Directors Update
by Gregory Smith, M.A.

Friends and Colleagues:
The Institute for Law Enforcement Administration is committed to serving the law enforcement community in the utmost professional manner and with impeccable service. We understand that we are now facing extraordinary times due to the national emergency caused by the Coronavirus COVID-19. Events over the last month have led us to the decision to postpone or cancel all remaining programming for our fiscal year which ends on June 30, 2020.

Our team is hard at work rescheduling various programs for this fall, and we will be in contact with all enrollees and instructors soon to ascertain their future availability. Any participant that agencies elect to transfer funds to other participants will be accommodated on a case-by-case basis. For more information on these matters please contact our Chief of Operations, Ms. Tracy Harris at tharris@cailaw.org.

I would also like to take this opportunity on behalf of the entire staff of ILEA and The Center for American and International Law to thank all our members and member agencies for answering the call of duty once more.

All First Responders take an oath to protect and serve, but you also have in your heart the ability to cherish. You cherish life. No matter the situation, the cause or the circumstances... your goal is always the preservation of life. This is what makes first responders special. You cherish the preservation of life more that you value your own. Duty, Oath and Honor. Those are not empty words to you. They mean something to you, and you show the depth of that meaning every day that you step out your door and go to work.

We also want to celebrate the unexpected heroes who have also stepped up. Thank you to the service workers at restaurants who come in every day to feed us and do so with a kind smile and a positive outlook. I want to send a shout out to the truck drivers who are out there hitting the roads and working doubles so that our families might have sustenance. We also acknowledge the bravery of the store clerks, cashiers, stockers and janitors who continue to put their lives at risk for us.

Finally, of course, we recognize the medical professionals and medical support personnel who stand on the front line. You are the first line of defense in arresting this global pandemic. Thank you for your service.

This thing will not win. It will not win because we are who we are. We are Americans...and Americans fight. We falter. We may slip but we do not give up.

We will figure this thing out. We will survive. We will prosper. Simply, because that is what we do!
**Let’s be Specific: Unique Health Considerations of the Law Enforcement Officer**
by Julie Babyar, R.N.

**Abstract**

The law enforcement profession carries unique health considerations. Data derived from law enforcement occupational health studies have potential to increase quality of life, decrease economic cost, prevent illness and create better understanding on the relationship between health of law enforcement and the community. Recommendations to improve law enforcement health include stronger quality in research, translation to clinical care and improved coordination with law enforcement administration. These recommendations have potential to shape a healthier future for law enforcement officers, thereby shaping a healthier future for the public they serve.

*Keywords*: biomarker stress data, police officer health, Post Traumatic Stress Disorder

**Introduction**

It is well known that the law enforcement profession is accompanied by unique health impacts. Occupational hazards occur both within departments as well as when serving the public. Adverse mental and physical health conditions such as anxiety, depression, post-traumatic stress disorder, cardiovascular disease and stomach issues have all been identified as risks associated with law enforcement careers (Arnetz et al. 2013). A recent study of mortality found that U.S. police officers die at a higher rate from violent causes and this is especially true of motor vehicle accidents and self harm (Eastman et al. 2017). Alcohol dependence in law enforcement has been a noted concern, though literature is mixed on specific prevalence, incidence and rates greater than the general public (Ballenger et al. 2011). Law enforcement is considered to be one of the most stressful occupations (Dåderman and De Colli 2014), though the extent, causes and consequences of this stress are not fully understood.

Research into law enforcement and health is centered on both mental and physical aspects. Though much literature focuses on specific areas of interest (PTSD, depression, cardiovascular disease) other research has looked comprehensively across the spectrum of illness and wellness. Studies on law enforcement may focus on external stressors from the public, internal stressors from individual coping mechanisms and/or work environment stressors.

Research on law enforcement occupational health is abundant. Law enforcement shares characteristics of other professions, effectively targeting this population for significant attention from research and academia. In fact, there are over 600 review articles on stress in law enforcement officers and this literature is extensive (Dåderman and De Colli 2014). Additionally, law enforcement officers are public employees, they are in the helping profession and they have similar hierarchical structure across the nation. This makes their participation in research efficient and reliable, and their participation offers comprehensive data. It provides crucial information applicable to a variety of occupations involving public service, shift work, critical incident response and hierarchical structure.

It is logical and important to seek best health and wellness strategies for law enforcement officers. Not only is optimal health and quality life a mission in medicine, cost containment is a mission in public administration. As public employees, law enforcement officers can reduce societal cost by optimizing personal health. Employing a law enforcement officer will cost about $93,000 per year per officer. There are more than 836,000 officers in the United States employed by 17,000 criminal justice agencies. Considering salaries, benefits, workers compensation and pension costs, it is vital to ensure the best possible health for the law enforcement workforce (Ramey et al. 2012).

**Current issues in law enforcement health**

U.S. law enforcement research centers on physical and mental health, with several government projects and data sets that have initiated stronger sampling. Focus on objective data has led to several diagnostics and tools to accompany subjective surveys. Prevention healthcare is accompanied by resilience and mental wellness research. Healthcare to address law enforcement health disparities has included small scale interventions. Alongside the movement toward law enforcement wellness is a movement to capture all those who enforce the law as part of this healthcare focus. Importantly, the concepts of community health impacts alongside law enforcement wellness has recently begun.

The definition of a law enforcement officer differs depending on country and perception. Prison officials, federal agents and parole officers carry badges and have varying degrees of authority, though all enforce and uphold laws as a job requirement. While much research segregates police officers and

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*In time of crisis people want to know that you care, more than they care what you know.*

*Will Rogers*
Returning to Fundamentals: In self-defense training for America’s police officers.
by Glenn R. Daugherty, Ed.D. and Thomas E. Meloni, Ph.D.

Abstract

This article is posited by the authors to serve as a partial answer to the issues relating to police training and use of force. The authors’ opinions are based on decades of shared law enforcement experience in dealing with people under a wide variety of situations including, the difficult violent encounters experienced by the law enforcement profession. The authors posit that there exists a critical need for American police officers to be highly skilled in hand-to-hand self-defense techniques, in order to enhance personal confidence, and rely less on weaponry in the protection and service of the people.

Introduction

"Fundamentals, it’s always fundamentals" (Westfall, 1996); most all problems in human interactions and in organizations can be traced to a violation of fundamentals. The increasing levels of public discord revolving around police officer use of force incidents require examination for any violation of fundamentals.

Police officers are allowed to use force within the confines of state and federal law, and United States Supreme Court decisions. Put concisely, officers may use physical force (anything greater than a firm grip) only for the protection of human life, to prevent bodily harm, or to affect an arrest that is actively being defeated. The force that an officer employs must meet the standard of a two-part test. First, the force must be necessary to protect human life, prevent bodily harm, or affect an arrest that is actively being defeated. Secondly, the force applied must be reasonable in application and amount (Curtis, 2014). The United State Supreme Court case decisions in Tennessee vs Garner (1985) and Graham vs Connor (1989) remain the controlling decisions on use of force by police in the United States of America.

Basic Training

When a police officer candidate enters the law enforcement profession, there is a lot on their plate for the first two years. The basic training academy lasts from 10 - 26 or more weeks, depending on the requirements of the particular department. The length and intensity of basic training leaves little time for anything else (Brewer, 2012; ISP Merit Board, 2019). Following the academy, most officers experience on the job training with a series of field training officers, for a period of several months or a full year, where the recruit works with veteran training officers in the street. Once the officer has completed the field training and gets off their probationary status, the officer is usually assigned to a patrol shift. These shifts can be eight, 10, or 12-hour shifts, depending on the departmental needs. In addition to the shift work, many officers experience the necessity of working overtime to help pay bills and meet the staffing needs of the particular department. Police officers experience odd hours, to include working holidays, and special assignments. Officers must also complete mandatory in-service training sessions for the various skills that are necessary for police work, such as Taser.

ILEA Director Gregory Smith, left, with Mr. Brandt Jean, center, and Jean family members. Mr. Jean is the 2019 Ethical Courage Award recipient.

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Surveying Generation Z’s Paradigms on the Use of Deadly Force by Police
by Chloe Layne, M.A.; Thomas Meloni, Ph.D.; Chris Bitner, D.P.A.; Niyazi Ekiei, Ph.D.; Bonny Mhlanga, Ph.D.

Abstract

This research explores paradigm formation of students in a law enforcement program at a large Midwestern university regarding police use of deadly force. The authors begin with a review of language, early criminal codes and principles, major United States Supreme Court rulings, and media influence to establish the foundational environment on what has influenced contemporary conceptions on use of deadly force by police. From there, we move to discover paradigms held by our sample population and add to the body of literature on police use of deadly force. To accomplish this, current law enforcement students at a Midwestern university were invited to participate in a non-randomized cross-sectional survey during their Fall 2019 semester. The survey was distributed to lower and upper division students enrolled in undergraduate courses and was voluntary. The results of this research indicate students experience a paradigm shift regarding police use of deadly force as they travel through their academic and learning experiences.

