lack of sufficient resources allocated for comprehensive training in stress recognition and reduction strategies. Training aimed at stress reduction, both before and after encounters with traumatic events, has the potential to prevent the development of Post-Traumatic Stress Disorder (PTSD), reduce job burnout, and address significant health concerns, thereby also mitigating

negative public perceptions (Gutshall, 2017). Agencies should consider implementing stress reduction strategy training to enhance the preparedness of wardens in the field. This initiative should begin early in a warden's career, starting with their time at the Basic Law Enforcement Police Academy (BLETP), where cadets first learn about crisis intervention strategies. It is crucial that this training is not a one-time event but continues throughout a warden's career. This ensures ongoing awareness of the resources at their disposal, including the use of crisis intervention teams following traumatic incidents, and resources they are afforded the necessary time to utilize these resources effectively.

The results of this study, as they pertain to experience, suggest an increase in stress after the 11-year mark of service and that it drops off after the 20-year mark. This indicates that the warden may have developed greater resilience in handling stress, or it's possible that changes in life circumstances, such as children aging and becoming independent, along with achieving financial stability, could be influencing factors in the reduction of stress. It is important to remember that most law enforcement agencies have an early retirement age; in Maine, after twenty-five years, a state law enforcement officer can retire. The number of wardens that retire is unknown to this researcher, but there has been a notable uptick in retirements from the Maine Warden Service, attributed to a significant recruitment wave in the late 1990s. Unlike federal law enforcement, there is no mandated retirement age for wardens, yet it is uncommon to find wardens serving beyond 35 years, though there are exceptions. One of the primary reasons for retirement among wardens is the demanding nature of the job. Duties often include pursuing illegal hunters at night, participating in extensive search and rescue operations, and navigating physically taxing situations. Although promotional opportunities exist that offer more office-based roles, such positions are limited and often require relocation or an increase in supervisory

duties, which many wardens are reluctant to accept. The increased stress level for both organizational and operational might be due to added outside stress that might be experienced, including marital, financial, and personal. The younger, experienced wardens might also be more excited about their careers and future opportunities, whereas, after 11 years, the warden is almost halfway done with their career. The honeymoon phase of the job is long gone, and the reality of balancing the second half of their career with the stress is more daunting.

Limitations

As this study has added to the limited literature on game wardens, there were limitations within the study. Those included a lack of a diverse population of game wardens, the PSQ-Op and PSQ-Org McCreary and Thompson instrument that was used, and the potential impact of the Lewiston Mass Shooting that occurred just over two months prior to the survey's distribution, which may have influenced some of the survey responses received.

The lack of a diverse population was considered when formulating the demographic questions. There was no question about race or gender due to the very limited or nonexistent demographic. This research wanted to avoid exposing the females who did complete the survey. According to the 2019 Bureau of Labor of Statistics, 22% of protective services were comprised of women, and nearly 37% were minorities (Black, Asian, Hispanic) ("Examining Employment and Diversity in the Protective Service Occupations," 2022). Eight of the approximate 107 Maine Game Wardens are females, an increase from the first female Maine Game Warden in 1978. Currently, there are no minorities as defined by the Bureau of Labor of Statistics with the Maine Warden Service. It should be noted that Maine is one of the least diverse states in the country, with less than 8% of its population being minorities (United States Census Bureau

QuickFacts, 2022). Most of the Maine Game Wardens are white males, and most of those who completed the survey were white males. Given the predominant demographic of white males in Maine Game Wardens, altering the demographic composition of the survey respondents was not an option. The underrepresentation of female game wardens, coupled with their potential reluctance to participate in the survey due to their limited numbers, could further complicate the diversity of responses. Additionally, having asked respondents to specify their gender could have compromised their anonymity, especially considering the small proportion of female game wardens, thereby possibly affecting the survey's integrity. Additional research is needed on the differences between female and male game wardens and how stress affects them and minorities. Future qualitative research should be considered to determine the phenomenological effect on women choosing to be in a male-dominated field.

