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The Psychological Impact of Taser Utilization in Police Officers

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This is to certify that the doctoral dissertation by

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Walden University
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Abstract

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by

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MA, Argosy University, 2011

BS, Kaplan University, 2008

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

A substantial body of scientific and medical research has examined the relationship between conductive energy devices and their physical risk to humans. This phenomenological study focused on the psychological impact of Taser utilization in police officers. This research explored how the experience of using a Taser in the line of duty affected officers from the conceptual framework of stress inoculation training and its applicability to Taser certification; the typical mental processes associated with using less-lethal weapons, perceptions of Taser training; and, the preparation provided in training for citizen injuries and deaths. Fifteen officers who had deployed a Taser were included as participants. The sample consisted of 2 randomized groups of 5, and 1 convenience group of 5 officers involved in Taser-related deaths. Data were collected through digitally recorded interviews of the officers' lived experiences. Data were analyzed using a 5-step method of constant comparison to develop and code themed clusters using the officers' own words. Findings showed officers believed the Taser was the best non-lethal device available but they preferred not using a Taser on citizens. In addition, Taser training may not be legally sufficient as defined in relevant court cases. A recommendation is that stress inoculation segments should be included in Taser training courses. Findings indicate Taser-related deaths have the potential to cause extreme stress and trauma in the officers, changing their lives and that of their families forever.

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Dedication

This lifelong dream is dedicated to my mother, Marina Diaz Nino, for instilling that I could do anything I set my mind to, for her strength of character, unconditional love, and for her positive influence in my life. I aspire to possess your strength of character.

You are forever in my heart.

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Lastly, thank you to all the law enforcement officers of Galveston and Harris counties.

Blue lives matter to law abiding citizens.

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Chapter 1: Introduction to the Study

Empirical research on the medical effects of a conductive energy device discharge indicated there were no significant cardiovascular (Bozeman, Barnes, Winslow, Johnson, Phillips, & Alson, 2009); respiratory (Van Meenen, Lavietes, Cherniack, Bergen, Teichman, & Servatius, 2013); physiological (C. M. Sloane, personal communication, March 28, 2014); or cognitive effects (White, Ready, Kane, & Dario, 2014) of receiving a discharge on the human body.

In a medical review of the physiological effects of conducted energy devices (CEDs) for the City of Houston, Texas, Sloane asserted no research had been performed to investigate whether there were psychological effects of receiving a CED discharge. This research focused specifically on the psychological impact of CED utilization in law enforcement officers and whether resilience training (a form of mental preparation used in the military to inoculate soldiers from distress and potential trauma associated with combat) for weapons use was adequate in mitigating residual emotional problems in officers, when CED deployments resulted in citizen deaths.

Chapter 1 includes nine sections. The first section presents the background of the study which leads to the problem statement in section two. The third section designates the purpose of the study and the fourth section discusses the research questions. The conceptual framework is presented in the fifth section. The nature of the study is explained in section six, and the seventh section designates the definition of terms. Limitations are mentioned in section eight and the significance to social change is

discussed in the ninth section, ending with a summary and transition to the literature review.

Background of the Study

Police officers are trusted with the authority to make decisions on using force against resisting citizens (NIJ, 2011). The decisions about how to gain control of dangerous situations are complicated by use of physical force policies and less-lethal use of force options, criminal law guidelines, potential legal implications, continued negative public opinion, police-community relations, and self-preservation (Alpert et al., 2011). The emergence of CEDs was a result of the need to find alternatives to physical and lethal force with fewer and less serious injuries to citizens and officers (Paoline, Terrill, & Ingram, 2012). Officers now have the option of using Tasers as alternatives to deadly force, in addition to batons and chemical sprays (Alpert et al., 2011).

In 1999, TASER International introduced its first conductive energy weapon, the M26 Advanced TASER (Thomas A. Swift Electronic Rifle; Alpert & Dunham, 2010), and in 2003, it produced the TASER X26. Currently, the TASER X26 is the most widely used CED in law enforcement venues. The TASER projects two darts connected by wires to the device, delivering a 50,000-volt shock in 5-second cycles from 15-25 feet. The electrical discharge incapacitates the subject by overriding the nervous system and causing muscular disruption (Terrill & Paoline, 2012).

Over the past ten years, media coverage of citizen injuries and deaths associated with CEDs has instigated organizational and public critique of law enforcement policies regarding the decision to use CEDs to subdue citizens. This prompted a substantial body

of research which has examined the relationship between CEDs and citizen injuries. For example, three years ago, Van Meenen and associates (2013) examined the respiratory and cardiac functions in volunteer law enforcement participants ($N = 23$). Findings showed that the effects of CEDs on the human body vary dependent upon the individuals' health, the physical location of the darts when they enter the body, the distance between the darts, the distance from which the weapon is deployed, and the duration of the current (Van Meenen et al., 2013).

In another recent study, pilot research was funded by the National Institute of Justice, to examine the effects of CEDs on cognitive functioning in trainees at the San Bernardino County, California, police training center ($N = 21$). The investigation was based on consistent documentation of the neuropsychological effects of accidental electrical injury showing deficits in memory, attention, and concentration. Recruits underwent memory, concentration, and speed-of-learning tests 3 to 4 hours before exposure, 5 minutes after discharge, and 24 hours later (White, Ready, Kane, & Dario, 2014). The goal was to determine whether exposure to the electrical discharge of a CED affected cognitive functioning. Findings showed moderate to large effect sizes, suggesting deficits in various dimensions of cognitive functioning. Memory, concentration, and the feeling of being overwhelmed returned to normal speed-of-learning within 24 hours (White, Ready, Kane, & Dario, 2014).

Despite this medical research, little was known in terms of understanding the psychological impact of Taser utilization in officers when the situation ended in the death of a citizen. It was not known whether officers experienced the same mental processes,

when using a Taser, that are associated with the decision to use lethal force. It was known, that police officers acquire resilience training as part of their overall training to prepare them for using guns against citizens when the situations warrant lethal force (Grossman, 2008). This type of training is used to desensitize officers by experiencing the mental processes of killing before they are involved in actual altercations (Adler et al., 2013).

However, it is not known whether officers are mentally prepared to cope with a Taser discharge that results in death. Sheriff Henry Trochesett of Galveston County, Texas, stated weapons training drills do not include mental conditioning because moving pop-up targets in the shape of humans are used to elicit automatic reactions with the use of guns (personal communication, January 23, 2015). Weapons training is designed to serve as operant conditioning (Shaffer, 2002) and is intended to function as stress inoculation through mental preparedness for using guns in life-or-death situations (Grossman, 2008). Officers learn that when they draw their guns, they can expect a negative outcome, such as serious injury or death. The purpose of weapons training is to mentally-condition the trainee against the instinctive aversion to killing (Grossman, 2008). What was not known, was whether this type of resilience training mitigates the development of psychological symptoms when a Taser shock results in an unexpected citizen death.

Glenn R. Schiraldi, of the University of Maryland School of Public Health, and owner of Resilience Training International, proposes the competencies necessary to accomplish resilience are optimization of brain health and function, critical skills for

coping with stress and strong negative emotions, happiness, and strength of character (Schiraldi, 2011). Former Chief of Police, Vicky King of La Marque, Texas stated these three elements of resilience are not being taught during Taser certification training or at police academies (personal conversation, January 23, 2015).

In yet another recent study, three officers, who had used deadly force in the line of duty, were interviewed to explore the officers' experience of using deadly force (Broome, 2014). Participants expressed they had to first, assess the level of dangerousness of the situation, and confer with other officers as to the circumstances and the next plan of action. The officers stated the realization that an incident may become lethal is instantaneous and actualization of defensive action is immediate (Broome, 2014), and the emotional responses after a lethal incident are very intense. Officers experienced disruptive emotions and thoughts in the aftermath of using deadly force, even though, they had trained well for the day when they might have to shoot a citizen to ensure their safety or the safety of the community. Officers stated they changed as individuals, their lives changed, and their disruptive feelings had not been completely resolved (Broome, 2014).

Accordingly, if officers cannot resolve disruptive feelings after a shooting death, it is possible they must not be coping with Taser-related deaths. The "code of silence" practiced by police officers dictates a reluctance to admit weakness and emotions, because it is not "macho" (Delattre, 2006). However, David Grossman (2009) believes the act of killing can be debilitating and life changing. For example, on the Frontline program of Public Broadcasting Station, KUHT, Channel 8 interviewed several mental

health professionals to explore their thoughts about the impact of killing and how best to prepare the soldier. Jim Dooley, a mental health counselor with the United States Department of Veterans' Affairs mentioned the psychological aspects of taking another persons' life are not fully understood (Dooley, 2005).

Andrew Pomerantz, Chief of Mental Health Services for the Veterans' Administration in Vermont indicated he has never met a person, who killed another, that was not traumatized by the act of killing. David Grossman, retired Lt. Colonel, United States Army, and Director of the Killology Research Group, mentioned in his interview with Frontline, that the act of killing leaves a person with the potential to be mentally impaired (Grossman, 2005). Dr. Matthew Friedman, Executive Director of the Veterans' Administration National Center for post traumatic stress disorder told Frontline that killing can be the most critical and traumatic experience for law enforcement officers and others (Friedman, 2005).

Problem Statement

Law enforcement agencies have been using conductive energy devices (CEDs) as a less-lethal use-of -force since the late 1970s (Terrill & Paoline, 2012). The most widely used CED in use by law enforcement agencies is the Thomas A. Swift Rifle, known as the Taser (White & Ready, 2007). Although Tasers have proven to cause less injuries to subjects and law enforcement officers compared to other less-lethal use of force items (MacDonald, Kaminski, & Smith, 2009; Sousa, Ready, & Ault, 2010), there has been much controversy as to their effects on citizens (Terrill & Paoline, 2012).

Scientific and medical empirical research on the physical risks of Tasers on humans indicates there are no significant cardiovascular (Bozeman et al., 2009; Ho et al., 2011; VanMeenen et al., 2013), physiological (C. M. Sloane, personal communication, March 28, 2014), or respiratory effects after receiving a Taser shock (Ready, White, & Fisher, 2008). Currently, this is the first known study, which examined whether the use of CEDs causes psychological impairment in officers.

Purpose of the Study

The purpose of this phenomenological qualitative research was to examine and understand the mental, physical, and emotional aspects of utilizing a CED in law enforcement officers. The goal was to explore the officers' "lived experiences" of Taser usage. A second objective was to understand whether the unintentional killing of a citizen with a Taser had the potential to cause residual emotional problems, from the perspective of the officers. Prior studies indicated this was the first study to investigate the psychological effects of using a CED; White, Ready, Kane, & Dario, 2014). The study focused specifically on a population of law enforcement officers whose Taser deployment was successfully in stopping a resistant citizen, officers that had used a Taser without success, and officers who had used a Taser believing the discharge would not cause serious injury, yet resulted in a citizen death.

Research Questions

The research questions for this study were: (a) How does using a conductive energy device in the line of duty personally affect the law enforcement officer? (b) How do law enforcement officers describe the experience of an unintended CED-related

death? (c) What mental processes are typical when using less-lethal weapons? (d) How do officers perceive the current CED training? (e) What kind of preparation is provided in training for deaths that may occur when CEDs are used?

Conceptual Framework

The concept of stress inoculation training (SIT), as introduced by Martin Seligman (Grossman, 2009), is premised upon providing military personnel and law enforcement officers with preparatory reality-based mental health training for using lethal force (Grossman & Christensen, 2008). SIT allows the trainee an opportunity to experience stress, practice decision-making for the use-of-lethal-force, and to experience the mental, physical, and emotional responses associated with the use of weapons and the act of killing (Grossman, 2008). The goal of SIT is to teach mental preparedness skills to prevent the development of residual emotional symptoms.

This study examined whether the training received by law enforcement officers inoculates them from the stress involved in utilizing a CED and whether stress inoculation training would be successful in mitigating the psychological risks of using CEDs. The research investigated specifically whether SIT is the type of training that should be used in law enforcement venues to mentally prepare officers for an unexpected and unintentional killing of a citizen, when they have chosen a less-lethal weapon to stop a resistant subject.

Nature of the Study

A phenomenological qualitative design was chosen for this study based on an exploratory strategy and purposive sampling (Creswell, 2014; Frankfort-Nachmias &

Nachmias, 2008; Gravetter & Wallnau, 2013). The reason for choosing this inductive approach was to describe and elucidate the officers' perspectives by combining data from audio-recorded interviews with information from observations for a more thorough understanding of the "lived experiences" phenomenon.