Introduction

Grounded in preceding literature, this research starts from the assertion that police officer use of deadly force during a legitimate law enforcement engagement is generally understood as a major event holding consequences for everyone directly or tangentially associated with the episode. It potentially affects the recipient of force, officer, department, co-workers, family members, and community. When to use deadly force is apt to be a substantial determination to confront for any police officer.

We understand the topic of use of force isn’t new; it has been considered and deliberated for ages. Examinations on use of force; whether by police or not, has been measured and contemplated for long periods of time. From written rules contained within the Code of Hammurabi to United States Supreme Court cases, society continues to deliberate and refine what is an acceptable use of force by police. These historical deliberations and refinements develop our awareness and expectations for police use of force; which is persistently evolving and deepening.

Accordingly, this current research supplements knowledge regarding the ever emerging deliberation and discernment surrounding the use of deadly force by police officers; specifically to ascertain what factors impact the paradigms, or worldview, of current Generation Z students who are studying law enforcement at a large university in the Midwest. In brief, we find the population sampled expresses a paradigm shift through the course of academic studies; with students adopting a more positive paradigm for interpreting police officer use of deadly force in the United States. We argue knowing this is vitally important; it illustrates the degree, weight, and scale education has on paradigm development at the university level in the least.

Literature Review

Key Historical References Regarding Use of Force by Police

Paradigms are, as defined by Stephen Covey, Ph.D., “the way that people perceive, understand, or interpret the world” (1989, p.23). Paradigms are also models, theories, assumptions, explanations, or frames of reference (Covey, 1989). Paradigms are important as Covey points out, that we perceive the world around us through the filter of our experiences. An example of a paradigm is how an individual perceives a car cutting them off on the highway. It is possible that the driver of the car is very rude with little concern for other people. Or, the driver of the car is rushing to the hospital because his wife is in labor. The paradigm is in the view of the observer.

Among the first formal set of criminal codes was the one established by King Hammurabi in 1750 B.C. King Hammurabi was the king of Babylon. Hammurabi’s official code established rules and punishments for certain breakdowns in society (Blecker, 2018). The law codes prescribed specific punishments for each of the listed crimes. This first record of Hammurabi’s code of criminal conduct began the process of developing what are known today as statutes.

Sir Robert Peel’s, Nine Principles of Policing, authored in 1829, formed the foundation of the community-based policing design adopted in the United States during the middle of the 18th Century. Peel served as the Prime Minister of the United Kingdom and founded the Metropolitan Police Force. Peel is credited with creating the first modern, organized...
police force. Peel’s Nine Principles served as a mission statement for why and how the force would serve the people. Peel developed nine principles, establishing the foundation that an officers’ responsibilities included both the prevention of crime and the maintenance of order in the society.

Table 1. Peel’s 9 Principles of Policing (1892)

<table>
<thead>
<tr>
<th>Principle</th>
<th>Description</th>
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<tbody>
<tr>
<td>Principle 1</td>
<td>The mission of policing is preventing crime and disorder</td>
</tr>
<tr>
<td>Principle 2</td>
<td>Public approval is needed for police to perform their duties</td>
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<tr>
<td>Principle 3</td>
<td>Police must maintain the respect of the public and ensure that the public is cooperative in their observance of the law</td>
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<tr>
<td>Principle 4</td>
<td>Police use of physical force diminishes the degree of cooperation of the public</td>
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<tr>
<td>Principle 5</td>
<td>Police maintain public approval through demonstrating impartial service to the law</td>
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<tr>
<td>Principle 6</td>
<td>Police only use physical force when necessary to maintain observance of the law or to restore order, and only when persuasion and warning were insufficient</td>
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<tr>
<td>Principle 7</td>
<td>Police are members of the public who are paid to attend to the duties that are necessary in the interest of community welfare</td>
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<tr>
<td>Principle 8</td>
<td>Police should maintain focus on their functions and not assume the role of the judiciary</td>
</tr>
<tr>
<td>Principle 9</td>
<td>Police efficiency is shown through the absence of crime and disorder</td>
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Peel’s Nine Principles of Policing (1829) remain applicable today in the profession of law enforcement (Adegbile, 2017). The Principles elaborate the mission established by Peel, (1829) “To Protect and To Serve.” The protection and service of the people is the paradigm through which true professional policing becomes effective. Peel was firm in that all police action should be directed at protection and service of the people.

In 1985, the United States Supreme Court (USSC) declared that an officer may employ deadly force, only when “the officer has probable cause to believe that the suspect poses a significant threat of death or serious physical injury to the officer or others” (Tennessee v. Garner, 1985). The USSC Tennessee v. Garner decision continues to serve as the foundational standard regarding police use of force in America. Law enforcement officers are required to act within the standards set forth within these two USSC case decisions.

Garrison (2018) discussed police use of force with regard to the 4th Amendment and qualified immunity. Garrison determined that use of force is governed by the Fourth Amendment, which protects people against unreasonable searches and seizures. Garrison described the law as narrow and only attempting to determine the reasonability of the officer’s actions. Garrison also discussed qualified immunity, stating that officers will not be held liable unless the officer knew that the action taken violated a clear and established statutory or constitutional right (Garrison, 2018). More recently, in 2018, the Supreme Court decided that a reasonable officer is not required to predict future judicial decisions in instances where the Fourth Amendment criteria are not clear or obvious (Kisela v. Hughes, 2018).

certification, control and arrest tactics, and refreshers on first aid.

The officers must learn to juggle all of the departmental requirements along with managing their personal lives. Time management becomes a crucial element in the officer’s life-management skills. Officers must balance work demands with family, friends, and personal goals. It is not easy and takes focus to successfully manage all of the varied stressor facing police officers each day.

Physical and Mental Health

In addition, the new officer must maintain their physical and mental health by maintaining a rigorous exercise program. A police officer must be in outstanding physical shape in order to deal with the demands of police work. Officers must maintain and sharpen their decision-making and reaction skills by keeping a sound and clear mind.

It is inevitable that the officer will need to use force during their careers due to the violent actions of some people within society. Violent crime is a reality, police officers confront violent criminals in the protection and service of citizens. The better prepared officers are to protect themselves, the better they will be able to protect the public (Wittie, 2011). However, there is the rub. How much time is left in the officer’s day or week to train in fitness, use of force, and self-defense?

Martial Arts

Multiple authors (Laus & Ribicic, 2017; Lee, 2016; Remsberg, 2015; Kaminski & Martin, 2000) profess and encourage training in the martial arts for the self-defense development of police officers. However, to become a truly proficient martial artist requires many training hours per week and many dedicated years of training. Most police officers are simply not able to devote this amount of time to training. The requirement for proficiency in martial arts has led Franco (2019), to process some advice that will shock many martial artists and police officers. According to Franco (2019), no one martial art technique qualifies as the most optimal technique for American police officers.

To become proficient in a martial arts or a self-defense discipline takes years, on average, four to five years and of dedication and thousands of hours of training (Massiemi, 2011). Then, once one has achieved the expert (black belt) status, in order to remain proficient in the art, the belt holder must continue to practice daily (Enkamp, 2014). For example, if an officer is unable or unwilling to dedicate the necessary amount of time to seek mastery status in the martial arts, it is better to seek self-defense training geared toward the requirements of the use of force allowed legally, professionally, and morally for police officers.

In Macomb, Illinois, the home of Western Illinois University, Shihan Ed Kuras has adopted a police combat program called Taiho-Jutsu (Shotokan.us, 2019). The Taiho-Jutsu was developed in the 1940’s, by the Japanese Police Department and focuses on police tactics to best control offender related attacks on police officers (Shotokan, us, 2019). These techniques include wrist and arm control holds, locks, speed hand-cuffing, and basic self-defense techniques for control of resisting suspects by police officers.

Recommendations

In order to focus on fundamentals, basic police academy training should emphasize fundamental self-defense skill sets in order that officers are able to defend themselves from physical threats. Proficiency in hand to hand combat requires many hours of repetitive skill exercises in order to reach an effective level of muscle memory. The officer must be readied to observe, properly interpret a real physical threat, and react instantly, to protect themselves or another from a physical threat.

Full confidence in one’s skills and abilities in hand to hand self-defense will lesson reliance on various weapons, such as tasers, oleoresin capsicum, batons, and or firearms, reserving weapon application only for those threats wherein weapons are being employed by the assailant. For example, in the ancient sport of collegiate or Olympic wrestling, a...
wrestler is able to observe, through multiple bodily senses, the movements of his or her opponent. The wrestler counters the move of the opponent, while simultaneously launching another move to overcome the efforts of the opponent and take physical control of the opponent. The action takes place within a second of time. The more accomplished the wrestler, the more capable he or she is in defeating an opponent.