Another study limitation was that of the survey instruments, PSQ-Org and PSQ-Op. Both these instruments were deemed valid, reliable, and available for research purposes. However, the questions were designed for traditional law enforcement officers in the field. Other instruments that have been used throughout research to analyze the impact of stress on law enforcement were considered, such as the Perceived Stress Scale (PSS). While the Perceived Stress Scale (PSS) is recognized as a valid and reliable instrument for measuring stress, it was not entirely suitable for this study's specific objectives. This is because the PSS focuses on the general perception of stress rather than distinguishing between organizational or operational stress.

Consequently, utilizing the PSS would have made it challenging to address the research questions concerning which type of stress is more significant for game wardens and whether tenure affects stress levels. The broad nature of the PSS questions would have posed difficulties

in drawing relevant conclusions for this investigation. To overcome this limitation, a survey should be designed specifically for game wardens and tested to ensure validity and reliability.

The last limitation of this study was that it was not controllable and unpredictable. The October 25th, 2023, mass shooting in Lewiston, Maine, resulted in the death of 18 individuals and 13 others injured (*Governor Mills Addresses Administration's Response to Lewiston Tragedy, Outlines Actions in Days to Come | Office of Governor Janet T. Mills*, 2023).

Due to the active shooter situation in Lewiston, first responders from all different agencies, including the Maine Warden Service, responded to assist in the search of the suspect and collecting and processing evidence. Even though there was no identifying question on the demographic questionnaire about whether the respondent responded to the Lewiston shooting, it is known that multiple wardens had responded. The wardens who responded may have had increased stress from the event just two months prior, which may have been reflected in the survey. In the future, when an unpredictable historical event like this occurs just prior to distributing surveys, consideration should be given to whether to include a question on the demographic survey if the warden responded to the event. However, this may result in anonymity issues.

Recommendations for Future Research

There is a tremendous gap in the literature on stress in game wardens, as outlined in this research. While the study here focused on organizational and operational stress, recommendations for future research are outlined in Table 10. As noted in the literature review the 2000 Census found that game wardens had a much higher rate of divorce than traditional law enforcement (McCoy & Aamodt, 2009). However, this study reported only two divorces among

participants. Although examining the divorce rate among game wardens was not a focus of this study, it is a significant area for future research. Future studies should aim to assess the current divorce rate among game wardens and explore the underlying factors contributing to it. Another recommendation for future research is to understand better why there are so few female game wardens. Notably, there is a considerable research gap concerning women in this profession, even though the research community has urged for a deeper understanding of female conservation officers' roles and the potential obstacles they may encounter (Archbold & Schulz, 2012; Forsyth & Forsyth, 2009). According to the 2019 Bureau of Labor Statistics, women constitute 22% of the workforce in protective services, and the representation of female game wardens remains notably lower. This variance underscores the need for a closer examination of gender diversity within wildlife enforcement agencies. A better understanding of the factors that influence female game wardens' recruitment, retention, and experiences is crucial for promoting gender diversity and equity in the field. Further research could provide valuable insights into the barriers and opportunities for women in these roles. Again, this study did not ask about gender as it would risk anonymity. However, there are less than half the number of women Maine Game Wardens as traditional female officers. Gaining a better understanding could help with diversifying and recruitment of females in the field of conservation law enforcement.

In this study, the concept of stress was operationalized using the PSQ-Op (Police Stress Questionnaire-Operational) and the PSQ-Org (Police Stress Questionnaire-Organizational), which specifically aimed to measure the operational aspects of stress experienced by game wardens. A key finding, shared with the results of Ledford et al. (2021), highlighted that the predominant source of stress for game wardens stemmed from the sense of being constantly on duty. This operationalization was effectively achieved by including items in the PSQ-Op that

directly relate to the unique aspects of a game warden's job, such as the requirement to be on call, the unpredictability of work hours, and the inability to disengage from work responsibilities fully. This approach provided a focused assessment of the operational stressors specific to the role of game wardens, allowing for a better understanding of how feeling like always being on the job contributes significantly to their stress levels. Future research should explore the underlying factors contributing to the stress experienced by game wardens, exploring whether their work schedules and policies play a significant role in this phenomenon.