The intent of this project was to collect data from law enforcement officers already belonging to a specific group within the population. The sample included three groups of officers, who had used a Taser. The first and second groups were comprised of officers who had activated a Taser successfully to control resistant citizens and officers whose Taser deployments were not successful in controlling resistant citizens. The third group was comprised of officers whose Taser activation resulted in a citizens' death. Participant selection was performed by conducting a random cluster sampling of officers in Galveston and Harris County (Creswell, 2014). Qualitative digitally recorded interviews were used to collect data and transcriptions were verified with the participants. Data analysis was made by manual coding and was categorized using NVivo software (QSR International, 2012).

Limitations

Although, I used sampling procedures to reduce the influence of selection bias, the sample size was small and limited to one geographic area. A south Texas geographic area was chosen for ease of access to the various agencies in the counties which were included in this study. Moreover, the inclusion of only officers who had utilized a CED on citizens excluded officers from the study who may have received CED

training; yet, had not deployed the device. These officers may have had much to share regarding their training experiences that could have added to the elements of the study.

In addition, the concept of a phenomenological study called for the data collection to be conducted in naturalistic settings (Creswell, 2013), which called for the investigation to be conducted in the field. When I discovered this was not possible, the interviews were conducted in the Sheriffs' administrative offices or in my personal office, and this may have created unintentional bias. Another limitation was that although, I have a Bachelor of Science degree in criminal justice, I do not possess practicum in law enforcement and this may have limited a thorough understanding of the "lived experiences" of the officers.

Significance of the Study

The findings of this study may have important implications for changes in policy and agency guidelines for the use of Tasers as a less-lethal use of force option. In addition, this research emphasizes the need to include stress inoculation training (SIT) in the Taser certification training received by officers. This area of inquiry was important for several reasons. First, the extent of psychological impact of Taser utilization on law enforcement officers was not known. Secondly, it was not known whether the training received by officers during weapons training, mitigated the potential for developing debilitating and long term psychological symptoms when a Taser-related death occurred.

This study expands the concept of SIT and has the potential to foster social change from the perspective officers need to be better prepared for the mental processes associated with Taser use and Taser-associated deaths. The study may have implications

for social change from the premise that Taser training to be legally sufficient, it must include stress, decision-making, and shoot-don't-shoot scenarios (*Tuttle v. Oklahoma*, 1985). Implications for police psychologists involves the need for development of mental health components to be included in modalities of CED training, which follow the concept of stress inoculation training. In addition, findings from this study could foster a better understanding of the law enforcement officers' mental health needs with respect to Taser training, as well as professional development.

Summary and Transition

The gap identified in the literature was that there was no research which addressed the psychological impact of Taser deployments in law enforcement officers. This study sought to answer whether the conductive energy device training received by officers, mentally prepared them for negative citizen outcomes. The research focused on the "lived experiences" of officers having used a Taser. I sought to understand the mental processes which took place when an officer chose a less-lethal option resulting in negative citizen outcomes. This study may affect Taser training modalities and agency policies.

Chapter 2 presents a comprehensive literature review of the studies which relate to the known effects of conductive energy devices on the human body, including citizen injuries, and officer injuries. Also included is an overview of the Taser and an explanation of resilience training. Chapter 3 provides an overview of the methods employed in the study, including the research design, the population, data collections procedures, and data analysis plan.

Chapter 4 provides a description of the research setting, data collection methods used, the population and sample, data and observations, analysis of data, emergent themes, and a summary of findings. Chapter 5 presents a discussion, interpretation of findings, limitations of the study, recommendations for future research, and the implications for social change.

Chapter 2: Literature Review

The purpose of this study was to explore and understand the mental, physical, and emotional aspects of utilizing a CED in law enforcement officers. Chapter 2 presents a comprehensive literature review of the studies which to date, have examined the effects of conductive energy devices on the human body, injuries to citizens and officers, the guidelines and policies for Taser use, a discussion of resilience training, and a chapter summary.

Overview of Content

This chapter provides an overview of the existing empirical literature regarding CEDs. Tasers were first tested using dogs and swine and when no significant effects were found, researchers began testing the devices on humans. The research on the effects of Tasers on humans remains limited, and that which exists becomes redundant; therefore, only research conducted within the last 10 years is included in this review.

Chapter 2 is divided into eight comprehensive sections. The first section describes an overview of the chapter. The second section provides the methods used in the literature search. The third section explains the underlying theoretical foundation of this study. The fourth section presents a literature review including police use of force, police officer injuries, citizen injuries and deaths, and an explanation of excited delirium. Section 5 describes the CED weapon, guidelines, and policies for using the CED. The sixth section is a review of past literature on animal studies using the CED. Section seven is a review of the medical findings of CED deployments on humans. The eighth and final

section is a discussion of resilience and stress inoculation training (SIT), and a chapter summary.

Methods used in Literature Search

The Walden University library was utilized in the search for relevant literature using the following keywords: law enforcement, police use of force, and less-lethal-force, less-lethal technology, nonlethal weapons, conductive energy devices, conductive energy weapons, and TASERS. Literature searches were conducted in twelve databases including ProQuest Criminal Justice, Sage Premier, Military and Government Collection, Homeland Security Digital Library, Academic Search Complete, Science Direct, ProQuest Central, Psych Info, and Sage Premier. While there was an abundance of literature which addressed stress training in military predeployment and combat scenarios, there was a distinctive gap in the amount of scientific studies related to investigating stress training in law enforcement venues.

The articles that did not specifically address the effects of CEDs and articles which did not contain the keywords in the headings and subheadings of the studies were eliminated. Special attention was given to the psychological impact of CED use, the effects of CEDs on the human body, and CED training. Articles found relevant were then printed and placed in labeled file pockets for review. Another method included searching the index on Tasers at ww.ecdlaw.info/CEW_Index, which produced a list of 680 articles, and a list of 147 articles found at ww.ci.berkeley.ca.us/...Tasers%20Bibliography%20of

%20147. Articles not in the English language and articles that were not peer reviewed were immediately eliminated. Articles involving citizen and officer injuries, citizen deaths, background research on the physiological effects of Tasers, and stress inoculation training were afforded special attention.

Conceptual Framework

As the deployment of American soldiers to foreign countries continues, so too, have the physical and psychological impairments in the soldiers returning from other countries. The Mental Health Advisory Team (MHAT) reported 7-21% of the total soldiers returning from Iraq and Afghanistan met the criteria for major depression, post traumatic stress disorder (PTSD), or anxiety disorder. Between 2000 and September 2010, 66,934 combat veterans were diagnosed with PTSD, indicating at least 20% of all veterans can be expected to develop PTSD or major depression (Taylor, Schatz, Marino-Carper, Carrizales, & Vogel-Walcutt, 2011). This has resulted in a current emphasis to prevent psychological distress in soldiers. Stress tolerance training programs are being directed towards developing resistance skills to improve tolerance in high stress environments, such as predeployment and combat (Taylor et al., 2011).

The Marine Corps defines resilience as a mental toughness or tolerance, essential to accomplishing the competencies required of Marines (Taylor et al., 2011). Resilience was operationally defined as the ability to endure, recover from, and adapt to stressful events. The United States military forces use various forms of toughening soldiers before deployment, though few programs have been empirically tested for effectiveness (Taylor et al., 2011).

Stress tolerance can be learned with resilience training or stress inoculation training (Grossman, 2008; 2009). Resilience training is formulated to develop coping mechanisms through education and repetitive exercises (Meichenbaum, 1996). On the other hand, stress inoculation exposes the trainee to high risk stressors simulating real world environments to promote development of habitual behaviors and confidence in handling acute stress with learned behaviors and coping strategies (Taylor et al., 2011). The question which arose was whether stress inoculation occurred when officers received a Taser deployment during training?

Increased combat and policing actions by the United States in Iraq, Afghanistan, and other surrounding countries, exposes our military to extreme stressors and trauma that are causing high numbers of post traumatic stress disorder diagnosis in soldiers returning from combat (Grossman, 2009; McLay et al., 2012). However, research showed the psychological capacity of dealing with stress and trauma can be altered by building resilience with several forms of training.

This study was conducted from the perspective that if there are psychological effects in law enforcement officers from using Tasers, changes in training modalities might benefit from including stress inoculation training segments.

Police Use of force

Research shows police rarely use firearms and lethal impact, deferring to less-lethal force, such as restraint and pain compliance methods to subdue resistant subjects (Sousa, Ready, & Ault, 2010; Terrill & Paoline, 2012; White, 2007). The U. S. Bureau of Justice Statistics indicates police use force in 1-2% of encounters with citizens

(Alpert & Dunham, 2010). Policy on the continuum of force recommends the decision to use force and the option of whether to use lethal or less-lethal force should be based on the danger or resistance posed by the citizen. The goal is for police to use the least amount of reasonable force necessary to subdue resistant citizens (Alpert & Dunham, 2010).

Alternatives to lethal force began with the innovation of less-lethal-force options in the 1920s. Tear Gas grenades were used to control crowds. The tear gas pen-gun was developed to control resisting suspects, but was discontinued due to serious eye injuries. Chemical Mace was used from the 1960s to the early 1980s, as an alternative to deadly force. However, secondary contamination from the use of Mace lead to the development of pepper spray, which resulted in citizen injuries and secondary exposure to law enforcement officers 2008). This began a search for other less-lethal use of force options for officers to use in practicing the continuum of force.

Options for current day policing include verbal communication, mitigating violence with appropriate training, and interpersonal communication skills to help officers negotiate with suspects as a means of reducing the need for use of force. CEDs are the most recent addition to the continuum of force to lessen injuries. Law enforcement agencies have been using conductive energy devices (CEDs) as a less-lethal use of force, since the late 1970s (Terrill & Paoline, 2012). The most widely used CED currently in use by law enforcement agencies is the Thomas A. Swift Rifle (TASER; Sousa, Ready, & Ault, 2010; White, 2007).

The impact of Tasers on police use of force decisions was examined to determine to what extent officers would use a CED in comparison to other non-lethal weapons. Findings indicated LEOs were more likely to use a CED as an alternative to other non-lethal weapons and less likely to use a firearm in potentially lethal situations (Sousa, Ready, & Ault, 2010). Hands and weapon based tactics were found to be a secondary choice (Paoline, Terrill, & Ingram, 2012).

The relationship between CED and citizen injuries, and the severity of injuries was considered in another study. Researchers analyzed use of force incidents (n = 14000) using CEDs across 7 agencies. Only agencies with consistent use of force policies and reporting procedures for 2 consecutive years were included. Individual cases (N = 2600) were scrutinized for injuries received in physical force tactics or weapon use. Findings indicated an increased risk between the use of CEDs and injuries, and suspects were more likely to be injured when officers used a CED than cases not using CEDs (Taylor & Woods, 2010).

However, the use of CEDs in comparison to oleoresin capsicum, which during the mid-1990s was labeled by Amnesty International as a form of torture to which citizens should not be subjected (Alpert & Dunham, 2010), has been examined for purposes of weighing the prevalence of injuries to officers and civilians (MacDonald, Kaminski, & Smith, 2009; Paoline, Terrill, & Ingram, 2012). MacDonald and associates studied a population of police departments (N = 12), and use of force incidents (n = 24380) between 1998 and 2007. Quantitative analysis showed use of physical force increased the likelihood of injury to officers and suspects. In contrast, use of less-lethal weapons

decreased the likelihood of injury to suspects. Officers were not affected by CED use (Paoline, Terrill, & Ingram, 2012), but injuries to both citizens and officers increased slightly when using oleoresin capsicum spray or a combination of CED and other forms of force (MacDonald, Kaminski, & Smith, 2009; Paoline, Terrill, & Ingram, 2012; Sousa, Ready, & Ault, 2010).

Although CEDs have been shown to cause less injuries to subjects and law enforcement officers, compared to other less-lethal use of force items (MacDonald, Kaminski, & Smith, 2009; Paoline, Terrill & Ingram, 2012; Sousa, Ready, & Ault, 2010), public perception remains negative and it has polarized controversial opinion about the continued use of CEDs, officer and citizen injuries, and potential deaths.