Officers should be receiving demanding physical training and be required to pass, hand-to-hand self-defense proficiency exercises, while in basic training. A six-month long police academy program should provide sufficient time within, for police officers to learn the skill sets taught from a combination of basic Judo, collegiate wrestling, and many martial arts, such as but not limited to, Tae Kwon Do, Karate, and Aikido. The self-defense training must take place daily for the full six-month training. It is recommended that the physical fitness and self-defense portion of each training day be no less than two hours in length. Deploying police officers into the community with a lack of realized expertise and confidence in hand-to-hand self-defense, may result in the officer overreacting to physical threats due to the physiological effects of the commonly known, fight or flight natural defense system.

The self-defense techniques must comply with the department policy on use of force, and the legal mandates within the jurisdiction. Training must be reality-based self-defense made for law enforcement (Franco, 2019). According to Sammy Franco, a law enforcement master instructor, this training needs to include defensive street techniques for knife defense techniques, gun disarming techniques, fighting multiple attackers, baseball bat and bludgeon defense skills, and hand to hand attacks (Franco, 2019). Training should be provided in basic training, by the training unit of the police department the officer works for if the department is professional enough to recognize the need for the training. Training may also be provided by martial arts schools that have programs specific for police training requirements.

The important element of police self-defense is that it must comply with department policy, be legal, and it must be simple enough so that the police officer can learn, remember, and apply it effectively. The police officer must practice the techniques thousands of times in academy thereby enabling muscle memory. In service training throughout the officer’s career should be dedicated to a regular review of the techniques. Officers should be encouraged and supported with allocation of time, department resources, and fitness incentive pay to make it possible for officers to continue in the pursuit of true expertise in physical self-defense. For example, many departments reimburse officers for continuing formal education efforts, and or achieving higher level college degrees. The same reimbursement practices should be equally if not supersede officers who practice and attain higher levels of martial art, judo, or collegiate wrestling training. The officers will be more confident in their own skills and abilities, at hand-to-hand self-defense.

Fundamentally, enhanced training efforts in self-defense techniques will result in enhanced self-confidence leading to improved effectiveness in the officer’s ability “to protect and to serve” (Peel, 1829) the people.

References


“At first sign of crisis, the ignorant don’t panic because they don’t know what’s going on, and then later they panic precisely because they don’t know what’s going on.

Jarod Kintz


Glenn R. Daugherty, Ed.D. and Thomas E. Meloni, Ph.D. are with the School of Law Enforcement and Justice Administration at Western Illinois University in Macomb, IL.

CALL FOR NOMINATIONS

GARY W. SYKES AWARD

ILEA is continually accepting nominations for the Gary W. Sykes Award for Professional Achievement in Law Enforcement and the Ethical Courage Award.

Criteria: Recipient must be a criminal justice professional for at least 10 years, has been instrumental in bringing about significant organizational change for the good of the profession; is significantly involved in community service and civic activities; and is a role model to law enforcement officers, support personnel, criminal justice professionals, and citizens.

ETHICAL COURAGE AWARD

Given each year since 1998, this award is intended to recognize an individual or an organization for especially meritorious leadership or courage related to law enforcement ethics and integrity.

This award is given during the Contemporary Issues and Ethics Conference.

Please forward all nominations and questions to gsmith@cailaw.org.

ILEA UPCOMING PROGRAMS

Employee Engagement (Apache Junction, AZ)
July 13, 2020

The Strategic PIO (Apache Junction, AZ)
July 20-23, 2020

Texas Sergeant Academy (Texas City)
August 17-28, 2020

Managing the Training Function
August 31-September 3, 2020

Ethics Train-the-Trainer (Plano, TX)
September 14-17, 2020

Texas Sergeant Academy (Georgetown, TX)
September 14-25, 2020

Arizona Sergeant Academy (Apache Junction)
September 21-October 2, 2020

School of Police Supervision (Plano, TX)
September 28-October 23, 2020

Police-Media Relations (Plano, TX)
October 28-30, 2020

Class photo of participants in the 130th School of Police Supervision held Feb 3-28, 2020 and hosted by the Southlake Police Department.
first responders from correctional officers, psychological stressors are similar. Additionally, first response and physical health often includes firefighters and paramedics alongside police officers, yet psychological research on effects of continuous introduction to serious interpersonal crime often segregates the police officer. Rarely, is this research extended to law enforcement in legal work, such as prosecutorial professions. Notably, professional changes of offices doesn’t remove the law enforcement experience nor allostatic load.

Utilizing the police workforce for occupational health data is common. In research on work stress theory, law enforcement officers are chosen as subjects because the strong link between work, stress, physical and mental health issues in law enforcement work is recognized (Lucas, Weidner, and Janisse 2012). In research on absenteeism in the workplace, law enforcement is identified as ideal research targets due to exposure of violence and weapon use, conditions that are identified as stressful (Magnavita and Garbarino 2013). Additionally, Post-traumatic stress disorder (PTSD) research among law enforcement officers is extensive, particularly due to the high likelihood that officers will be exposed to traumatic and critical incidents over time. It has been noted that because of the unacceptability to introduce trauma to human subjects experimentally, and biological data collection efforts involving PTSD do not provide full understanding without predisposition biological data, the law enforcement profession remains a great candidate for research (Apfel et al. 2011). Mental health and traumatic stress studies involving law enforcement officers can be performed prospectively and ethically, and thus PTSD research on law enforcement officers is common. Finally, like many other work stress theories and biomarker research involving occupational health, shift work study results that have used law enforcement officers have applicability to other professions. Police are identified as an understudied, high risk and opportune profession for research centered on cortisol levels and long-term shift work (Fekedulegn et al. 2012).

Perhaps one of the most comprehensive and well-known studies to date is that of the Buffalo Cardio-Metabolic Occupational Police Stress (BCOPS) study, a study focused on morbidity and mortality among law enforcement officers. The BCOPS study is a collaboration involving the National Institute for Occupational Safety and Health (NIOSH) and is considered an investigation of early health consequences of stress in law enforcement officers (National Institute of Occupational Safety and Health 2016). Besides NIOSH, the National Institutes of Health (NIH), academic medicine and a variety of local and regional grants fund research on law enforcement. The nature of law enforcement and its hierarchical infrastructure provide for a commonality across borders, with significant international research available. While major studies are well known, subsequent interventions and widespread standards implementation are not widespread.

On the topic of physical health in relation to stress, cardiovascular disease (CVD) and metabolic syndrome are the two areas of interest to research teams. One study found that the majority of stress a law enforcement officer endures is based upon organizational stress within the department, though it is often perceived that critical incidents place the most stress upon the officer (Ramey et al. 2012). Organizational and work stresses are repetitive and daily.

Stress, mental health and PTS affect law enforcement professionals and their quality of life. This carries over frequently into other avenues of their lives, chiefly into interactions at home. Additionally, research acknowledges the possibilities of these affecting interactions with the public, communities, and overall public health. Law enforcement officers who report significant mental health issues are found to have poorer sleep quality or shorter sleep duration. However, in one study neither issue was shown to affect metabolic syndrome prevalence or risk. In fact, law enforcement officers who slept more than 8 hours a day were found to have a four-fold increase in metabolic syndrome (Yoo and Franke 2013). While studies report correlations between short sleep duration and obesity, diabetes, hyperlipidemia and hypertension, all components of metabolic syndrome, this study did not find a link between short sleep duration and metabolic syndrome (Yoo and Franke 2013). The background of the law enforcement officer is notable. One study has reviewed prior military

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experience and found that police specific events and organizational issues are more stressful for officers without military experience, though these officers reported using coping strategies more often than officers with combat military experience. This same study found that psychological distress measures such as PTSD and depressive symptomology did not differ by military background (Hartley et al. 2013). Other studies acknowledge mixed results, with some finding no difference in field work stress among military and non-military backgrounds for law enforcement. The background of the officer in terms of childhood trauma has also been reviewed. In a prospective cohort study, law enforcement officers from urban departments were assessed during academy and after the first year on the job. While a direct correlation between childhood trauma and the development of PTSD symptoms was not found in this particular study, a trend for the relationship between childhood trauma and prolonged MHPG salivary stress marker alongside PTSD symptoms was found (Apfel et al. 2011).

Emotional dissonance and burnout as a result of suppression of anger and sadness among law enforcement officers is correlated. Attendance to, rather than avoidance of, negative feelings associated with police work may assist in healthy marriage behaviors (Roberts et al. 2013). One study reviewed found that law enforcement officers may avoid discussion of work-related stress to protect their significant other, potentially realizing unintended consequences of marital disconnect (Roberts et al. 2013). Literature supports behavioral evidence in which officers manage emotions in their personal and professional lives (Roberts et al. 2013). Because previous literature has found officers may withdraw socially after high workload and high-stress days, findings that support less hostility alongside high job stress are expected. While officers may feel more negatively regarding work stress, they attempt to contain it in front of their spouse. Consequences of emotional suppression as well as positive effects of emotional expression are not only important in terms of quality of life but also in terms of success on the job. Positive emotional expression potentially bonds officers, communities and even those affiliated with cases, aiding in solving criminal cases (van Gelderen et al. 2011).