Researchers should explore effective critical incident stress management programs tailored specifically for game wardens. Everly et al. (2006) demonstrated the efficacy of crisis intervention programs in mitigating post-traumatic and psychiatric symptoms arising from the work environment. Future investigations should focus on identifying intervention programs suited to addressing trauma or critical stress experienced by game wardens, including strategies for managing long-term stress-related events.

Future research should consider analyzing whether age has an impact on stress. This study focused on years of service, which was found to be statistically significant; however, further research should be conducted to determine if age has an influence on stress.

Table 10

Numbered List of Recommendations for Future Research

Issue	Recommendation for Future Research
1. High rates of divorce among game wardens	Survey game wardens on marital status/divorce rates.

2. Significantly less number of women as game wardens than traditional law enforcement	Quantitative study to better understand why so few women become game wardens
3. High stress related to the feeling of being on the job all the time.	Test idea that job schedule correlates with stress
4. Determine effective programs for stress-related injuries.	Test critical incident stress management (CISM) programs to determine those most effective.
5. Determine if age affects stress levels	Test to see if their age impacts stress levels

Conclusion

This study explores the impact of stress on game wardens, addressing a gap in the existing literature. Utilizing the Police Stress Questionnaire's (PSQ-Op and PSQ-Org), this research assessed both operational and organizational stress levels among Maine Game Wardens. The aim was to discern the differences between organizational and occupational stress and to examine how a game warden's years of service relate to their experienced stress levels.

Focusing on current full-time Maine Game Wardens, the study had a 100% response rate, with sixty wardens participating in an in-person, paper survey. Through statistical analyses, including One-Sample t-tests and One-Way ANOVA, it was found that organizational stress is more significant than operational stress in affecting game wardens, with those in the 11-20 year service bracket being particularly impacted in both organizational and operational stress.

In conclusion, this research adds to the limited body of literature on stress among game wardens by identifying crucial stress factors. Understanding the specific stressors game wardens

face is important for developing targeted support and resources for effective stress management for healthier agencies and employees.

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APPENDIX A

Police Officer Stress Participation Survey

This survey is completely anonymous.

*Please circle your answers and **DO NOT** write your name*

1. I am a sworn Maine Game Warden. Yes No

2. How many years of experience do you have as a Game Warden?

0-10 years 11-20 years 21-30 years Over 30 years

3. Marital Status: Currently Married Divorced/single Single Widow

4. Education: less than HS High-School (GED) Some College Associates Degree
Bachelors Degree Masters Degree Doctoral Degree

5. Age: 18-25 26-33 34-41 42-49 50-57 over 58

APPENDIX B

Organizational Police Stress Questionnaire

Below is a list of items that describe different aspects of being a police officer. After each item, please circle how much stress it has caused you over the past 6 months, using a 7-point scale (see below) that ranges from "No Stress At All" to "A Lot Of Stress":