The perception of officers as to the use of CEDs and their concern about the public's view of CEDs was explored in three clearly stated research questions by Stinson, Reyns, and Liederbach (2011). The purpose of their research was to investigate how police officers perceived CEDs and how they interpreted the controversies surrounding Tasers. Other goals were to determine whether officers were comfortable using CEDs as weapons, and how it impacted their jobs. Exposure was described as a high voltage, low amperage shock, delivered by two prongs producing temporary paralysis and physical pain by freezing the muscles (Stinson, Reyns, & Liederbach, 2011).

In the first phase, qualitative data was collected through telephone interviews in the states of Ohio and Idaho. In the second phase, researchers conducted in-depth interviews of training officers in the two states. Forty departments were contacted for participation, but only a little over half participated, ($N = 27$). Categories of data included

main benefit of the Taser, effectiveness in 7 emergent situations, 6 situations where using a Taser was ineffective, and 6 categories of drawbacks to utilization of Tasers (Stinson, Reyns, & Liederbach, 2011).

Discussion topics with the officers included perceptions formed by the misinformed public, the sensational media, and activist groups with an agenda. The inductive approach of this study allowed researchers to delve into how officers make sense of less-lethal use of force policies and the public's perception of Taser use. Results indicated that while officers are aware of public perception and the controversies surrounding Taser use, the positive aspects outweigh negative media and negative public perceptions (Stinson, Reyns, & Liederbach, 2011). Ultimately, the use of CEDs was considered safe by officers when compared to other less-lethal weapons and the injuries they caused the officers and citizens.

Police Officer Injuries

MacDonald, Kaminski, and Smith (2009), inquired into the extent of officer injuries before and after implementation of CED use at the Orlando Police Department over a 108-month interval, and the Austin Police Department over a time-frame of 60 months. They found officer injuries at the Orlando Police Department decreased by 62%, and in Austin the injuries decreased by 25%. Researchers compared the use of CEDs to pepper spray and hands-on force using a timed-series analysis to determine the likelihood of officer injuries and found CEDs decreased the probability of officer injuries (MacDonald, Kaminski, & Smith, 2009).

In a similar study, injuries reported by seven police departments using CEDs were compared to injuries reported by six police agencies not using CEDs. The authors concluded the agencies using CEDs had less officer injuries than agencies who did not issue CEDs to their officers. Although the variables of citizen resistance, types of force, and analytical models varied between studies, the authors concluded the agencies using CEDs had less officer injuries than agencies which did not issue CEDs to their officers (MacDonald, Kaminski, & Smith, 2009; Taylor & Woods, 2010).

To clarify the relationship between citizen injuries and the severity of the injuries caused by deployment of CEDs, Terrill and Paoline (2012) questioned whether CED shocks caused more injuries to citizens than other forms of less-lethal use of force options. Data on use of force incidents were collected from a national multi-agency to assess the impact of CEDs on citizen injuries. Data was analyzed on 14,000 use of force incidents, across seven agencies, with over 2600 CED deployments. CED cases were compared to hands on and weapon-based tactics (Alpert & Dunham, 2010; Terrill & Paoline, 2011). Multivariate models were employed to assess the role of the CEDs in citizen injuries, and the severity of the injuries sustained, when only a CED was utilized compared to when it was used with other types of force. Findings indicated citizens were significantly more likely to be injured in cases where CEDs were utilized with fewer severe injuries. Most reported injuries were considered minor and there were fewer severe injuries than when other types of force were used (Alpert & Dunham, 2010; Terrill & Paoline, 2011). Yet, the CED-related death toll continues to rise.

Citizen Injuries and Deaths

In 2004, more than 70 deaths were reported by Amnesty International as being associated with CEDs. Amnesty recommended law enforcement cease use of the device until research could be conducted to investigate the effects of CEDs on humans. Amnesty called for law enforcement agencies to limit their use and to provide detailed reports for each activation (Terrill & Paoline, 2012).

Amnesty's demands and the initial case reports of 16 deaths associated with CEDs between 1983 and 1987, were investigated by Kornblum and Reddy (1991) to determine whether CEDs were directly responsible for the deaths. Autopsy reports determined 11 of those cases were a result of drug overdose, 3 died from gunshots, and 1 had a history of cardiac disease, indicating CEDs had contributed to the deaths, but were not solely responsible for causing the deaths. Another review of 218 emergency room patients from 1980 to 1985 showed 76% of the cases involved individuals displaying uncontrollable and strange behavior, 96% were men and 86% had a history of PCP drug use (Bozeman, 2004). Strote and Hutson (2006) concluded in a study of 71 CED-related deaths that excited delirium was directly and indirectly related to 57% of the deaths (C. M. Sloane, personal communication, March 28, 2014).

Subsequently, 118 deaths were investigated wherein CEDs had been deployed. Out of 60 responding law enforcement agencies, 77 deaths resulted from CED applications (Vilke, Johnson, Castillo, Sloane, & Chan, 2009). Data showed of the 77 deaths, 95% were men, 46% white, ages ranged from 31 to 40, 26% had been armed with a weapon ranging from a firearm to cutting weapons, and 25% had a blunt force weapon.

Seventy-five percent of subjects exhibited noncompliance, 69% displayed severe aggression, and 51% presented mild aggression (Vilke, Johnson, Castillo, Sloane, & Chan, 2009).

In the same vein, researchers enlisted physicians to review police records from six law enforcement agencies and medical records of each X26 or M26 CED incident (Bozeman et al., 2009). In a 36-month period, CEDs were used on 1201 subjects. Researchers classified injuries as mild, moderate, or severe. Results showed in 1198 subjects, mild or no injuries were reported and 83% of mild injuries were puncture wounds caused by the weapon's darts. Three subjects received significant injuries, which included two intracranial injuries sustained from falls, one suffered rhabdomyolysis, and two subjects died while in police custody. Medical examiners found no causal link to the CED in either of the two deaths (Bozeman et al., 2009).

Although, studies showed unexplained deaths at a rate of < 9.09% (5-8) after CED use, media reports continue to highlight episodes of CED related deaths. Recent media reports include accountings of Taser-related deaths, such as "Police give Taser-death details" in the Orlando Sentinel, wherein a man died two days after receiving a Taser deployment. A Google search of recent CED deployments by LEOs includes a New Jersey "Cops first use of TASER subdued a schizophrenic woman;" "Elderly man punches Cop in face;" "A Virginia deputy deployed the TASER on combative suspect;" "California Cop TASERS unruly man armed with knife;" and, "An armed suspect attempts escape, TASERed during stop." These and other reports of CED deployments

continue to generate controversy about potential injuries to citizens and the physical impact on humans (Terrill & Paoline, 2011).

The National Institute of Justice reported as of December, 31, 2011, there were 1.52 million deployments (NIJ, 2011). While reports of citizen deaths associated with CED shocks are considered rare by law enforcement, by the year 2011, approximately 400 arrest-related deaths occurred in association with CED incidents (White, Ready, Riggs, Dawes, Hinz, & Ho, 2012). Amnesty International continues to call for a moratorium of CED use and further research into incidents of multiple activations, and the use of CEDs against mentally ill persons, pregnant women, children, and the elderly. Other specific questions regarding police use of CEDs include the level of threat of the incident, the aggressiveness of the citizen, and medical aspects of receiving a discharge.

White et al., (2012), attempted to address the controversy by conducting a descriptive analysis of all CED arrest-related deaths using a data triangulation method to converge information from two sources. They combined media report archives and medical examiner reports of 392 Taser arrest-related deaths. The combined 213 cases were reviewed to produce data about the nature and characteristics of the incidents, over the entire time-frame from 2001 through 2008, and in a 2-3-year longitudinal study (White et al., 2012).

Thirty-seven states reported incidents of Taser related deaths during the study time-frame. California (n = 75), Florida (n = 57), Texas (n = 32) and Ohio (n = 20) experienced the highest number of CED related deaths. California, Florida, and Texas employed the largest number of sworn officers, commensurate with the highest

population and highest number of violent crimes of the 37 states participating in the study (White et al., 2012). The four states mentioned above also had the highest number of CED and cartridge sales.

Results suggested the jurisdictions experiencing the highest number of arrest related deaths were the cities with the highest population and the largest number of CED sales. The Harris County Sheriff's Department and the Phoenix Police Department experienced six deaths and the San Jose and Las Vegas Police Departments had five deaths each. Data showed 14% of subjects were already in custody when an officer deployed the CED. In most events, other officers were at the scene, and other citizens were present in 41% of the cases. In 36.5% of the cases the CED was deployed only once, with two activations in 26.0%, 3 to 5 activations occurred in 25%, and in 10% the average number of discharges were 6, averaging 2.91 activations across all incidents. Where details on the duration of the shocks were available, data showed duration was more than 5 seconds in 57 of 89 cases (White et al., 2012).

Most suspects were male with a mean age of 35.9, 20% were mentally ill, 53.5% were intoxicated or high, in two-thirds of cases suspects had used cocaine and 18% were under the influence of methamphetamine, 14% were armed with a weapon, and continued to resist after receiving the shock. Medical examiners found 90% of the bodies they examined contained illicit drugs or showed chronic drug use. The cause of death reported by both data sources in 75% of the cases was illicit drugs (cocaine), heart related problems were cited in 30.5%, and 23.8% suffered from excited delirium. Only two of the cases were linked to the Taser discharge as the primary cause of death (White,

2007). Researchers found the extent of aggression was related to the high levels of dopamine in the brain when victims were shot with a Taser (Roach, Echols, & Burnett, 2014), causing high inducement for critical incidents to occur.

These figures were consistent with early accountings of death related CED exposures. Drug use and mental illness persistent in current reports of Taser-related deaths. In contrast, the longitudinal study showed the level of suspect resistance had lessened over time and even though suspects had increased their levels of aggression, officers had made few changes in the types and level of force used (White, 2007), exception when force is used against suspects displaying symptoms of excited delirium.

Excited Delirium

The medical and psychiatric societies were not consistent in their diagnosis of excited delirium (ED), in that the condition is not fully understood and it is not recognized in the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-IV-TR*; APA, 2000) or the *International Classification of Diseases of the World Health Organization* (Takeuchi, Ahern, & Henderson, 2011).

However, physicians have identified certain clinical symptoms they believe are common in ED cases. Medical reports specify suspects displaying a state of extreme mental and physical excitement can be diagnosed with ED if they also present with an elevated temperature (hyperthermia) and a combination of physical and behavioral characteristics. Common symptoms included delirium (acute confusion, disorientation, fear, panic, shouting, violence), psychotic behavior, hallucinations, paranoia, acute aggression, pain tolerance, unusual strength, and extreme flight or fight response,

followed by cardiac arrest (Roach, Echols, & Burnett, 2014; Takeuchi, Ahern, & Henderson, 2011; Vilke et al., 2012).

Initially, in 1849, excited delirium was described as Bells' Mania, a diagnosis in which patients presented with fever, hallucinations, and acute agitation, followed by death. When psychotropic medications appeared on the market in the 1950s, reports of Bells' Mania decreased and begin to rise again in the 1980s, when cocaine became more prominent (Roach, Echols, & Burnett, 2014). It was at that time, reports began to appear about deaths of mentally ill or intoxicated persons that had been restrained displaying symptoms of acute aggression, tolerance to pain, and hallucinating prior to their deaths.

Since then, reported cases of excited delirium have become more common in media reports (Roach, Echols, & Burnett, 2014). The issues that arise with the use of illicit drugs and excited delirium are outside the scope and purpose of this study. Therefore, in the interest of brevity and clarity, this study does not include a section on the effects of illicit drugs on the brain and their connection to symptoms of excited delirium.

The Conductive Energy Device

In 1999, TASER International cornered the market by introducing the M26 Advanced TASER, and in 2003, it produced the Taser X26. The X26 is currently the most widely used CED in law enforcement venues. The Taser projects two darts connected by wires to the device, delivering a 50,000-volt shock in 5-second intervals

from up to 35 feet for the duration the trigger is kept pressed. Voltage is projected in stun or drive mode (Alpert et al., 2011; Pasquier, Carron, Vallotton, & Yersin, 2011).

In stun mode, the device is applied directly to the subject. In drive mode, two darts are projected into the subject by a nitrogen cartridge located in the handle of the weapon. The electrical discharge incapacitates the subject by overriding the nervous system and causing muscular disruption (Paoline, Terrill, & Ingram, 2012). LEOs are required to follow policy and TASER International's recommendations as to the use of CEDs as a less-lethal use of force option, because it reduces the likelihood of injuries to resistant subjects and to the officers. The U. S. Government Accountability Office reported Tasers are the less-lethal weapon of choice by officers. In 2005, 140,000 Tasers were in use by police agencies (Sousa, Ready, & Ault, 2010), and by the year 2008, the National Institute of Justice reported 11,500 agencies issued a total of 260,000 CEDs to officers (Paoline, Terrill, & Ingram, 2012).