Research tools vary. In fact, stress and post-traumatic stress symptom screenings differ greatly. Most studies used different assessment tools, potentially hindering comparison abilities. Additionally, quality of life research for law enforcement officers is assessed using many different assessment tools, and this research is often accompanied by significant limitations. Some data shows that psychological measures are associated with biological changes and results suggested connections between inflammatory responses, traumatic incidents, and work stress among law enforcement officers (Ramey et al. 2012).

Blood and saliva tests have been identified as sources of biomarker stress data. Dehydroepiandrosterone (DHEA), prolactin and cortisol were used as measures in a study that provided coping and resilience training to officers. While DHEA and cortisol differences were not seen among the intervention and control groups, prolactin was significantly lower in the officers that were provided coping and resiliency training prior to job related stress, which matched their lower reports of physical health ailments and also matched these officers better sleeping patterns [Arnetz et al. 2013]. The BCOPS study used saliva cortisol to understand post-traumatic stress (PTS) in law enforcement officers and found those with PTS symptomology did show differences in salivary waking cortisol levels, though the difference was not statistically significant. While 35% of police officers experienced PTS symptoms in the study, 8-9% of the general population experienced PTS symptoms (Austin-Ketch et al. 2012), demonstrating the importance of the findings.

Salivary 3-methoxy-4-hydroxy-phenylglycol (MHPG) was also used in a study of PTSD symptomology in new law enforcement officers, finding that prolonged elevations of salivary MHPG after experimental stressors predicted the later development of PTSD symptoms (Apfel et al. 2011). Cortisol levels assessed at awakening were higher in police academy recruits, who subsequently experienced acute stress disorder (ASD) symptoms and peritraumatic dissociation at greater levels during the first three years of police service. Thus, it has been found that cortisol awakening response is a prospective predictor of ASD and peritraumatic dissociation (Inslicht et al. 2011). Lifestyle and behavior changes associated with work stress have been suggested for further exploration, as negative and unhealthy behaviors can result from work stress. Finally, costs associated with CVD among law enforcement have been addressed. Law enforcement officers have a prevalence of CVD that is 1.7 times higher than the general population, and there is a significant healthcare
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Salivary 3-methoxy-4-hydroxy-phenylglycol (MHPG) was also used in a study of PTSD symptomology in new law enforcement officers, finding that prolonged elevations of salivary MHPG after experimental stressors predicted the later development of PTSD symptoms (Apfel et al. 2011). Cortisol levels assessed at awakening were higher in police academy recruits, who subsequently experienced acute stress disorder (ASD) symptoms and peritraumatic dissociation at greater levels during the first three years of police service. Thus, it has been found that cortisol awakening response is a prospective predictor of ASD and peritraumatic dissociation (Inslicht et al. 2011).

Lifestyle and behavior changes associated with work stress have been suggested for further exploration, as negative and unhealthy behaviors can result from work stress. Finally, costs associated with CVD among law enforcement have been addressed. Law enforcement officers have a prevalence of CVD that is 1.7 times higher than the general population, and there is a significant healthcare
cost associated alongside CVD (Ramey et al. 2012).

Correctional officer and parole officer distinction in research is also noted. Stress intrinsic to the job, role identification at work, supervisory relationships and work rewards are all identified as organizational contributors to burnout of correctional officers (Finney et al. 2013). Stress among parole officers has been addressed in an editorial review that called for better training, supervision, and management among the profession (Palermo 2013). There is a paucity of data on correctional officer health, as researcher segregation and focus of this population is not strong. Too, some countries and communities might find correctional officers and police field officers in shared tasks, removing the prioritization of classification.

The nature of critical incidents involving law enforcement is of significance, both in predictive trajectories of mental health illness, as well as for future preventative intervention studies. For instance, one study reviewed assessed PTSD, depression and overall mental health symptoms of law enforcement officers who used deadly force. While only a small percentage of law enforcement officers reported using deadly force, the event is associated with mental health problems and PTSD in the subsequent years for the law enforcement officer (Komarovskaya et al. 2011). Intervention research on this small population of officers could potentially and dramatically increase quality of life.

There is no single evidence-based workplace wellness program to address the disparities related to law enforcement, however interventions are often undertaken as part of wellness programs. A twelve week program initiated by the CDC and NIOSH, Safety and Health Improvement: Enhancing Law Enforcement Departments (SHIELD) has recently been evaluated. At 6 months post program, reductions in tobacco and alcohol use, improved sleep, improved intake of fruits and vegetables and reductions in stress were reported by participants. At 24 months, reductions in tobacco and alcohol use and increased fruit and vegetable use were noted (Kuehl et al. 2014).

Recent literature suggests that participant satisfaction is strong, yet there is mixed evidence for other measures of effectiveness. Wellness programs tend to see successes in physical activity or nutritional habits. It has been noted by the U.S. Officer Safety and Wellness (OSW) Group that most wellness programs for law enforcement are not scientifically reviewed, and thus evaluations and scaled implementations are not necessarily evidence-based (Kuhns, Maguire, and Leach 2015). Importantly, a recent meta-analysis of 12 published articles on police wellness interventions analyzed 221 effects and found that the interventions were not effective (Patterson, Chung, and Swan 2014).

In recent literature, concepts such as debriefing and incident management have increasingly been overshadowed as social scientists and health professionals have turned focus toward preventing stress and PTSD (de Terte and Stephens 2014). Training for job-related stress demonstrated positive physical outcomes described above as well as displayed long-term positive job performance. Training consisting of tactical and psychological rehearsal improved psychological resilience of active law enforcement officers, supplementing standard training (Arnetz et al. 2013). Optimism and a focus on positivity was also shown to benefit health in law enforcement (de Terte, Stephens, and Huddleston 2014)]. Trajectories of resiliency, stress response, and recovery have also been demonstrated in the literature, realizing potential of stress predictors for classes of law enforcement officers, from academy training through the first 48 months on the job (Galatzer-Levy et al. 2013).

Prevention through resilience training has become a focus in law enforcement health research, particularly as current coping strategies for law enforcement stress are considered suboptimal. Literature suggests around 25% of law enforcement officers report alcohol intake as a means to cope with job stress. Additionally, law enforcement officers have been identified as at risk for substance abuse due to pressures of the job as well as availability of illicit drugs alongside community interactions (Austin-Ketch et al. 2012). Suboptimal coping affects personal relationships for law enforcement officers as well. PTSD and alcohol intake have been correlated to domestic violence committed by law enforcement officers. In a recent study, it was found that officers who experience PTSD were four times more likely to report using physical violence and law enforcement officers who identified with dependent drinking reported physical violence in an intimate relationship eight times more often (Oehme, Donnelly, and Martin 2012). Clearly, the literature reveals potential for better coping strategies, even definitive prevention strategies, as they relate to law enforcement and job stress.
continued from page 11

Communities are also affected when public servants are disproportionately affected by stress. Errors on the job, falling asleep behind the wheel, absenteeism, making a serious administrative error and uncontrolled anger were all more common for law enforcement officers with sleep disorders (Rajaratnam et al. 2011). Literature has also found that highly stressed LEOs are more likely to choose deviant rather than citizenship behaviors (Russell L M Cole B M 2014). A recent paper highlighted that anger has been shown to alter judgement, placing increased blame and punishment on perpetrators (Kaplan 2016; Ask and Pina 2011). Performance issues significantly affect public safety and public trust. Communities throughout the United States care for and are cared for those that enforce the law. Literature has acknowledged consideration of law enforcement health and interactions with the public, communities and overall public health. In fact, the concept of law enforcement public health (LEPH) has recently been shaped. Efforts to understand law enforcement’s role in public harm reduction and the benefits of community policing continue. With these efforts, literature continues to show that unapproachable, militaristic, and dominant policing systems of some countries lead to widespread mistrust and avoidance of community cooperation; inversely, local policing that seeks to remove corruption, seeks public connection and values social service realizes community cooperation benefit (Punch and James 2017).

Recommendations

Recommendations to address law enforcement health disparities for effective management are abundant and feasible. Research on law enforcement health must improve, with consistency in details. Research must be designed for maximum impact and avoidance of limitations. Implementation of interventions must be maximized through and for evidence-based science. Finally, law enforcement health must be regarded as an aspect of community health, impactful to everyone part of the public.

Opportunities in law enforcement health research

First, access to journals for law enforcement and occupational health should be open and publicly available. In effort to increase wellness and quality of life for law enforcement officials, it is crucial that all have access to accurate research and data on law enforcement occupational health. Law enforcement comprises a public entity paid for by tax dollars and most are public employees afforded health benefits through retirement. Taxpayers via government agencies often fund research on behalf of law enforcement, but much of the literature on law enforcement health is not free to access. In effort to provide optimal care, research on law enforcement officials funded through taxes should be available to the public.