No Stress At All			Moderate Stress			A Lot Of Stress
1	2	3	4	5	6	7

1. Dealing with co-workers	1	2	3	4	5	6	7
2. The feeling that different rules apply to different people (e.g. favouritism)	1	2	3	4	5	6	7
3. Feeling like you always have to prove yourself to the organization	1	2	3	4	5	6	7
4. Excessive administrative duties	1	2	3	4	5	6	7
5. Constant changes in policy / legislation	1	2	3	4	5	6	7
6. Staff shortages	1	2	3	4	5	6	7
7. Bureaucratic red tape	1	2	3	4	5	6	7
8. Too much computer work	1	2	3	4	5	6	7
9. Lack of training on new equipment	1	2	3	4	5	6	7
10. Perceived pressure to volunteer free time	1	2	3	4	5	6	7
11. Dealing with supervisors	1	2	3	4	5	6	7
12. Inconsistent leadership style	1	2	3	4	5	6	7
13. Lack of resources	1	2	3	4	5	6	7
14. Unequal sharing of work responsibilities	1	2	3	4	5	6	7
15. If you are sick or injured your co-workers seem to look down on you	1	2	3	4	5	6	7
16. Leaders over-emphasise the negatives (e.g. supervisor evaluations, public complaints)	1	2	3	4	5	6	7
17. Internal investigations	1	2	3	4	5	6	7
18. Dealing the court system	1	2	3	4	5	6	7
19. The need to be accountable for doing your job	1	2	3	4	5	6	7
20. Inadequate equipment	1	2	3	4	5	6	7

APPENDIX C

Operational Police Stress Questionnaire

Below is a list of items that describe different aspects of being a police officer. After each item, please circle how much stress it has caused you over the past 6 months, using a 7-point scale (see below) that ranges from "No Stress At All" to "A Lot Of Stress":

No Stress At All			Moderate Stress			A Lot Of Stress
1	2	3	4	5	6	7

1. Shift work	1	2	3	4	5	6	7
2. Working alone at night	1	2	3	4	5	6	7
3. Over-time demands	1	2	3	4	5	6	7
4. Risk of being injured on the job	1	2	3	4	5	6	7
5. Work related activities on days off (e.g. court, community events)	1	2	3	4	5	6	7
6. Traumatic events (e.g. MVA, domestics, death, injury)	1	2	3	4	5	6	7
7. Managing your social life outside of work	1	2	3	4	5	6	7
8. Not enough time available to spend with friends and family	1	2	3	4	5	6	7
9. Paperwork	1	2	3	4	5	6	7
10. Eating healthy at work	1	2	3	4	5	6	7
11. Finding time to stay in good physical condition	1	2	3	4	5	6	7
12. Fatigue (e.g. shift work, over-time)	1	2	3	4	5	6	7
13. Occupation-related health issues (e.g. back pain)	1	2	3	4	5	6	7
14. Lack of understanding from family and friends about your work	1	2	3	4	5	6	7
15. Making friends outside the job	1	2	3	4	5	6	7
16. Upholding a "higher image" in public	1	2	3	4	5	6	7
17. Negative comments from the public	1	2	3	4	5	6	7
18. Limitations to your social life (e.g. who your friends are, where you socialize)	1	2	3	4	5	6	7
19. Feeling like you are always on the job	1	2	3	4	5	6	7
20. Friends / family feel the effects of the stigma associated with your job	1	2	3	4	5	6	7

The Operational Police Stress Questionnaire is provided free for non-commercial, educational, and research purposes.

APPENDIX D

Information Sheet

Title of the Project: Occupational and Organizational Stress in Maine Game Wardens

Principal Investigator: Lori Perez, Ph.D. Candidate, Helms School of Government, Liberty University

Invitation to be Part of a Research Study

You are invited to participate in a research study. To participate, you must be a current full-time Maine Game Warden. Taking part in this research project is voluntary.

Please take time to read this entire form and ask questions before deciding whether to take part in this research.

What is the study about and why is it being done?

The purpose of the study is to better understand if game wardens experience more operational stress than organizational stress and if experience has an impact on organizational or occupational stress.

What will happen if you take part in this study?

If you agree to be in this study, I will ask you to do the following things:

1. Fill out an anonymous Police Stress Questionnaire –Organizational (PSQ-ORG), Police Stress – Occupation (PSQ-Op) and a demographic survey. There is no personal identifying information required.

How could you or others benefit from this study?

Participants should not expect to receive a direct benefit from taking part in this study.