CEDs were first introduced to law enforcement venues when Jack Cover responded to airplane hijackings with the invention of the Taser in the 1960s. His objective was to develop an electrical device that could be used in place of firearms to prevent airplanes from being hijacked, while keeping passengers safe. The device proved to be an alternative to firearms and became available commercially in 1974 (Pasquier, Carron, Vallotton, & Yersin, 2011). The emergence of CEDs in law enforcement venues was a result of the need to find alternatives to physical and lethal-force with fewer and less serious outcomes (Paoline, Terrill, & Ingram, 2012). Officers now have the option of

using Tasers as alternatives to deadly force, in addition to less-lethal weapons, such as batons and chemical sprays (Alpert et al., 2011).

The New Generation X3 TASER

Taser International recently introduced their newest conductive energy device, the X3. The X3 and X2 were developed to overcome the limitations of the X26, in that the X26 contains only one cartridge that can be deployed only once, before it is reloaded for subsequent deployment. The X3 was designed with a different electrical circuitry and multiple cartridges that can simultaneously deploy 3 sets of probes (Ho et al., 2011). The X2 is designed with a backup shot, a smaller body, and a larger handle.

In the first version of the X3, trials included embedding 2, 3 or 4 probes during 10 second exposures into 8 volunteer subjects, as part of their CED training. Researchers collected vital signs, echocardiograms, and serum troponin values before, during, and after receiving a deployment (serum troponin is the protein found in the heart muscles that help it contract). One subject experienced a brief cardiac capture (temporary invasive pacing) after application of 2 probes. Testing was discontinued and the device was sent back to manufacturing (Ho et al., 2011).

The device was redesigned, and the second version of the X3 was tested on 42 officers in CED training. Findings showed the X3 had no significant cardiovascular effects, when used in multiple probe application formats as intended (Ho et al., 2011; Ho, Dawes, Change, Nelson, & Miner, 2014), and no respiratory, metabolic, and neuroendocrine effects (Ho et al., 2011). The X3 is currently being produced and used,

but costs are prohibitive and are thus only used by SWAT teams. The X3 has since been discontinued due to design flaws.

The newest Tasers are the Smart Weapon models X2 and X26P. The X2 features a backup shot with an arc warning for accuracy and effectiveness. The X26P is a single shot device with a larger handle and a smaller body, designed to replace the X26 (Taser International, 2016).

CED Guidelines and Policies

The legitimate use of Tasers by police officers continues to be a complicated issue plagued by inconsistent guidelines and policies. There is no consensus among agencies as to who should be authorized to carry a CED, in what circumstances officers are authorized to discharge a Taser, and training varies from agency to agency and throughout the states. Alpert and Dunham (2010) conducted a four-component national study in conjunction with the Police Executive forum (PERF), in 2006. The objective was to inspect officers and trainers reports of CED use, citizen and officer injuries; and, to scrutinize agency policies and guidelines, with the goal of generating policy and training recommendations.

The sample consisted of municipal, county, and state agencies (N = 518). The agencies were surveyed for data that would answer questions as to when CEDs should be deployed, how often officers should deploy the device, and the duration of deployments. The data showed 47.1% of the agencies assigned CEDs to officers and three-fourths of the agencies deployed CEDs between 2004 and 2006 (Alpert & Dunham, 2010).

The second section of the survey was designed to collect data about CED use of force situations using varied levels of resistance and officers' behavioral responses. Agencies were asked under what circumstances officers would be authorized to use a CED given five scenarios. The first scenario involved a citizen that would not follow the officers' commands, but did not resist. Agencies responded that 29.6% would allow the use of CEDs in probe mode and 44.9% would authorize chemical weapons. In the second scenario, a citizen being cuffed pulled away from the officer for approximately 15-20 seconds. Agencies (58.7%) responded they would allow the use of CEDs in probe mode and 82.5% would allow the use of chemical weapons (Alpert & Dunham, 2010).

In the third scenario, the citizen ran away from the scene, looking back, while continuing to run. Agencies responded 73.8% would authorize CED use in probe mode, 68.8% in drive stun mode, and 85.0% of the agencies responded they would authorize chemical sprays. In the fourth scenario, the citizen threatened the officer. Slightly fewer than ninety-five percent (94.8%) said they would allow CED use in probe mode, and the majority (98.6%) of agencies responded they would allow chemical weapons. In the fifth case, the suspect attempted to punch the officer with his fists. Slightly more than ninety-seven percent (97.1%) of the agencies reported they would allow stun drive mode, and 99.0% would allow chemical weapons (Alpert & Dunham, 2010).

On questions regarding the weight of CEDs in probe mode on the continuum-of-force, 87.9% of the agencies responded CEDs were included in policy and training, 57% categorized the CED on the same level as chemical sprays, 36.1% placed the CED higher on the continuum of force, and 46.6% responded they placed CEDs

lower than punches, with 33.1% placing the CED on a higher level of force than punches. Compared to other types and options of force, 26% of the agencies labeled CEDs as a low-level use of force method, 64% midlevel, and 10% considered it a high level of force. Most agencies responded they imposed limitations as to the number of CED deployments, 16.5% restricted the duration of discharge, and 5.6% placed restrictions on the number of activations, and most restricted CED use to three activations (Alpert & Dunham, 2010).

In the first of its kind, the Police Executive Research Forum (PERF, 2005), conducted a study to investigate the training requirements of law enforcement agencies. PERF surveys ($N = 518$) indicated they required officers to receive between 0 to 40 hours of CED training, with most (28.8%) requiring 4 hours and (46.6%) requiring 8 hours of training to be authorized to carry the device. Most agencies required a written exam (96.5%), and a practical exam (94.1%) for certification, and 63.7% required officers to experience an activation during training. Slightly lower than ninety-seven percent (96.75%) reported a restriction of three activations, 16.5% restricted length of activation, and 99.6% restricted discharges to 5 seconds, with 5.4% restricting total length of discharge (Alpert & Dunham, 2010).

The authors recommended both OC spray and CEDS should continue to be authorized as less-lethal alternatives to active resistance, which would require 20% to modify polices on the CEDs' continuum of force levels. Authors suggested 60% stipulate policy and training procedures for officers in the event of suspect resistance to proffer protection of 4th Amendment rights (Alpert & Dunham, 2010).

Pursuant to reports from the Police Executive Research Forum, CED training consists of 4-6 hours of classroom training, and 63.7% of agencies required officers to experience a CED discharge (Alpert & Dunham, 2010; Alpert, Smith, Kaminski, Fridell, MacDonald, & Kubu, 2011). Sheriff Trochesset of Galveston County indicated the existing CED training does not include sensitivity or resilience training that prepares the LEO for the potential of a citizen death while in custody (personal communication, January 23, 2015).

In addition, officers must follow regulations as set out by the courts' decisions that force should only be used as is "reasonable and necessary," and must meet the three-prong test as set out in *Graham v. Conner* (1989). In the *Graham* case, an officer's use of force is weighed by considering the nature of the offense, whether the suspect posed an immediate threat to the officer or the public, and whether the suspect was trying to flee or evade arrest.

A second case which affects an officer's use of a CED is *Beaver v. Federal Way* (2007), which addresses the use of multiple CED activations. In the *Beaver* case, the officer discharged the CED five times and the courts ruled the fourth and fifth activations were excessive because the situation did not meet the use of force three pronged "reasonable and necessary" test in *Graham v. Connor* (1989). Another problem officers face when using a CED, is the consideration of what a Taser discharge might do to the recipient.

The Effects of Conductive Energy Devices

Animal Studies

Amnesty International, the American Civil Liberties Union, the Southern Christian Leadership Conference, and media reports of deaths associated with TASERs have raised considerable opposition due to the unknown effects of CEDs. Demand for research by the public generated studies to address questions about the devices effects, safety, and medical issues (DeAngelis & Wolf, 2013; MacDonald, Kaminski, & Smith, 2009; Ready, White, & Fisher, 2008; Stinson, Reyns, & Liederbach, 2011; White, Ready, Kane, & Dario, 2014).

In addition, researchers are aware that electrical injury to humans may induce ventricular fibrillation. In fact, cardiovascular studies show when an electrical discharge from a CED is believed to cause a lethal dysrhythmia (also known as VF), immediate death can be expected (Vilke et al., 2011). Thus, McDaniels and Stratbucker (2002) began studies using dogs with the Advanced Taser M26. Five dogs weighing 54 pounds were anesthetized and underwent a total of 236 discharges. Results showed no recorded VFs were found (C. M. Sloane, personal communication, March 28, 2014).

McDaniel et al., (2005) established a VF protocol and safety index using nine pigs weighing 50 pounds. The highest discharge was measured after five exposures of the CED current. The protocol was applied to each pig to estimate VF threshold and safety index. The resulting safety index was the ratio of the VF threshold to the standard discharge level output from the CED. The safety index was designed to determine the lowest discharge that would induce VF and the highest discharge that could be applied

without inducing VF. The resulting VF threshold was the average of the lowest and highest discharge. Findings showed a high safety margin for VF in swine (mean weight of 49.9-60.8 kg range), indicating discharge levels for CEDs have an extremely low probability of inducing VF (C. M. Sloane, personal communication, March 28, 2014).

In contrast, Dennis et al., (2007), tested 11 pigs to explore whether an extended electrical discharge from a Taser X26 might cause ventricular fibrillation. Pigs were subjected to two-40 second Taser discharges while anesthetized with ketamine and xylazine and while being monitored prior to exposure in 5, 15, and 30second intervals. An electrocardiogram was used to monitor cardiovascular function, and blood pressure, troponin, blood gases, and levels of electrolytes were monitored at 60 minutes, and 24, 48, and 72 hours after exposure. Two pigs suffered acute ventricular fibrillation after exposure to the Taser current, causing immediate deaths. No acute dysrhythmias were noted in the surviving pigs. Researchers concluded that a prolonged discharge from the Taser X26 can cause heart rhythm disturbances which can raise ventricular stimulation and cause potential dysrhythmias and death (Dennis et al., 2007).

Physical and Medical Effects in Humans

Over the past few years, media coverage of citizen injuries and deaths associated with CEDs has instigated organizational and public critique of law enforcement policies regarding the decision to use CEDs to subdue citizens. A limited body of research has examined the relationship between CEDs and citizen injuries. Scientific and medical empirical research on the physical risks of Tasers on humans indicates there are no significant cardiovascular (Bozeman et al., 2009; Ho et al., 2011; VanMeenen et al.,

2013), physiological (Vilke et al., 2011), or respiratory (Ready, White, & Fisher, 2008; Vilke et al., 2011) effects after receiving a Taser shock. However, Tasers can cause significant injury to the eyes, throat and genitals, and repeated use can cause seizures. A review of medical findings using human volunteers follows.

Physical and Muscular Effects

The effects of CEDs on the human body vary dependent upon the individual's health, the physical location of the CED darts, the distance between the darts, the distance from which the weapon is deployed, and the duration of the current (Dawes, Ho, Reardon, & Miner, 2010). It is known that a CED discharge incapacitates through skeletal muscle disruption (Jauchem, Sherry, Fines, & Cook, 2006), and can cause the large muscle groups to compress, or induce spinal fractures like those caused by seizures. Although, there are no published reports of seizures induced by CEDs. Other physical effects include temporary puncture wounds in the form of skin penetration by the darts, arm and shoulder injuries, and facial trauma from falls occurring during CED discharge (Bozeman, Teacher, & Winslow, 2012).

While a CED discharge will cause significant pain in conjunction with severe muscle contractions in the victim, there have been no reported incidents of harmful effects on the brain or central nervous system (C. M. Sloane, personal communication, March 28, 2014). Subjects report they remain alert, and can recall details of the event before, during, and immediately after receiving a discharge. Other physiological effects include impaired function in subjects with cardiac defibrillators and pacemakers, safety

of use with pregnant women, the elderly, and children (Bozeman & Winslow, 2004). The effects of the Taser remain questionable due to inconclusive findings.