Second, future research should strive to include all law enforcement agents in research. Often scope of practice in study subjects is limited to officers employed by police departments, but including parole officers, corrections professionals and federal law enforcement in various, non-traditional roles can be of benefit. The nature of law enforcement officers, including job tasks and titles, should be clearly defined and stratified. Notably, consideration should be given for inclusion of law enforcement in legal and prosecutorial environments, acknowledging psychological impacts of daily stressors that accompany interpersonal crime review.

Additionally, coordinated efforts for research must take precedence. Much research is done without medical records or only with selective database input. In example, a study of cardiovascular deaths in U.S. law enforcement could not determine underlying contributors as the only available data was the death and activity while on the job (Varvarigou et al. 2014). Inclusion of medical records and ongoing databases would be of benefit. Additionally, the use of workers compensation data can benefit injury prevention. In example, a recent report from Illinois found 45% of the claims to be from correctional officers, and the report also found a wide variance to injury type based on type of law enforcement work (Holloway-Beth et al. 2016). Health service research agencies should work to align funding to academic medicine and law enforcement occupational projects. Because of limitations and ethics on trauma and individuals, it will continue to be natural to involve first responders and law enforcement in PTSD research. As such, these public servants should see benefits from research participation in way of funded interventions across major urban, suburban, and rural consortiums. Additionally, the application of cross specialty medicine must become priority. As psychology, behavior and occupational health continue to present consistency in data, the concept that law enforcement wellness affects the entire community must be addressed. Preventative and mitigative strategies that provide resilience, such as gratitude, satisfaction and positive coping could be further researched and potentially utilized during initial LEO training stages (Price... continued on page 13
Professional under examination. Primary care must stand its role in adult health, regardless of the law wellness. Importantly, primary care must also be provided some structure on law enforcement healthcare. Occupational health and medicine must be accounted for. Finally, research must translate to guidance for populations the data is collected from. Potential for biomarker research in large sample sizes, strive for replication, accuracy and reliability consensus on occupational health. Biomarker research should take an active leadership role in partnering with law enforcement agencies on standardization and established throughout regions. Once interventions are standardized and scaled nationally, continuous health service research via evaluation and quality studies can assist in prevention and resilience strategies. Academic research consortia can and should take an active leadership role in partnering with law enforcement agencies on standardization of tools. Scaling of law enforcement wellness can one day be scrutinized and shared for best practices internationally as well.

Fifth, objective data must become priority. Biomarkers show strong promise in stress, PTSD, and occupational health. Biomarker research should strive for replication, accuracy and reliability consensus among medical specialists. There is strong potential for biomarker research in large sample sizes, which can serve both medical scientists and the populations the data is collected from. Finally, research must translate to guidance for healthcare. Occupational health and medicine must be provided some structure on law enforcement wellness. Importantly, primary care must also understand its role in adult health, regardless of the law professional under examination. Primary care must be accountable to occupational health considerations, and this is especially true given chronic health disparities facing law enforcement.

There is extensive literature on law enforcement health, with much of the focus on mental health and wellbeing. Coping, prevention, and resilience strategies are promising. Predisposition and background data among law enforcement officer health research can assist in tailoring future interventions that are personalized. Community impacts of stress are also a strong potential of quality in research agenda.

Opportunities in law enforcement health interventions

There are several opportunities in law enforcement health interventions, chiefly in medicine and within law enforcement administration. Clinical implications from occupational health research among law enforcement officers are significant, dynamic and should be part of primary care consideration. In instance, poor sleep quality should be assessed in LEO physicals and updated guidelines followed. Recent research has found that poor sleep quality is found to contribute to poor mental health but not cardiovascular disease (Everding et al. 2016). Thus, in this instance primary care could consider a deeper examination of mental health as a result of poor sleep assessments. Too, should cardiovascular abnormalities present, primary care could seek alternative causes and treatments for the increased cardiovascular diseases noted in LEOs. Rather than write it off as stress, the clinician could better address nutritional health or substance abuse.

Information provided to law enforcement on potential adverse effects from occupational hazards can become conversation points between officers and their doctors. In the literature addressing law enforcement officers and stress, it is advised that law enforcement officers discuss all potential symptoms with providers. It is also recommended that providers consider psychological implications in physical symptoms, as PTSD may present if underlying stress is not resolved in an adequate manner (Austin-Ketch et al. 2012). Primary care providers should incorporate occupational health considerations with every visit, as future research and its implications
become widespread.

Additionally, disparities among law enforcement and health outcomes must also be addressed by researchers and translated to guidance for law enforcement administration. In instance, data from the Oregon and Washington SHIELD study found women law enforcement officers to be significantly more burned out than their male counterparts (Elliot et al. 2015). Stressors have been stratified by gender, with lack of supervisor support and poor quality of equipment found to be more prevalent among female officers and public criticism, court appearance and political pressure a more prevalent stress among male officers (Violanti et al. 2016). Disparities in law enforcement must be acknowledged and there must be a path forward on what to do with the information.

Law enforcement can advocate for best health plans, information dissemination and wellness strategies among participants and their departments. Policymakers and police unions could also utilize current recommendations when working toward privacy and confidentiality within patient-provider relationships.

Law enforcement administration must also take leadership in law enforcement wellness. Professional leadership must address intervention needs. In instance, it has been noted that other industries have created effective change on behalf of motor vehicle accident data, including those in the postal work industry (Eastman et al. 2017). Motor vehicle accident prevention can and should be addressed in law enforcement as a coordinated effort. This is especially true if general trends do not match trends within law enforcement health. Motor vehicle related fatalities have decreased by 25% for the general population over the past decade, yet this statistic does not apply to law enforcement (Eastman et al. 2017). Statistical trends that demonstrate differences between law enforcement and general public health trajectories are even more alarming and therefore must demand an even greater prioritization.

Additionally, law enforcement administration must help shape priorities when resources are limited. It has been noted in literature that additional stressors, such as poor sleep quality, may contribute to cholesterol, hypertension and diabetes prevalence for law enforcement (Kuehl et al. 2014). If these assumptions are accompanied by strong hypotheses or data, future studies should seek to prioritize targeting of the root causes and underlying contributors. In the aforementioned example, targeting sleep and measuring clinical data over large, countrywide data sets would assist.

Another managerial consideration is the acknowledgment of stress based on operations. In example, correlation between shift work and stress has been noted. With non-day shift work associated to more stress (Ma et al. 2015), healthcare interventions and preventative strategies should follow. In another example, data shows that 25% of cardiovascular deaths occur for LEOs during restraints/altercations and 20% of these deaths occur in physical training (Varvarigou et al. 2014). Driven by this data, administration could consider operational interventions, such as AEDs, or prevention, such as heightened screenings, as best possible. In fact, leadership could even partner with nationwide databases to collect all cardiovascular events, not just deaths.

Administration must also drive change in psychological wellness while holding research accountable to evidence. There are inconsistent findings on psychological interventions, counseling and effectiveness for LEOs. Literature has noted that part of the reason for this inconsistency is lack of engagement by LEOs, and mandatory counseling has been suggested as a means to overcome the stigma of psychological services (Steinkopf, Hakala, and Van Hasselt 2015). Notably, improved research and evidence must also accompany policy decisions, and therefore professional leadership should advocate for better psychological science and research toward LEO health.

Policy decisions around health must also be made even during a paucity of data. In instance, Metabolic Syndrome (MetS) affects 25% of LEOs that worked at the World Trade Center after 9/11 (Mo-line et al. 2016). Regardless of if MetS is more strongly associated with stress, shift work or environmental contaminants, policy decisions on healthcare coverage must match the findings currently available.

Law enforcement administration can partner with research and interventions at the professional level. Transformational leadership concepts, sense-making and shared stress, coping mechanisms and positive communication have all been identified as potential mitigators for LEO burnout (Russell L M Cole B M 2014). It has also been noted that coping may play a role in suicidal ideation, and transforma-
ional leadership can model positive coping. Too, ethnically diverse departments experience higher levels of avoidance behavior, a fact that strong leadership can target and address (Russell L M Cole B M 2014).

Law enforcement can also take the initiative to acknowledge, suggest and initiate conversations on law enforcement definition. This collegial approach has the opportunity to remove silos in first responders, daily psychological and physical stress at the jail and administrative stress at the criminal complaint desk. The collegial approach also provides the opportunity to shift law enforcement health and wellness conversations to include the concept of allostatic load. Should a police officer move to a prosecutor office, the allostatic load, coping and health risks still matter.