Benefits to society include increased public knowledge as well as agency and departmental knowledge.

What risks might you experience from being in this study?

The expected risks from participating in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

How will personal information be protected?

The records of this study will be kept private. Research records will be stored securely, and only the researcher will have access to the records.

Participant responses will be anonymous.

Data will be stored in a locked file cabinet. After three years, all hardcopy data will be shredded.

Is the study participation voluntary?

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free to not answer any question or withdraw at any time prior to submitting the surveys without affecting those relationships. Prior to submitting the survey, please ensure you have not included any personal identifying information by mistake.

What should you do if you decide to withdraw from the study?

If you choose to withdraw from the study, please inform the researcher that you wish to discontinue your participation, and do not submit your study materials. Your responses will not be recorded or included in the study.

Whom do you contact if you have questions or concerns about the study?

The researcher conducting this study is Lori Perez, a Ph.D. student. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at [redacted] You may also contact the researcher's faculty sponsor, Douglas Orr, at [redacted]

Whom do you contact if you have questions about your rights as a research participant?

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the IRB. Our physical address is Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA, 24515; our phone number is 434-592-5530, and our email address is irb@liberty.edu.

Disclaimer: The Institutional Review Board (IRB) is tasked with ensuring that human subjects research will be conducted in an ethical manner as defined and required by federal regulations. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.

Information

Before agreeing to be part of the research, please be sure that you understand what the study is about. You will be given a copy of this document for your records. If you have any questions about the study later, you can contact the researcher using the information provided above.

APPENDIX E

Letter of Request (LOR) to Host Agency

October 5, 2023
Dan Scott
Colonel
Maine Warden Service
41 State House Station
Augusta, ME 04333

Dear Colonel Scott,

As a graduate student in the Helms School of Government at Liberty University, I am conducting research as part of the requirements for a Doctorate in Philosophy (PhD). My research is focusing on organizational and occupational stress in game wardens, with the purpose of my research is to identify which is more stressful, organizational compared to occupational. I will also analyze years of service to help better understand if there is more of an impact on the type of stress (organizational vs. occupational). I am writing to request your permission to conduct my research with wardens from your agency and contact them to invite them to participate in my research study.

Participants will be asked to complete the attached survey. Participants will be presented with Informational Letter prior to participating. Taking part in this study is completely anonymous, voluntary, and participants are welcome to discontinue participation at any time.

Thank you for considering my request. If you choose to grant permission, please provide a signed statement on official letterhead indicating your approval or respond by email to [redacted]

Sincerely,

Lori Perez

Ph.D. Student

APPENDIX F

Introductory Script to Invite Participation

Thank you for your attention. My name is Lori Perez. I am a Ph.D. student at Liberty University conducting research on stress in game wardens. As a previous federal wildlife officer with the United States Fish and Wildlife Service, and married to an federal wildlife officer who has been in the field for over twenty years I know that this line of work can be stressful.

I have been teaching in higher education for over 10 years, with most my time at Unity College, however the past three years at Husson University. I have been the director for both Conservation Law Enforcement programs at both institutions with goal to provide stewards of the land.

I became interested in stress in game wardens as an officer in the field, teaching critical incident stress management classes and in my research I noticed there was a significant lack of research on stress in game wardens. Currently there is approximately 5 studies that examine the causation of stress in game wardens and the effects it has. Comparably traditional law enforcement has had nearly 200 studies conducted.

The purpose of this anonymous study is to better understanding operational and organizational stress within game wardens. I am here today to ask you to please consider taking my short survey. The survey instrument that I am utilizing is the Police Stress Questionnaire both Organizational and Operational. This survey has been proven to be reliable and valid. This survey shouldn't take more than 10 minutes to complete.

Anonymity of warden identification is my top priority for this study. You will notice that the survey does not ask for any personal identifying information or names. Your survey has an untraceable case number.

Please let me know if you have any questions, and thank you for taking this anonymous survey.