Physiological Effects in Humans

In response, Taser International, Inc. (TI) engaged Jeffrey Ho and his team from Minnesota, to examine the physical effects of CEDs on humans. Ho et al., (2008), conducted a study to examine what a 5-second discharge from the Taser-X26 might have on human volunteers (n = 65) at a training course sponsored by TI. Pre-tests included blood samples, which were used as controls for heart and skeletal muscle damage, evidence of electrolyte fluctuations, a kidney function. Thirty-two participants were monitored before and after the CED discharge with an electrocardiograph. Blood tests were collected after the discharge, and at 16 and 24 hours after the CED deployment. Results showed no abnormal cardiac rhythms (C. M. Sloane, personal communication, March 28, 2014), no damage to cardiac cells, or changes in potassium levels (hyperkalemia), which is believed to cause death after CED exposure (Bozeman, Barnes, Winslow, Johnson, Phillips, & Alson, 2009; Bozeman & Winslow, 2004; Dawes, Ho, Reardon, & Miner, 2010; VanMeenen et al., 2013; Vilke et al., 2011).

Cardiovascular Function

Bozeman et al., (2009) followed that research by exploring whether the TaserX26 would produce cardiovascular impairment. The authors hypothesized a CED exposure would not produce dysrhythmias; although, exposure might produce a hypertensive/tachycardia response in heart rate with a dose-dependent charge. Volunteer police officers (n = 20), with a mean age of 34 years, who participated in agency training

for using the TASER X26, were exposed to a total of 84 Taser shocks in 5, 3 and 1 second intervals (Bozeman et al., 2009).

The results showed participants did not experience irregular heartbeats (dysrhythmias). The average heart rate increased significantly by 10.9 beats per minute and blood pressure increased from 138.6/82.8 at rest to 145.8/85.6 after a 5 second CED discharge. Limitations included small size, population of volunteers, all were young men, and in good health. Validity and reliability were diminished due to manual measuring of cardiac intervals (Bozeman et al., 2009).

Moreover, Ho et al., (2010) published a series of articles from 2010 to 2014, encompassing research directed at the human cardiovascular effects of Taser X-26 deployments and prolonged applications into the chests of humans. The findings showed electrocardiogram (ECG) readings were normal in every participant ($n = 25$) after prolonged CED applications, indicating accusations of CED induced dysrhythmias in non-resting humans were invalid (Ho et al., 2010; 2011; 2014).

To address the allegation in prior animal studies, that an electrical discharge from a CED captures the heart muscles, Dawes, Ho, Reardon, and Miner (2010) tested the Taser X26 discharge using probes on 10 human subjects from 7 feet. Electrocardiograms were performed before, during, and after the CED deployment. Findings showed the electrical current did not capture the muscular tissues of the heart when used in probe mode (Dawes, Ho, Reardon, & Miner, 2010).

In another study, using volunteer Sheriffs' officers in San Diego County, California, Vilke et al., (2011) monitored the cardiac, respiratory, and physiologic stress

of the TASER X26 in resting subjects after a 5 second exposure and after physical activity. Volunteers (n = 32) were between the ages of 18 and 60 years of age, could not be pregnant, and had to weigh more than 45.5 kg with a body mass index of more than 18 kg. In addition, subjects could not exceed a baseline pulse rate of 120 bpm or systolic or diastolic blood pressure greater than 150 or 90nm Hg, and had to exhibit a normal 12-lead ECG. Subjects underwent cardiac screening with the Physical Activity Readiness Questionnaire (PAR-Q). None of the subjects reported recent illicit drug use, or positive urine screen for illicit drugs (Vilke et al., 2011).

In the second phase, only subjects (n = 22) between the ages of 18 and 45 years of age were included and their baseline systolic or diastolic blood pressure could not be greater than 160 or 100 mm Hg (Vilke et al., 2011). Subjects were asked to perform a cycling protocol with the goal of reaching 85% of the predicted heart rate maximum. The CED discharge was fired into the backs of subjects between the shoulder blades. Findings showed no demonstration of clinically significant changes to ventilation or blood parameters of physiologic stress after a 5- second exposure to resting subjects or after physical exertion (Vilke et al., 2011).

Bozeman, Teacher, and Winslow (2012), continued their studies of the CEDs effects on the human heart, based on early animal studies that alleged VF occurred in swine while testing a direct CED deployment. They set out to re-examine cardiac function with a sample in field use. Their objective was to investigate whether a CED activation would produce a cardiac reaction through the heart (transcardiac vector) with varied scenarios of the magnitude, direction, and location of the probes on the human

body (Bozeman, Teacher, & Winslow, 2012). Researchers scrutinized CED deployment incidents ($N = 1201$) and found that two-probe impacts had the capability to produce a transcardiac vector in 178 cases, representing 14.8% of all CED uses. Records showed no immediate deaths, suggesting no cardiac dysrhythmias occurred, even when a transcardiac vector was noted. To date, there is no empirical evidence of VF with paired probe impact in humans (Bozeman, Teacher, & Winslow, 2012).

Respiratory Effects

Prior studies inspecting the use of CEDs and cardiovascular function implemented 12-lead echocardiography to measure the electrical activity of the heart (Dawes, Ho, Reardon, & Miner, 2010; Ho et al., 2010, 2011, 2014; Vilke et al., 2011). Van Meenen et al., (2013) questioned this method because the CED is an electrical device exuding an electrical charge, which could interfere with heart function. Therefore, Van Meenen et al., (2013) were the first to use pulse oximetry to determine whether the current discharge from a Taser X26 affects respiration patterns or cardiovascular function. Pulse oximetry was used with volunteer law enforcement trainees ($n = 23$), to monitor heart rate, inspiration, and expiration flow waveforms before, during, and after CED exposure (Van Meenen et al., 2013).

Seventy-eight percent of the participants self-reported they tried to breath during the exposure. Self-reports were verified with flow measured by pneumatic and changes were measured by a thermistor (Van Meenen et al., 2013). Results indicated there was no evidence of cardiac disruption. However, respiration patterns changed, showing volitional breathing was difficult during the 5-second CED exposure and exhaling severely

decreased. No significant change in heart rate was noted before and post CED application (Van Meenen et al., 2013). Voluntary inspiration was severely compromised. Limitations included the shortness of duration of exposure, and small population (Van Meenen et al., 2013).

Cognitive Function

Research on the effects of CEDs on cognitive function are seriously lacking. However, in a pilot study funded by the National Institute of Justice, researchers examined the effects of CEDs on cognitive functioning in trainees at the San Bernardino County, California, police training center ($N = 21$) over a period of two weeks. The focus was to determine whether the methodology, logistics, and testing protocols were appropriate to accomplish their goals of empirical measurement to test cognitive functioning in a population before Taser exposure, 5 minutes after, and 24 minutes after (White, Ready, Kane, & Dario, 2014).

This investigation was based on consistent documentation of the neuro-psychological effects of accidental electrical injury showing deficits in memory, attention, and concentration. Researchers examined whether a CED discharge could affect the mind to the degree the right to waive Miranda Rights was impaired. Recruits underwent memory, concentration, and speed of learning tests 3-4 hours before exposure, 5 minutes after discharge, and 24 hours later (White, Ready, Kane, & Dario, 2014). The goal was to determine whether exposure to the electrical discharge of a CED affected cognitive functioning. Findings showed moderate to large effect sizes suggesting there were memory and concentration deficits 5 minutes after receiving the discharge.

Memory, concentration, and the feeling of being overwhelmed returned to normal baseline within 24 hours (White, Ready, Kane, & Dario, 2014).

The problem with this study was that subjects were not tested 1, 2, 3, or 4 hours after receiving a CED discharge and the question of whether subjects can understand their Miranda Rights at these time intervals remains inconclusive.

Limitations on all human studies included using healthy volunteers that were not violent, struggling, or resistant, intoxicated, or under the influence of drugs or alcohol.

Psychological Impact

Despite existing medical research, up until this study, there were no other known studies, which had examined whether CEDs cause psychological impairment in citizens or officers (Bozeman & Winslow, 2004). Arrest-related deaths that occur as the result of police encounters can have long-term and devastating effects on the police officer. There is a dearth of literature about officer-involved shootings and the psychological aftermath on the officer. However, little was known in terms of understanding the psychological impact of CED utilization in the officers when the situation ends in the unintentional death of the citizen. Moreover, it was not known whether officers experience the same mental processes associated with the decision to use lethal force, when they use a CED as a less-lethal force option.

It is known, police officers acquire resilience training as part of their overall training to prepare them for using guns against citizens, when the situations warrant lethal force (Grossman, 2005). This type of training is used to desensitize officers by experiencing the mental processes of killing before they are involved in actual

altercations (Adler et al., 2013; Grossman, 2005). It is not known whether the resilience training received transfers to situations involving CED related deaths.

Sheriff Henry Trochesett of Galveston County, Texas, says weapons training drills do not include mental conditioning. Instead, moving pop-up targets in the shape of humans are used to illicit automatic reactions with the use of guns (personal communication, January 23, 2015), which serves as operant conditioning (Shaffer, 2002). Operant conditioning is intended to induce stress inoculation and mental preparedness for using guns in life or death situations (Grossman, 2005).

Officers learn when they draw their guns, they can expect a negative outcome, such as serious injury or death. The purpose of weapons training is to mentally-condition the trainee against the instinctive aversion to killing (Grossman, 2005). What is not known, is whether this type of training results in resilience which can mitigate the development of psychological symptoms when a CED shock results in an unexpected citizen death.

Resilience Training

Glenn R. Schiraldi, with the University of Maryland School of Public Health, and owner of Resilience Training International, indicates the skills necessary to accomplish resilience are optimization of brain health and function, critical skills for coping with stress and strong negative emotion and strong character (Schiraldi, 2011). Former Assistant Chief of Police, Vicky King of Houston, Texas, and Sheriff Henry Trochesset of Galveston County, stated these elements of resilience are not being taught during Taser certification training or at police academies (V. King, personal

communication, January 23,2015; H. Trochesset, personal communication, January 23, 2015). It is unclear how LEOs are coping with their decisions to use less lethal force that ends in a death.

In a recent study, three officers, who had used deadly force in the line of duty, were interviewed to explore the officers' experience of using deadly force (Broome, 2014). Participants expressed they had to first, assess the level of dangerousness of the situation, confer with other officers as to the circumstances and the next plan of action. The officers stated the realization an incident may become lethal is instantaneous, and actualization of defensive action is immediate (Broome, 2014). The officers indicated emotional responses after a lethal incident are very intense. They experienced disruptive emotions and thoughts in the aftermath of using deadly force; even though, they had trained well for the day when they might have to shoot a citizen to ensure their safety or the safety of the community. Officers stated they changed as individuals, their lives changed, and their disruptive feelings were not completely resolved (Broome, 2014).

Accordingly, it is unclear how officers are coping with Taser-related deaths. The "code of silence" practiced by police officers dictates a reluctance to admit weakness, feelings and emotions because it is not "macho" (Delattre, 2006). The term macho refers to aggressive masculine pride and actions. However, experts believe the act of killing can be debilitating and life changing. For example, the Frontline Program, on KUHT Channel 8, interviewed several mental health professionals to explore their thoughts about "The Impact of Killing and How to Prepare the Soldier." Jim Dooley, Mental Health Counselor

with the United States Department of Veterans' Affairs mentioned the psychological aspects of taking another persons' life is not fully understood (Grossman, 2005).

Andrew Pomerantz, Chief of Mental Health Services for the Veterans Administration in Vermont indicates he has never met a person, who killed another, that was not traumatized by the act of killing. David Grossman, retired Lt. Colonel, United States Army, and Director of the Killology Research Group, mentioned in his interview with Frontline that the act of killing leaves a person with the potential to be mentally impaired (Grossman, 2005). Dr. Matthew Friedman, Executive Director of the Veterans Administration National Center for Post-Traumatic Stress Disorder told Frontline that for law enforcement officers and others, killing can be the most critical and traumatic experience (Grossman, 2005). Yet, law enforcement agencies are not utilizing the options available to teach officers how to become resilient to traumatic events, especially when using CEDs.

Mind –Based Training

The underlying principles of building resilience are based on developing tolerance to stressful situations, or by inoculating the individual against stress by exposure to increasing levels of stressful situations, as a form of mind training (Adler et al., 2013). The concept of mind training (MT) is Buddhist-based and is designed to focus on process specific learning to enhance attention and awareness in-the-moment to foster cognitive restructuring (Purser & Milillo, 2014).