Finally, there is strong potential for research to address the concept that stress among law enforcement officers may directly affect the public and communities they serve. This impression is continually inferred and at times directly stated in the literature. Due to the unknown effects of law enforcement officer stress on the communities they serve, and because of the potentially widespread and lasting consequences these effects may have on the public, it is necessary for future research to address the issue. Essentially, it is necessary for medicine, law enforcement, and government agencies to understand and shape policy, practice, and healthcare for law enforcement from the individual to the public. Community policing, social service and public trust are important concepts all their own for public harm reduction (Punch and James 2017). These strategies must be acknowledged in research, for additional social service partnerships and for global scaling. These future research and prevention strategies must be evidence based with absolute follow through.

Because so much is placed upon law enforcement on a daily basis, it is on us all to create comprehensive wellness strategies. Providers, policymakers, administrators and healthcare researchers should prioritize service delivery and research recommendations for improved law enforcement officer health. These strategies benefit the individuals in law enforcement, thereby benefiting the public’s health.

Conclusion

Law enforcement health and wellness continues to be approached. It is imperative that research, clinical guidance and law enforcement operations embrace coordinated care, quality in research and scaled interventions to maximize health. Additionally, it has never been more critical that law enforcement and communities examine public health effects that result from law enforcement wellness. Recommendations to improve law enforcement health are feasible and must be priority to secure the health of the greater public.

Compliance with Ethical Standards section

Disclosure of potential conflicts of interest

The author has no conflict of interest to declare.

Ethical approval (including the required reference to the 1964 Helsinki Declaration)

This article does not contain any studies with human participants or animals performed by any of the authors

Informed consent

This article does not contain any studies with human participants or animals performed by any of the authors

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Dâderman, Anna M., and Daniel De Colli. 2016. “The Significance of the Sense of Coherence for Various... continued on page 16
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continued on page 17

“Good leaders need a positive agenda, not just an agenda of dealing with crisis.”

Michael Porter
continued from page 16


Julie Babyar is a registered nurse and public health professional. She has experience in private and public health. She remains dedicated to fine-tuning individual parts of the healthcare system alongside a comprehensive, global approach. She works with the understanding that as healthcare is doing good, healthcare must keep doing good. Julie resides in Northern California and enjoys yoga, walking and cooking. You can find her on social media, rooting for home runs on a daily basis.

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Garrison (2018) failed to mention the association with the 8th and the 14th Amendments as well. The 8th Amendment protects against cruel and unusual punishment. The 14th Amendment protects against deprivation of life, liberty, or property without due process. Appropriateness for both of these amendments is evaluated using the shocks the conscience test. The criteria for this test include determining if the force was used to punish or accomplish a legitimate law enforcement goal.

Each use of force by a police officer, with force defined as anything more than a firm grip, must pass a two-part test, necessity and reasonableness. First, the force used must be necessary to protect human life or prevent injury, or to affect a lawful arrest that is actively being defeated. Secondly, the force applied must be reasonable in amount and application (Curtis, 2014).

Paradigms of police use of force can be affected by the media. The media (television, news sources, social media) reports excessive use of force by police officers and covers deadly use of force incidents often. The media reports often focus public attention on the negative and improper use of deadly force by police officers. Such reports serve to encourage a misrepresentation of reality in the hundreds of thousands of police-citizen contacts taking place each day nation-wide.

However, current empirical research by Pinizzotto, Davis, Bohrer, & Infanti, (2012), found that even appropriate use of deadly force is often avoided by police. Pinizzotto et al. (2012), found that 70% of police officers reported not using deadly force when it would have been legal, and justified. Police officers restrained their use of deadly force even when the officer faced a deadly threat to themselves in 93% of situations. Pinizzotto, et al. (2012), found that overall, officers hesitate to use deadly force.

Additional researchers found that in more than 99% of deadly force encounters with police, the involved suspects are armed with a deadly weapon when they are “killed” by police, over two-thirds of these suspects possess a gun at the time of the incident (Menifield, Shin, & Strother, 2018).

Paradigms can also be affected by measurement error, which has influenced existing data on deaths caused by police. From 2013 to 2015, there were 1,333 more recorded deaths by police than reported by the FBI as justifiable homicides by police (Lott, 2016). These errors exist due to manners of reporting deaths by police into data systems. Reporting justifiable homicides by police into the FBI’s Uniform Crime Reporting program is voluntary, and many encounters are not reported (Lott, 2016). Another cause for error arises out of National Vital Statistics System (NVSS) where data is recorded from the medical examiners’ cause of death description. However, over half of the deaths caused by police were misclassified in 2015 (Renner, 2019).

Methodology

A non-randomized cross-section of students enrolled in law enforcement classes at a large Midwestern university were sampled during the Fall 2019 semester for this research. Both upper and lower division students were invited to complete a survey on their views of police and use of deadly force by the police. 200 surveys were distributed and 186 were returned.

Our dependent variable used in this study is the student’s paradigm regarding police use of deadly force. The independent variable is the level of study in pursuit of a LE degree at the university.

Control variables present in the study included age, racial origin, gender, level of education, mother’s level of education, father’s level of education, marital status, age at which the U.S. Constitution test was taken, previous experience as a police explorer or auxiliary officer, military experience, multilingualism, family member in law enforcement, LE major, born in the United States, type of high school attended, region reared, future career aspirations, prior arrests as an adult, and prior contact with police.

For the bivariate analyses, responses to the survey items measuring student paradigms were combined to make table interpretation easier. Those who answered “disagree” and “strongly disagree” were combined into “disagree or strongly disagree” and those who answered “agree” and “strongly agree” were combined into “agree or strongly agree.” Racial origin was also collapsed to only four variables. Given that the number of Native Americans and Asian/Pacific Islanders were minute in the sample, they were encapsulated into the “other” category.

Responses to the number of LE courses completed ranged from 0 to 20. The responses were then divided into four categories based upon their curriculum. It is expected that 2 LE courses are completed within the first two semesters, 4 courses within 4
semesters, 8 courses within 6 semesters, and 9 or more by graduation. Thus, the categories were based on that curriculum and as follows: 0 to 1, 3 to 4, 5 to 8, and 9 or more courses.

Results

Table 2 represents the total number of responses (N), minimum value recorded, maximum value recorded, and the mean, median, and standard deviations of all recorded values for all survey items.

Table 2. Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Median</th>
<th>Std. Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
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<td>20.00</td>
<td>1.974</td>
<td>18</td>
<td>32</td>
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<td>racial origin</td>
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<td>1.00</td>
<td>1.333</td>
<td>1</td>
<td>6</td>
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<tr>
<td>gender</td>
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<td>1.38</td>
<td>1.00</td>
<td>0.486</td>
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<td>2</td>
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<td>level of education</td>
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<td>3.02</td>
<td>3.00</td>
<td>1.027</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>mother's level of education</td>
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<td>1.76</td>
<td>1.00</td>
<td>1.053</td>
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<td>5</td>
</tr>
<tr>
<td>father's level of education</td>
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<td>1.85</td>
<td>1.00</td>
<td>1.339</td>
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<td>5</td>
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<td>marital status</td>
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<td>1.20</td>
<td>1.00</td>
<td>0.542</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>number of LE courses completed</td>
<td>186</td>
<td>6.89</td>
<td>6.00</td>
<td>5.200</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>age when Constitution test was taken</td>
<td>182</td>
<td>14.19</td>
<td>14.00</td>
<td>2.017</td>
<td>8</td>
<td>18</td>
</tr>
<tr>
<td>previous experience as a police explorer or auxiliary officer</td>
<td>185</td>
<td>1.86</td>
<td>2.00</td>
<td>0.346</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>military experience</td>
<td>186</td>
<td>1.90</td>
<td>2.00</td>
<td>0.296</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>speaks more than one language</td>
<td>185</td>
<td>1.72</td>
<td>2.00</td>
<td>0.448</td>
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<td>2</td>
</tr>
<tr>
<td>family member in law enforcement</td>
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<td>1.60</td>
<td>2.00</td>
<td>0.491</td>
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<td>2</td>
</tr>
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<td>LE major</td>
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<td>1.00</td>
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<td>born in the US</td>
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<td>1.00</td>
<td>0.146</td>
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<td>2</td>
</tr>
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<td>type of high school</td>
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<td>region reared</td>
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<td>0.986</td>
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<td>5</td>
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<tr>
<td>future career aspirations</td>
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<td>2.24</td>
<td>2.00</td>
<td>1.407</td>
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<td>5</td>
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<tr>
<td>prior arrests as an adult</td>
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<td>1.95</td>
<td>2.00</td>
<td>0.226</td>
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<td>2</td>
</tr>
<tr>
<td>prior contact with police been generally positive</td>
<td>185</td>
<td>1.14</td>
<td>1.00</td>
<td>0.343</td>
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<td>2</td>
</tr>
<tr>
<td>police officers in the United States misuse deadly force</td>
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<td>2.99</td>
<td>3.00</td>
<td>1.073</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>police adhere to their department's policy on use of deadly force</td>
<td>185</td>
<td>3.50</td>
<td>4.00</td>
<td>0.822</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>police use deadly force in situations where a less than lethal amount of force would have successfully ended the conflict</td>
<td>184</td>
<td>3.24</td>
<td>3.00</td>
<td>1.065</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>I am aware of the circumstances under which police officers are legally allowed to use deadly force</td>
<td>186</td>
<td>4.32</td>
<td>4.00</td>
<td>0.651</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>I would describe myself as religious</td>
<td>186</td>
<td>3.20</td>
<td>4.00</td>
<td>1.340</td>
<td>1</td>
<td>5</td>
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<td>racial bias has an impact on officer use of deadly force</td>
<td>186</td>
<td>3.34</td>
<td>4.00</td>
<td>1.221</td>
<td>1</td>
<td>5</td>
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<td>gender bias has an impact on officer use of deadly force</td>
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<td>2.91</td>
<td>3.00</td>
<td>1.189</td>
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<td>5</td>
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<td>police use of deadly force is appropriate</td>
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<td>4.00</td>
<td>1.111</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>police officers should attempt to use all less than lethal uses of force before employing deadly force</td>
<td>186</td>
<td>3.78</td>
<td>4.00</td>
<td>1.120</td>
<td>1</td>
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<tr>
<td>police officers should not be allowed to use deadly force</td>
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<td>1.61</td>
<td>1.00</td>
<td>0.785</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>police use of deadly force has increased in the last five years</td>
<td>186</td>
<td>3.34</td>
<td>3.00</td>
<td>0.941</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>police use of deadly force is reported truthfully by the media</td>
<td>186</td>
<td>1.90</td>
<td>2.00</td>
<td>0.809</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>police use of deadly force is reported truthfully in LE classes</td>
<td>185</td>
<td>3.70</td>
<td>4.00</td>
<td>0.852</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>I have learned most of what I know about police use of deadly force from LE classes</td>
<td>186</td>
<td>3.38</td>
<td>4.00</td>
<td>1.065</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>I have learned most of what I know about police use of deadly force from the media</td>
<td>186</td>
<td>2.29</td>
<td>2.00</td>
<td>1.204</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>the information I learned from LE courses has changed my opinion on police use of deadly force</td>
<td>186</td>
<td>3.24</td>
<td>3.00</td>
<td>1.003</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>my views on police use of deadly force are similar to the views of my family</td>
<td>185</td>
<td>3.33</td>
<td>3.00</td>
<td>1.040</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>police do not adhere to their department's policy on use of deadly force</td>
<td>186</td>
<td>2.59</td>
<td>3.00</td>
<td>0.860</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>police officers should be allowed to use deadly force</td>
<td>186</td>
<td>4.16</td>
<td>4.00</td>
<td>0.922</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>I generally support the police in America</td>
<td>186</td>
<td>4.30</td>
<td>5.00</td>
<td>0.873</td>
<td>2</td>
<td>5</td>
</tr>
</tbody>
</table>