In mind-based training (MBT), the objective is cognitive restructuring, which allows the individual to learn to see things from a different perspective with the goal of

effectively handling situations, stress, and distractions (Purser & Milillo, 2014; Stanley, Schaldach, Kiyonaga, & Jha, 2009). MBT is currently being used in military venues during predeployment exercises to train soldiers to tolerate stress and to inoculate them against the psychological effects of killing and combat (Grossman, 2009).

MBT is defined as a mental state in which the individual focuses full awareness of an experience at the moment of occurrence without judgment, emotions, or elaboration. MBT is commonly used in clinical settings to treat borderline personality disorder, substance abuse, recurring depression, eating disorders, generalized anxiety disorder, and post-traumatic stress, in conjunction with other forms of therapy for stress reduction (Stanley, Schaldach, Kiyonaga, & Jha, 2011).

Mindfulness-based Mind Fitness Training

Another form of resilience training is Mindfulness-based Mind Fitness Training (MMFT), which has proven to prevent psychological symptoms by decreasing stress. The usefulness of and effectiveness of MMFT was examined using all levels of U. S. Marine hierarchy reservists (n = 34) before deployment to Iraq. This venue allowed researchers to observe an increase of stressors over time and the use of less hours of MT training than mind-based stress reduction therapy programs (Stanley et al., 2011).

Training was delivered in an organizational setting on location during a total of 24 hours of instruction over a period of 8 weeks of stress inoculation training, in 2-hour increments with a one-day silent workshop. Homework assignments were to practice thirty minutes of MMFT using CDs recorded by the instructors of the sessions with the participants. A second group of Marines (n = 21) from the same unit received no training

for purposes of comparing changes in stress and mindfulness during the training period. Some Marines had been previously deployed to Iraq several times and some were new deployments (Stanley et al., 2011).

Inclusion criteria was that none of the participants had received MMFT prior to the study. Researchers sought to determine whether MMFT reduced stress levels and whether the length of time MMFT exercises were practiced, had bearing on the effectiveness of the MMFT. Unstructured interviews were conducted in the third week of training to collect qualitative data. Anonymous self-report surveys were used to determine the effectiveness of MMFT on the individual participants and on the entire group before and after deployment to another country (Stanley et al., 2011).

Qualitative data implied Marines experienced better attention skills, enhanced family life, modified stress coping behaviors, and good progress with emotional self-regulation. Team members and supervisors mentioned improvements in group communication and trust. A few of the Marines displayed annoyance at having to attend MMFT on their personal time (Stanley et al., 2011).

Stress Exposure Training of Pilots

Another area where mind training has been used successfully is in the aviation industry. Aviation has been identified as a high-risk environment, wherein stress has been found to alter the decision-making ability of pilots, and it accounts for approximately half of fatal aviation accidents (McClernon, McCauley, O'Connor, & Warm, 2011.) Stress in aviation venues is defined as the psychological, physiological and behavioral demands which become overwhelming, distracting, and attention restrictive, exceeding the pilots'

resources. McClernon, et al., (2011) tested whether stress training is effective in aviation venues, using non-aviation individuals (n = 15) randomly assigned to receive stress training and another 15 participants (N = 30) as part of a control group.

Researchers used a stress exposure training (SET) approach centered on the theory that for stress training to be effective it must include three factors. First, training should incorporate a training task with a stimulus and response. Second, the training must be dependent upon the participants' retention, retrieval of information, and mental state during training. For example, for SET to be effective with pilots, they would have to experience stressful conditions, which might be encountered while flying. The third factor includes enabling participants to feel confident in drawing from their experiences and resources in stressful events (McClernon et al., 2011).

SET was accomplished in this study with a multiple step process, to teach participants the proficiency in flying skills, stress coping mechanisms, and practicum under stressful conditions, using an isolated application of a stressor that would not interfere with the tasks of flying. The treatment group was exposed to an experiment comprised of applying flight skills to a task during 10 minutes of simulator flying, while undergoing stress from a cold pressor. The cold pressor consisted of putting one foot into a bucket of ice water at 9 degrees during flight simulator training and again while performing a task during flight simulation. The control group underwent the same flying tasks in a simulator without a cold pressor treatment. Both groups underwent a stressful flying exercise in a Piper Archer aircraft. Telemetry and flight instructor evaluations showed the group trained with a stressor performed better, with smoother flying during

the stressful event, than the group that did not receive the stress training (McClernon et al., 2011).

The study confirmed a three-step approach in delivering SET is beneficial in improving pilot performance. Limitations of the study were that SET with a stressor had not been tested in real-world flying and it is unknown whether training with a stressor transfers to other forms of stress (McClernon et al., 2011). These results suggest SET is beneficial in training participants to carry out tasks in a proficient manner, even when faced with stressful situations.

Stress Inoculation Training

Stress inoculation training (SIT) is designed with the same principles as stress exposure training. Martin Seligman introduced the concept of stress inoculation training (SIT) to provide military personnel and LEOs with a strategy to prevent the likelihood of developing acute stress reaction and/or post traumatic stress disorder, in the aftermath of using deadly force and lethal weapons (Grossman & Christensen, 2008). The goal of SIT is to teach mental preparedness by giving the individual an opportunity to practice decision-making in the type and degree of force, and the mental, physical, and psychological factors involved in the actions associated with their decisions and the act of killing (Meichenbaum, 1996; Meichenbaum & Deffenbacher, 1988).

Stress inoculation training was initially developed based on cognitive and relaxation coping techniques to reduce anxiety and later redesigned to reflect modern concepts of cognitive psychology (Meichenbaum, 1996; Meichenbaum & Deffenbacher,

1988). Recent SIT techniques to reduce stress and anxiety are comprised of conceptualization, skills building, and application.

Anxiety is operationally defined as a state of heightened arousal and anxiety producing thoughts and images. The conceptualization phase is used to educate the trainee about how to recognize what anxiety is and the methods for handling anxiety producing events which range from moderate to overwhelming. Recognition of anxiety includes self-awareness of anxiety producing symptoms, such as self-dialogue and self-destructive thoughts and behaviors. The focus is on learning to identify the physical and psychological clues to stress and taking responsibility for handling that stress by developing new ways of acknowledging and rationalizing the symptoms associated with anxiety. Therapy includes coping skills to mitigate arousal and cognitive skills to reprogram anxious thoughts (Meichenbaum, 1996; Meichenbaum & Deffenbacher, 1988).

In Phase-2 the client works to acquire skills and relaxation techniques to manage and minimize anxiety. Cognitive reprogramming enables self-instruction to overcome negative self-statements, initiation of problem solving and change of behaviors with relaxation and assertive actions. The goal is to build patterns of reactions that relieve anxiety. Trainees practice coping skills learned in phase two in the final phase of SIT by role-playing and rehearsal (Meichenbaum, 1996; Meichenbaum & Deffenbacher, 1988). Participants are assigned homework to utilize behavioral exercises, which allows them to apply newly learned skills to real-world anxiety-producing events. They engage in follow-up discussions with the therapist for feedback and their homework is used to

refine skills to change negative self-statements (Meichenbaum, 1996; Meichenbaum & Deffenbacher, 1988).

More recently, SIT concentrates on unconscious mental processes (cognitive structures), such as interpretations, mental schemas, associations and retrieval of information formulated on prior experiences (Meichenbaum, 1996; Meichenbaum & Deffenbacher, 1988). Cognitive structures are mental patterns which lead to the choice of behaviors, thoughts, feelings, and actions that become mental scripts (Shaffer, 2002). SIT has been successful in treating people with anger control problems, pain patients, and victim groups, test anxiety, performance issues, social phobias, and panic attacks (Meichenbaum, 1996; Meichenbaum & Deffenbacher, 1988).

SIT treatment for anxiety often includes relaxation, cognitive restructuring, and self-instruction on problem solving and self-efficacy to combat symptoms of stress arousal and its effects. Exercises are focused on application in nonstressful situations for the behavior to become engrained and adopted as new patterns of thinking and behaviors to replace automatic internal dialogue. Rehearsal exercises are then designed the learned schemas, coping self-statements, and behaviors. The restructured self-statements arise out of discussions between the trainee and the therapist or trainer about viewing stress or anxiety as a problem that can be solved by developing a plan for resolution (Meichenbaum, 1996; Meichenbaum & Deffenbacher, 1988).

The objective of SIT is to guide the trainee through reframing thoughts which provoke anxiety and to develop coping methods to help fractionalize the problem. Methods may include imagery, role playing, and simulations that will cause increasing

levels of stress. This gives the trainee an opportunity to practice new skills to lower symptoms of anxiety, as a means of inoculation from stress (Meichenbaum, 1996; Meichenbaum & Deffenbacher, 1988). As the client learns to control anxiety, the therapist concentrates on exposure to real-world scenarios by introducing high risk anxiety inducing situations, wherein the client can utilize the cognitive restructuring learned. SIT can be adapted to groups in 8-22 sessions that target specific conceptualization and coping skills.

Meichenbaum and Deffenbacher, (1988) suggest the duration of group sessions be from 75-90 minutes to sufficiently address the needs of the trainees, and the number of sessions dependent upon the progress of the individual members of the group. Their recommendations for groups included minimum time spent on conceptualization. Training should concentrate on cognitive coping skills with emphasis on problem oriented self-instruction for restructuring of negative thought patterns and self-rewards or self-efficacy statements (validation). The author's final recommendations were to combine SIT with skills training incorporating specific tasks to foster the development of coping skills that can be adapted to other areas (Meichenbaum, 1996; Meichenbaum & Deffenbacher, 1988).

Summary and Transition

Although, the use of CEDs has been found safe to use on humans, the device does pose the risk of citizen injuries and deaths. While the risk of injury to a citizen is one of the law enforcement officers' main concerns, their obligation is to maintain order of resistant suspects with as little force as is necessary for compliance. The CED is the less-

lethal weapon of choice and LEOs have been schooled as to the types of incidents in which CED use is authorized, the restrictions of use on vulnerable citizens, and the proper use of the weapon.

However, law enforcement officers do not receive resilience training for dealing with the aftermath when the death of a suspect occurs. The psychological impact of CED utilization in the LEO is unknown and there is cause for additional concern when the TASER X3 and X2 reached law enforcement venues. As previously mentioned, the TASER X2 has the capability of discharging two sets of probes. This raised the question of whether the capability of the newest Smart Weapon would cause more deaths associated with Taser use. It is not known how officers are handling the emotional strain of these types of deaths. Moreover, the research seeks to explore the LEOs thoughts about the type of training they believe is needed to prepare them for the possibility of killing a suspect with a CED.

Chapter 3: Research Methods

Introduction

This chapter describes the research methods used to explore whether the training received by police officers is successful in preparing them for using a conductive energy device (CED) on citizens, with special emphasis on the psychological impact of unintended Taser-related citizen deaths. The research questions were: (a) How does using a conductive energy device in the line of duty personally affect the law enforcement officer? (b) How do law enforcement officers describe the experience of an unintended CED-related death? (c) What mental processes are typical when using less-lethal weapons? (d) How do officers perceive the current CED training? (e) What kind of preparation is provided in training for deaths that may occur when CEDs are used?

The chapter is comprised of eight sections, the Research Design and Approach, Role of the Researcher, Methodology, Population, Instrumentation, Data Collection, Data Analysis, and the Summary.

Research Design and Rationale

The purpose of this phenomenological qualitative research was to examine and understand the mental, physical, and emotional aspects of utilizing a CED in law enforcement officers. The goal was to explore the officers' "lived experiences" of Taser usage. A second objective was to understand whether the unintentional killing of a citizen with a Taser had the potential to cause residual emotional problems, from the perspective of the officers. A third goal was to investigate what, if any, training received by the officers mentally prepared them for the risks associated with the use of CEDs.

A qualitative design was chosen for this study based on the Husserlian phenomenological five-step method, as adapted by Giorgi (2009) for psychological research (Patton, 2002). This five-step model added rigor to the investigation of the phenomenon that was of interest. The research was exploratory in nature with purposive sampling. The reason for choosing this inductive approach was to elucidate the officers' descriptions and perspectives by combining data from audio-recorded interviews with information from close observations for a more in-depth understanding of the "lived experiences" of the law enforcement population. The objective was to extrapolate raw data in the form of rich descriptions of the experiences of utilizing a CED, in the words and from the understanding and meaning of the individuals (Creswell, 2013; 2014; Frankfort-Nachmias & Nachmias, 2008; Giorgi, 2009).

The principles of Giorgi's (2009), five-step model were followed and included: (a) my immersion as the investigator into the phenomenological approach, which means setting aside prior knowledge and beliefs to enlist an open and unbiased look at the data. (b) I read descriptions without critical reflection to get the overall content of the participants' experiences. (c) The meaning units were extrapolated from the participants' descriptions; and, (d) transformation of meaning units was made by expressing the officers' descriptions in psychological terms, with careful attention not to change the participants' meanings. In this case, the psychological terms included, anxiety, fear, guilt, frustration, intrusions, avoidance and all other variables that emerged from the data. (e) Analysis was accomplished by synthesis of the psychological units which made up the entire contents of the transcribed interviews (Giorgi, 2009; Patton, 2002).

Role of Researcher

I was the instrument in data collection as the observer and interviewer of the officers. I did not, and currently do not have a relationship with the supervisors or instructors of the institutions that were asked to participate in the project. Therefore, it was understood I would have to develop trustworthiness and confidence to achieve technical rigor, credibility, dependability, and confirmation of data. Letters soliciting cooperation by law enforcement agencies were sent out upon receiving the Walden University Institutional Review Board (IRB) approval #03-23-16-0346192. I provided the primary supervisor and contact person within the agency, with a verbal and written overview of the project, consent to participate, an explanation of the data collection procedures, and an estimate of time commitment requirements. To establish trust with the supervisors and officers, the written requests for participation were followed with a personal visit for purposes of meeting, conversing, and interaction with the supervisors, trainers, and potential participants.

I made certain to provide the agencies with copies of the questions for demographic data, statement of confidentiality, and the consents to be signed by the participants. In addition, the agency supervisors and trainers were informed of my ethical obligations to the individual officers and the need to maintain confidentiality (Creswell, 2013; Patton, 2002). I used a primary contact person at the agency, the trainers, and other insiders to recruit participants. A meeting with the potential participants was requested for purposes of describing the study, gaining consent, and scheduling of individual

interviews. To reduce the possibility of bias, I did not discuss the interview questions with potential participants until the day of the interviews.

It was anticipated the officers, who volunteered to participate, would be asked by their departments to schedule the interviews on their own personal time. It was expected the officers would prefer to use their personal time with their families and for recreation. Therefore, in the interest of fairness and in appreciation of the officers for consenting to participate, a $25.00 gift card was offered to the participants upon verification of the transcribed interviews.

Methodology

This section described the methods used for recruitment, selection of participants, gathering of data, strategies to reduce researcher bias, establishing credibility, ethical considerations, and data analysis.

Data Sources

The primary data sources were law enforcement agencies in Galveston and Harris counties. Other sources of data included observations, administrative and public records of Taser-related deaths, and records of Taser certification training. As previously mentioned, interviews and observations were the method of data collection. Observations included participants' reactions to the study and reactions to the interviewer, and interactions between the interviewer and the participants. An interview guide was prepared to focus the interview and for best utilization of the limited time and availability of the officers for the interviews.

After receiving the agency consents to cooperate, I requested to attend the morning and evening shift role calls to introduce the study to the potential participants and to pass out information sheets. Thereafter, I obtained permission to post an information sheet about the study in all the common areas within the agencies used by potential participants. However, this method did not matriculate in recruiting participants. Therefore, I asked supervisors, trainers, and other insiders to actively assist in recruiting officers who met the sampling criteria and each were provided with project information sheets listing the contact information for me.

I was aware that to solicit assistance I should get to know the potential assistants' level of trustworthiness prior to asking them for help. The insiders were thoroughly informed about the study, eligibility criteria, and the potential threats to credibility of the project (Creswell, 2013; King & Horrocks, 2010; Patton, 2002). I kept in constant communication with recruiters to address any recruitment problems and to provide additional information or answer questions as they occurred.

Population and Sample Size

The study focused specifically on a population of law enforcement officers (N = 15) who had deployed Tasers on citizens. The data set were comprised of a randomized sample of two groups of officers, who had experienced one of two scenarios: a CED activation that was successful in subduing a resistant citizen (n = 5); and a CED deployment that was not successful in subduing a citizen (n = 5). The third group was a non-randomized sample of officers (n = 5), whose CED discharge resulted in a citizen

death. The objective was to understand the psychological impact of the "lived experiences" in three different types of scenarios.

A non-randomized sample was chosen for the third group of officers because the population of officers involved in Taser-related deaths in Texas is very small. The approach for data collection from this group followed the concept of saturation in qualitative studies. Saturation was achieved when new data became redundant or previously collected data were repeated (Mason, 2010). For example, the third sample was made up of a specific group within the population whose experiences were unique because the officers were involved in citizen deaths associated with Taser deployments; yet, the continued collection of new data could not shed any further light on the issues of interest (Mason, 2010). Interviews were chosen as the data collection method because it was my intent to find out from law enforcement officers from their perspective, things that could not be directly observed, such as feelings, thoughts, and emotions (Patton, 2002).

Eligibility Criteria

Supervisors and administrative personnel not out in the field interacting with citizens and officers who did not carry a CED were excluded from this study. Only men and women law enforcement officers in the field or who had deployed a CED on citizens or other police officers and who had been Taser trainers were included in the study.

Participant Selection

Law enforcement officers consisted of police officers, school police, deputy constables, sheriffs' deputies, and correctional officers. This study utilized a purposive sample because these types of cases are information rich (Creswell, 2013; Frankfort-Nachmias & Nachmias, 2008; King & Horrocks, 2010; Potter & Hepburn, 2005). The sample consisted of three groups of officers. Officers not equipped with a CED were excluded from the study. To be included, officers must have deployed a CED on resistant citizens; or their Taser activation resulted in a citizens' death.

Although Taser-related deaths receive an abundance of media coverage, these incidents are relatively few as compared to other types of police-citizen encounters throughout the United States (NIJ, 2011). The population of officers whose CED activations have resulted in citizen deaths is especially small in the state of Texas. Therefore, the third group was a nonrandomized purposive sample. I asked participating agencies for their reports of Taser activations to determine the number of officers who had been involved in Taser-related deaths. When the information was not made available due to privacy laws, computer research to find the appropriate officers was conducted through Google.

Instrumentation

Instrumentation included an observation sheet, interview protocol, and digital audiotapes (King & Horrocks, 2010). An interview protocol was used, keeping in mind to remain flexible with the order of questions and in phrasing the questions in such a manner which would allow the participants to lead the direction of the interaction. I was

aware the interview protocol was subject to change after the first few interviews for purposes of staying flexible and capturing the true lived experiences of the officers. Interviews were conducted in either a conference room of the participating agencies or in my personal office. Key points covered were: questions about demographics, training, the mental processes of choosing less-lethal weapons as opposed to a firearm, Taser-related experiences, and Taser-related deaths.

Data Collection

Data was collected with standardized open-ended interviews to allow the participants the freedom to fully express their viewpoints and experiences. The interview guide used is located at the end of this dissertation and is identified in the Appendix. The interview protocol enabled me to extract similar patterns from case to case during analysis and reduced researcher bias (King & Horrocks, 2010; Turner, 2010). I conducted semi-structured interviews of the three groups in the counties in which the officers were located. Interviews were conducted at the officers' convenience. It was difficult to gather the officers at the same times due to their shift schedules. Observation notes were made after the interviews had taken place and had been digitally recorded. I made every effort to remain flexible and responsive to situational changes and comments made by the participants.

Lived experiences were defined as actions, physical and mental processes, thoughts and emotions, such as depression, fear, guilt, anxiety, frustration, intrusions, avoidance, and hyper-arousal. Stress inoculation was defined as the ability to meet

stressful challenges and to bounce back emotionally after traumatic experiences. Other variables were identified and defined as data emerged.

I confirmed interview dates and times with the participants prior to traveling to the locations of the participating law enforcement agencies, wherein qualitative interviews of the three group of officers were conducted. Interview duration was expected to be one hour, in an agency office located in an area not likely to be interrupted. Preparations included turning off phones, and placing a "Do Not Disturb" sign posted on the outside of the door. Participants were informed as to the purpose of the study, their right to terminate the interview, the nature of the interview process, and that the interview would be digitally recorded. Officers were briefed as to how data would be utilized, confidentiality, who would have access to the recordings, where recordings would be stored, and how transcripts would be anonymized (Creswell, 2013; King & Horrocks, 2010).

The purpose for taking notes during the interviews was to prompt the interviewer with points of clarification and follow-up questions, and this was explained to the participants prior to beginning the sessions. Observation notes included descriptions of gestures, special comments, and facial expressions denoting emotions. Probes were devised to elaborate details and clarify terms or processes to obtain in-depth data during the interviews.

Interviews were conducted using open-ended questions, such as "In as much detail as possible, please describe a Taser-related incident that remains foremost in your mind;" and, "Please describe a Taser-related incident in which you were successful in

subduing a resistant citizen." Follow up probing questions began with "you mentioned… please tell me more about it." Audio-recordings of the interviews were made and the transcribed data were member checked (verified) by email or telephone prior to analysis and publication (Creswell, 2013; King & Horrocks, 2010).

Under communicative participants were handled by asking probing questions to try to get them to relax and expand on their thoughts. Over communicative participants were handled by allowing them the freedom to "tell all" and then reverting to the main question when they paused. In the event a participant became distressed, I paused the interview, resumed and moved to a different question or requested taking a break (deMarrais & Tisdale, 2002; King & Horrocks, 2010). Off the record disclosures or comments were handled by expressing the need to record all vital information in their own words to avoid misinterpretation, and the participant was asked for permission to turn the recorder back on (King & Horrocks, 2010).

Data Transfer and Processing

All digital recordings were placed in a secure and locked briefcase while exiting the conference rooms and while traveling, until it was feasible to download from the digital recorder onto my home computer.

I am proficient in Word software, typing and proof reading, and I drew from previous experience as a legal secretary and paralegal to transcribe the digital recordings verbatim. The transcriptions were then imported into NVivo software (QSR, International, 2012). A copy of the transcriptions was downloaded unto a USB drive and

locked in a cabinet for safekeeping. A second paper copy was used for identifying patterns of words and phrases and categorical coding.

It was anticipated if time did not permit me to transcribe the interviews, the "transcribe me" feature in NVivo would be used for verbatim transcriptions. The "transcribe me" feature enables digital recordings to be transcribed and imported directly into NVivo (QSR International, 2012) for a fee. After member checking data by email or telephone, to confirm accuracy of the transcriptions, personal identifiers were replaced with study identification numbers, age, and gender, and for each participant.

Data Analysis Plan

A constant comparative method of data analysis was utilized to provide a systematic process and for purposes of developing an audit trail (Boeije, 2002). Comparisons included close reading, re-reading, and coding of significant statements by working back and forth between data to identify themes of meanings, while paying special attention to issues of credibility. I followed qualitative research methods of identifying words, patterns of words, sentences, and paragraphs, to capture the true meaning of the experiences and thoughts of the participants to develop descriptive codes and then summarized passages with psychological terms, such as anger, sadness, shame, and guilt (Saldana, 2013).

NVivo software was used because it has the capability of automatically forming data sets and queries can be used to identify word frequencies (QSR, International, 2012). The software develops matrix codes to tag opinions, emotions, and negative or positive attitudes. Verification of data was then made by listening to recordings while reading the

transcriptions, and transcriptions were member checked with participants for accuracy by telephone. Transcribed discrepancy cases were to be handled by initiating a telephone call to the participant for clarification of data. However, there were no discrepancy cases in this study.

The first reading of the transcriptions and my observations were made to gain an overall understanding of the content of each interview. The interview protocol was divided into four sections for ease of locating key phrases that connected directly to the research questions, the impact of using Tasers, and the training received by officers. This enabled connecting data to specific questions about the job, Taser-related experiences (successful and unsuccessful deployments), Taser-related deaths, and training questions.

A second reading facilitated the beginning of formal coding of themes by identifying recurring regularities or features, such as words or descriptive phrases. This involved highlighting key themes for developing a data set from the theoretical framework and research questions (Saldana, 2013). I maintained a copy of the questions next to the transcriptions to keep focus and attention on the purpose of the research and to keep bias in check. Notes were made in the margins of the transcriptions for ease of developing descriptive coding categories, and dated analytical memos were made in a binder for future reference and evaluation.