continued on page 20
“When written in Chinese, the word 'crisis' is composed of two characters. One represents danger and the other represents opportunity.”

John F. Kennedy

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The results indicate that the majority of the respondents in this sample were aged 21 (28.5%); white (55.4%); male (61.3%); seniors (40.9%); single (83.9%); monolingual (72.0%); LE majors (96.2%); born in the United States (97.3%); reared in the Midwest (88.7%). A majority of respondents had mothers with a high school level of education (52.7%); fathers with a high school level of education (59.7%); no experience as a police explorer or auxiliary officer (85.5%); no military experience (90.3%); no prior arrests as an adult (94.6%); generally positive prior contact with police (86.0%). A majority attended public high school (91.9%); desired a career in federal law enforcement (39.2%); and did not have a family member in law enforcement (60.2%). There was no clear majority in the number of LE courses or the age in which they took the U.S. Constitution test.

A majority of respondents disagreed that police officers in the United States misuse deadly force (38.2%); agreed that police adhere to their department’s policy on use of deadly force (48.9%); agreed that police use deadly force in situations where a less than lethal amount of force would have successfully ended the conflict (39.2%); agreed that they were aware of the circumstances under which police officers are legally allowed to use deadly force (55.4%); agreed that they would describe themselves as religious (35.5%); agreed that racial bias has an impact on officer use of deadly force (37.6%); agreed that gender bias has an impact on officer use of deadly force (35.5%); agreed that police use of deadly force is appropriate (40.3%); agreed that police officers should attempt to use all less than lethal uses of force before employing deadly force (43.0%); strongly disagreed that police officers should not be allowed to use deadly force (52.7%); had no opinion on if police use of deadly force has increased in the last five years; disagreed that police use of deadly force is reported truthfully by the media (49.5%); agreed that police use of deadly force is reported truthfully in LE classes (47.3%); agreed that they have learned most of what they know about police use of deadly force from LE classes (45.2%); disagreed that they have learned most of what they know about police use of deadly force from the media (37.1%); agreed that the information they learned from LE courses has changed their opinion on police use of deadly force (37.6%); agreed that their views on police use of deadly force are similar to the views of their family (38.7%); had no opinion on if police do not adhere to their department’s policy on use of deadly force (38.7%); agreed that police officers should be allowed to use deadly force (41.9%); strongly agreed that they generally support the police in America (51.6%).

The item “police officers in the United States misuse deadly force” was chosen because it is clear in wording and embodies what the survey is attempting to determine. The racial origin variable was collapsed to only four variables. Given that the number of Native Americans and Asian/Pacific Islanders were minute in the sample, they were encapsulated into the “other” category (Table 3).

**Table 3. Police misuse of deadly force and race (N=165)**

<table>
<thead>
<tr>
<th>Police officers in the United States misuse deadly force</th>
<th>White</th>
<th>Hispanic</th>
<th>Black</th>
<th>Other</th>
<th>Row Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree or strongly disagree</td>
<td>60.2</td>
<td>25.0</td>
<td>7.7</td>
<td>35.7</td>
<td>43.1</td>
</tr>
<tr>
<td>Agree or strongly disagree</td>
<td>19.4</td>
<td>62.5</td>
<td>80.8</td>
<td>42.9</td>
<td>39.3</td>
</tr>
<tr>
<td>No opinion</td>
<td>20.4</td>
<td>12.5</td>
<td>11.5</td>
<td>21.4</td>
<td>17.5</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Respondents who were most likely to agree or strongly agree that police officers in the United States misuse deadly force were Black respondents (80.8%), followed by Hispanic respondents 62.5%). The group least likely to agree or strongly agree were White respondents (19.4%).

**Bivariate Analyses**

Bivariate analyses were conducted, first testing the association between the responses for the survey item which read “police officers in the United States misuse deadly force” and the independent and control variables. Previous experience as a police explorer or auxiliary officer, future career aspiration, and reporting that prior contact with police has been generally positive were found to be significant but violated the minimum number of responses to qualify the Chi² measurement. Tables 4 represent the findings. Only those that were found to be statistically significant are displayed. The numbers outside the parenthesis represent the percentages, the numbers in the parenthesis represent the frequencies.

*continued on page 21*
### Table 4. Attitudes towards police use of force among Law Enforcement students (N=165)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Attribute</th>
<th>Disagree or strongly disagree</th>
<th>Agree or strongly agree</th>
<th>No opinion</th>
<th>p/Cramer’s V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Police officers in the United States misuse deadly force</td>
<td>Male</td>
<td>54.4 (62)</td>
<td>28.1 (32)</td>
<td>17.5 (20)</td>
<td>0.000/ 0.329</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>23.5 (16)</td>
<td>58.8 (40)</td>
<td>17.6 (12)</td>
<td></td>
</tr>
<tr>
<td>number of completed LE courses of respondent by response to “police officers in the United States misuse deadly force”</td>
<td>4 or fewer courses</td>
<td>27.5 (19)</td>
<td>46.3 (31)</td>
<td>55.2 (16)</td>
<td>0.015/ 0.225</td>
</tr>
<tr>
<td></td>
<td>5 or more courses</td>
<td>72.5 (50)</td>
<td>53.7 (36)</td>
<td>44.8 (13)</td>
<td></td>
</tr>
<tr>
<td>completed LE courses of respondent by response to “police adhere to their department’s policy on use of deadly force”</td>
<td>4 or fewer courses</td>
<td>40.9 (9)</td>
<td>30.4 (28)</td>
<td>58.0 (29)</td>
<td>0.006/ 0.250</td>
</tr>
<tr>
<td></td>
<td>5 or more courses</td>
<td>59.1 (13)</td>
<td>69.6 (64)</td>
<td>42.0 (21)</td>
<td></td>
</tr>
<tr>
<td>completed LE courses of respondent by response to “police use of deadly force is appropriate”</td>
<td>4 or fewer courses</td>
<td>62.2 (23)</td>
<td>29.7 (27)</td>
<td>43.2 (16)</td>
<td>0.003/ 0.267</td>
</tr>
<tr>
<td></td>
<td>5 or more courses</td>
<td>37.8 (14)</td>
<td>70.3 (64)</td>
<td>56.8 (21)</td>
<td></td>
</tr>
<tr>
<td>completed LE courses of respondent by response to “police officers should attempt to use all less than lethal uses of force before employing deadly force”</td>
<td>4 or fewer courses</td>
<td>21.2 (7)</td>
<td>46.1 (53)</td>
<td>35.3 (6)</td>
<td>0.034/ 0.203</td>
</tr>
<tr>
<td></td>
<td>5 or more courses</td>
<td>78.8 (26)</td>
<td>53.9 (62)</td>
<td>64.7 (11)</td>
<td></td>
</tr>
<tr>
<td>completed LE courses of respondent by response to “I have learned most of what I know about police use of deadly force from LE”</td>
<td>4 or fewer courses</td>
<td>48.9 (23)</td>
<td>31.2 (29)</td>
<td>56.0 (14)</td>
<td>0.027/ 0.210</td>
</tr>
<tr>
<td></td>
<td>5 or more courses</td>
<td>51.1 (24)</td>
<td>68.8 (64)</td>
<td>44.0 (11)</td>
<td></td>
</tr>
<tr>
<td>completed LE courses of respondent by response to “I have learned most of what I know about police use of deadly force from the media”</td>
<td>4 or fewer courses</td>
<td>30.9 (34)</td>
<td>61.0 (25)</td>
<td>50.0 (7)</td>
<td>0.003/ 0.268</td>
</tr>
<tr>
<td></td>
<td>5 or more courses</td>
<td>69.1 (76)</td>
<td>39.0 (16)</td>
<td>50.0 (7)</td>
<td></td>
</tr>
<tr>
<td>completed LE courses of respondent by response to “the information I learned from LE course has changed my opinion on police use of deadly force”</td>
<td>4 or fewer courses</td>
<td>32.6 (14)</td>
<td>32.9 (25)</td>
<td>58.7 (27)</td>
<td>0.010/ 0.237</td>
</tr>
<tr>
<td></td>
<td>5 or more courses</td>
<td>67.4 (29)</td>
<td>67.1 (51)</td>
<td>41.3 (19)</td>
<td></td>
</tr>
</tbody>
</table>

“In crisis management, be quick with the facts, slow with the blame. Leonard Saffir

continued on page 22
According to the results presented in Table 4, female respondents were more likely to agree or strongly agree that police officers in the United States misuse deadly force than male respondents (58.8% vs 28.1%). Bivariate analyses were also conducted testing the association between the number of LE courses completed by the respondent and the survey items measuring paradigms on police use of deadly force. For the bivariate analyses, responses to the survey items measuring paradigm par- adigms were combined to make table interpretation easier. Those who answered “disagree” and “strongly disagree” were combined into “disagree or strongly disagree” and those who answered “agree” and “strongly agree” were combined into “agree or strongly agree.” Responses to the number of LE courses completed ranged from 0 to 20. The responses were then divided into four categories based upon the curriculum. It is expected that 2 LE courses are completed within the first two semesters, 4 courses within 4 semesters, 8 courses within 6 semesters, and 9 or more by graduation. Thus, the categories were based on that curriculum and as follows: 0 to 1, 3 to 4, 5 to 8, and 9 or more courses. Figure 1 depicts the number of respondents in each of the four categories.

A statistically significant (p < .05) association was found between number of courses completed and responses to “police adhere to their department’s policy on use of deadly force,” “police use of deadly force is appropriate,” “police officers should not be allowed to use deadly force,” “police use of deadly force is reported truthfully in LE classes,” “I have learned most of what I know about police use of deadly force from the media,” “the information I learned from LE courses has changed my opinion on police use of deadly force.” It is important to note that “police adhere to their department’s policy on use of deadly force” was also asked in the negative as “police do not adhere to their department’s policy on use of deadly force,” and was also statistically significant when analyzed against number of LE courses completed. Table 4 represents those findings. Only those that were found to be statistically significant are displayed. The numbers outside the parenthesis represent the frequencies, the numbers in the parenthesis represent the percentages, the numbers in the parenthesis represent the frequencies.

Respondents who disagreed or strongly disagreed that police officers in the United States misuse deadly force, most were those that completed 5 or more LE courses (72.5%). The group least likely to disagree or strongly disagree were respondents that completed 4 or fewer courses (27.5%). In addition, respondents who agreed or strongly agreed that police adhere to their department’s policy on use of deadly force, most were those that completed 5 or more LE courses (69.6%). The group least likely to agree or strongly agree were respondents that completed 4 or fewer courses (30.4%). Similarly, respondents who agreed or strongly agreed that police use of deadly force is appropriate, most were those that completed 5 or more LE courses (70.3%). The group least likely to agree or strongly agree were respondents that completed 4 or fewer courses (29.7%).

Respondents who disagreed or strongly disagreed that police officers should attempt to use all less than lethal uses of force before employing deadly force, most were those that completed 5 or more LE courses (78.8%). The group least likely to disagree or strongly disagree were respondents that completed 4 or fewer courses (21.2%). Similarly, respondents who agreed or strongly agreed that they have learned most of what they know about police use of deadly force from LE classes, most were those that completed 5 or more LE courses (68.8%). The group least likely to agree or strongly agree were
respondents that completed 4 or fewer courses (31.2%). In addition, respondents who agreed or strongly agreed that they have learned most of what they know about police use of deadly force from the media, most were those that completed 4 or fewer LE courses (61.0%). The group least likely to agree or strongly agree were respondents that completed 5 or more courses (39.0%). Respondents who agreed or strongly agreed that the information they learned from LE courses has changed their opinion on police use of deadly force, most were those that completed 5 or more LE courses (67.1%). The group least likely to agree or strongly agree were respondents that completed 4 or fewer courses (32.9%).

Discussion

The sample in this study was composed of a majority of respondents who were single (83.9%), LE majors (96.2%), born in the United States (97.3%), reared in the Midwest (88.7%). The majority had no experience as a police explorer or auxiliary officer (85.5%), no experience in the military (90.3%), no prior arrests as an adult (94.6%), generally positive prior contact with police (86.0%), and attended a public high school (91.9%).

A majority of the respondents in this sample (94.6%) agreed or strongly agreed that they are aware of the circumstances under which police officers are legally allowed to use deadly force. 89.8% disagreed or strongly disagreed that police officers should not be allowed to use deadly force. 82.3% disagreed or strongly disagreed that police use of deadly force is reported truthfully by the media. 83.3% agreed or strongly agreed that police officers should be allowed to use deadly force. 84.4% agreed or strongly agreed that they generally support the police in America.

The results of the analysis of dependent variable “police officers in the United States misuse deadly force” showed that there were factors that were associated with level of agreement to the statement. As can be seen in Table 3, a majority of white respondents disagreed or strongly disagreed that police officers in the United States misuse deadly force (60.2%). Their Hispanic and black counterparts had majorities that agreed or strongly agreed, 62.5% and 80.8% respectively. Table 4 shows the same survey item, but when analyzed by gender of the respondent. A majority of males disagreed or strongly disagreed that police officers in the United States misuse deadly force (54.4%), whereas a majority of female respondents agreed or strongly agreed (58.8%).

Through this research it was determined that the number of LE courses completed at the university is associated with student paradigms on police use of deadly force in the United States of America. The results indicate that as respondents report that they completed more LE courses, they are more likely to agree or strongly agree that police adhere to their department’s policy on use of deadly force, police use of deadly force is appropriate, they have learned most of what they know about police use of deadly force from LE classes, and the information they learned from LE courses has changed their opinion on police use of deadly force.

As the number of LE courses completed increases, students are also more likely to disagree that police officers in the United States misuse deadly force, police officers should attempt to use all less than lethal uses of force before employing deadly force, and they have learned most of what they know about police use of deadly force from the media. Figure 2 depicts a statistically significant difference between the responses of underclassmen and upperclassmen for the survey item “police use of deadly force is appropriate.”

Figure 1. Number of LE Courses Completed by Responses to “police use of deadly force is appropriate” in percentages

Figure 1 reflects the percentage of respondents that answered the survey item within each grouping of completed course number. The results reflect that as the number of completed LE courses increases, respondents become more likely to change their personal paradigm on the appropriateness of police use of deadly force. Students become more aware of the circumstances under which police can legally employ deadly force and agree that police use of force is appropriate.
To conclude, we posit our findings are worthwhile to educators, researchers, law enforcement workers, university students, and elected officials in guiding practice and policy. We also see openings for growth in this study. Conceivably, any future research exploring this same topic could be expanded to include a larger sample to ascertain if the same results are achieved. We envision a longitudinal or time-series design as useful; as well as, adding qualitative findings. Surely, there is plenty of room for expansion of this initial look at how paradigms concerning police use of deadly force appear to shift for students over the course of their university studies; however, it is now discovered the population sampled expresses a paradigm shift through the course of academic studies; with students adopting a more positive paradigm for interpreting police officer use of deadly force as they progress through academic courses.

References

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