In the third reading, interpretive coding in the form of psychological terms were assigned to meanings of clusters to form preliminary categories (Saldana, 2013). The framework for organizing the data arose from the patterns which matriculated from the emergent themes. The categories were grouped together and cross-categorized with

subsequent readings of the various interview transcriptions. Each separate interview was coded and compared to previous coding for comparison and potential recoding.

Classification, coding of data, and labeling was made in the fourth and fifth readings for production of an indexed and tabbed copy. A table of codes was organized to reflect the interviewee responses. Sub-categories were added during coding dependent upon the descriptive codes generated from the verbal passages.

Issues of Trustworthiness

Credibility

Credibility in this qualitative study was established by using naturalistic inquiry and rigorous methods, defining my role and the belief that there is value in capturing qualitative data from the perspective of the participants in their own words (Creswell, 2013; Frankfort-Nachmias & Nachmias, 2008; King & Horrocks, 2010; Patton, 2002). In addition, I underwent preparation to enhance researcher credibility by completing extensive reading and studying of qualitative methods for observation, interviewing, coding, and analysis of data, as shown in the references section of this dissertation. Observations and digital recordings were used to substantiate credibility with verbatim quotations from the detailed and thorough descriptions of the claims made by the participants.

Transferability

Qualitative evaluation and analysis was made keeping in mind the lessons learned from extrapolating data from transcriptions. Specific concerns included the stress associated with CED utilization, and the mental preparation training available to law

enforcement officers. The analysis showed the data collected has the potential to impact future Taser training and policy changes. It is unclear whether the findings of this research can be used in other applications (Mason, 2010; Turner, 2010).

Dependability and Confirmability

As I gathered data, the emerging patterns were confirmed by comparing data from the first transcribed case with subsequent cases to extrapolate the true meanings and the level of importance assigned to the data. Data levels of each case were compared from case to case and documented for confirmation of new emerging patterns and findings, and for ease of replicability. Data was triangulated with notes from observations. Data that did not fit into existing themes or patterns was categorized and analyzed independently into findings that contradicted prior data or confirmed findings.

Ethical Procedures

To address ethical concerns, I followed the *Ethical Principles of Psychologists and Conduct of Conduct* as promulgated by the American Psychological Association (APA). Institutional Review Board (IRB) approval was obtained from Walden University as stipulated by the APA. Informed consents to participate included an information sheet and a conversational discussion about the purpose of the study, procedures, and the right to withdraw participation as set out in Standard 8, Section 8.02 (APA, 2010). The right to privacy, confidentiality and the use of confidential information was explained and adhered to as outlined in Standard 4, Section 4.02. Recording of the interviews followed the recommendations of Section 4.07, and consent to record the interviews was obtained from the participants.

Recordings as provided by Standard 4, were discussed with the participants before commencing the interviews. In accordance with Section 4.02, maintaining privacy and confidentiality was included in the information sheet and discussed prior to the interviews. I made every effort to ensure there was no deception as explained in Section 8.07. Thorough debriefing of participants as discussed in Section 8.08, was made as to the purpose of the study, procedures for obtaining data, confidentiality, the right to withdraw from participation, and by explaining the obligations of the investigator to report the research as required in Section 8.10 (APA, 2010). Offer of inducement in Section 8.06 was justified in the section on my role as researcher in this study.

Resources for counseling were offered on the information sheet in the form of an 800 number for immediate crisis counseling to officers who required mental health services after participating in this project. Only participant 15 showed signs of distress and he was offered a referral to a counselor.

Dissemination of Findings

Study findings were disseminated to Walden University as a final dissertation project. In addition, a 1-2-page summary will be provided to participating law enforcement agencies. In addition, after the study is complete I intend to publish several articles in law enforcement related journals. Possible journals include *Police Quarterly, Forensic Science International, Journal of Traumatic Stress, Police Strategies and Management, Journal of Experimental Criminology, International Journal of Police Science and Management*, and *Justice Quarterly*.

Summary

This chapter presented the research methods used to investigate the psychological impact of CED utilization on two purposive randomized samples and one purposive non-randomized sample of law enforcement officers. The research design was a phenomenological study exploring law enforcement officers lived experiences of Taser utilizations using Giorgi's (2009) five-step model of qualitative research. The sample consisted of three groups. The first group was officers whose CED deployment were successful in subduing resistant citizens. The second group was officers whose Taser deployments failed, and the third group was officers whose CED deployment resulted in the death of a citizen.

Only officers who had deployed a CED on citizens were included in the study. Participants were recruited from Galveston and Harris counties. The population was law enforcement officers and a purposive sample was used with randomized and non-randomized groups. I fully understood that I was the primary instrument and made every effort to compartmentalize potential bias in my role as researcher.

Chapter 4 presents information about the research setting, data collection, the population and sample size, my observations, the emergent themes, the methods applied in the data analysis, the results, and a summary. In Chapter 5, I discuss the results, my interpretation of findings, limitations of the study, recommendations for future research, and implications for social change.

Chapter 4: Results

Introduction

The purpose of this phenomenological study was to investigate and understand the "lived experiences" in the first-person perspective of the officers when they deployed a Taser on a suspect. The emphasis was to collect data about the psychological impact of deploying a Taser on a suspect, including unintended citizen injuries, and Taser-related citizen deaths. A second objective was to explore the training received in Taser certification and to determine whether stress-inoculation should be included in this training.

Chapter 4 begins by illustrating the research setting, followed by a second section which is an explanation of the data collection conducted to address the following five research questions: (a) How does using a conductive energy device in the line of duty personally affect the law enforcement officer? (b) How do law enforcement officers describe the experience of an unintended CED-related death? (c) What mental processes are typical when using less-lethal weapons? (d) How do officers perceive the current CED training? (e) What kind of preparation is provided in training for deaths that may occur when CEDs are used?

The third section presents the data analysis procedures and includes a complete list of codes used to interpret the data and the results of the participants' demographics. The fourth section is the data analysis. The fifth section depicts evidence of trustworthiness, credibility, dependability and transferability. The sixth section conveys the results with a summary of findings and a transition to Chapter 5.

Research Setting

This was a phenomenological study designed to explore the psychological impact of Taser utilization in police officers. I chose an inductive approach which required a purposive sampling, selected to elucidate the officers' perspectives by combining observational data with transcripts of the audio recorded interviews for a thorough understanding of the officers lived experiences. The location for this study was Galveston and Harris counties in Texas. It is important to note; the focal point of interest and objective of this study was to document the officers' descriptions of their "lived experience" in using a conductive energy device on another person.

Therefore, after receiving approval from the Walden University Institutional Review Board (IRB), I contacted law enforcement acquaintances in Galveston and Harris counties for their help in recruiting participants who had deployed a Taser on resistant suspects. I began the recruitment process by mailing letters to the local chiefs of police and sheriffs in Galveston and Harris counties, requesting their cooperation in the study. There were no limitations as to the size of the city. Two weeks later, when I had not received an answer to my requests, I telephoned the chiefs of police and requested a meeting to introduce myself and discuss my study. The chiefs of police stated they could not mandate participation, but would not be opposed to their officers participating. I then phoned the sheriffs of both counties with whom I was acquainted, for their help. The sheriffs were excited to become involved in the study and both signed an agency consent to participate without further delays.

When I was told by the sheriffs' offices they could not make available the officers' phone numbers due to privacy policies, I requested an audience with the officers at shift briefings. I attended the shift briefings to introduce the study to the potential participants and to pass out information sheets. The information sheets included an explanation of the sampling criteria, purpose of the research, the goals of the study, and my contact information to facilitate recruitment and to answer questions. Each time I attended the shift briefings, I had with me study packets in sealed envelopes which included the information sheets. To satisfy the randomized selection of participants, some of the envelopes contained informed consents and others did not. I continued to attend shift briefings to pass out study envelopes until I had obtained consents to participate from the total number of participants needed for Groups 1 and 2. I then placed calls to the officers to schedule their interviews. This task proved to be challenging, as their shift schedules were at different times and the public library was not open during times that were convenient for the officers. I then submitted additional interview site locations to the IRB, and upon receiving approval commenced to schedule interviews.

To recruit the five participants for the third group, it was necessary to personally contact individual officers who had been involved in Taser-related deaths. This was accomplished by researching the Taser-related deaths in Galveston and Harris counties. I made numerous telephone calls to locate the officers who met the criteria for this group. The participants in this third group were scattered throughout the county and it soon became apparent the public library location was not convenient for them. Consequently, I submitted a Change Request to the IRB to add my personal office as an additional

interview site. Once approved, I commenced to scheduling the officers in this group for interviews. There were no personal or known organizational conditions which influenced the participants or the interpretations of the study results.

Data Collection

The purpose of this qualitative phenomenological research was to derive an understanding of the "lived experiences" of a population that had experienced a phenomenon. The data sought for this study answered five research questions designed to illuminate what it was like for police officers to use a conductive energy device (Taser) in the line of duty.

I requested permission to review the participating agencies' reports of Taser activations to determine the number of officers who had been involved in Taser-related deaths. When the agencies were not forthcoming with this information, data was collected through computer research through the internet to identify the names of officers who had been involved in Taser-related citizen deaths in the chosen geographic areas. Telephone calls were placed to the individual officers at the various sheriffs' departments and a message was left for the officers to call me. When the officers returned my call, I explained the study and read the information sheet to them including the purpose, goals, and confidentiality. I ended the initial call with a request for a face-to-face meeting to further explain the project, request participation, and obtain consents to participate.

Research Questions. The first question, which led the entire thesis of this study, was asked to understand how using a conductive energy device in the line of duty personally affected the law enforcement officers. The second question was formulated to

explore how law enforcement officers described the experience of an unintended Taser-related death. The third question was asked to investigate the typical mental processes associated with using less-lethal weapons (the Taser) as opposed to lethal weapons (a firearm). The fourth question was asked to determine how officers perceived the current Taser training. The fifth and last question were asked to investigate whether Taser training and recertification mentally prepared the officers for serious citizen injuries or deaths, which occurred in the line of duty.

Population. Participants included police officers, correction officers, deputy constables, school police, and sheriffs' deputies. Officers belonged to one of three purposive samples. The first randomized group ($N = 5$) had deployed a Taser successfully, resulting in little to no injuries to the suspects. The second randomized group of officers ($N = 5$) had a Taser failure and were not successful in subduing the resistant suspect. The third non-randomized group ($N = 5$) was comprised of specific officers involved in Taser-related deaths.

Data. The data for this study were the participants' descriptions of their experiences in using Tasers in the line of duty in their own words. To establish a sense of comfort and trust between the officers and me. I began the interviews by introducing myself and sharing that my husband had been in law enforcement for 23 years and had held every position from patrol officer to chief of police. I mentioned to them that I knew first-hand how much police officers contribute to our community and the dangers encountered every day in the line of duty. By sharing this information, my observations were that it helped them relax to know I was not looking for blame and I understood law

enforcement officers and their jobs. I believe this disclosure gave the participants the perception I was one of them and truly cared what their thoughts and emotions were in relation to their Taser incidents. To establish rapport and trust, we chatted for a few minutes about the various positions they had held in law enforcement. I asked exploratory questions to begin dialog, such as "How long have you been in law enforcement" and "What are the things you like most about your job?"

Digital recordings were made to collect data using semi-structured interviews of the participants. Interviews took 20-45 minutes, which deviated from the expected one-hour time-frame. Demographic information was collected with simple questions prior to beginning the recordings to promote open dialog. I used questions, such as "What is it like for you to use a Taser on a person?" and "Please tell me, in as much detail as possible, about a personal Taser-related incident that remains foremost in your mind." The questions were designed to promote fluid dialog instead of yes and no answers. This format gave the participants an opportunity to portray their lived experiences with verbal descriptions in their own words, perceptions, emotions, and beliefs (Saldana, 2013).

Most participants were forthcoming with information, two remained uncomfortable for the entirety of their interviews and it was difficult to get them to open-up and illustrate their experiences. Probing questions had to be developed in the moment to urge them to talk. As the participants recited their stories about using the Taser in the field, I made mental note of their body language and facial expressions, which would later be written as observation notes. I did not want to distract the officers by taking notes in front of them; therefore, I waited until I was back in my automobile to make

observational notes. Participants were given the freedom to speak spontaneously about their phenomenological experiences and when I felt they had exhausted the topic, or I had enough information from them on a question, specific probing questions were asked, such as "you mentioned… please tell me more about it."

To glean more defined answers and better explanations from under communicative participants, other probing questions such as, "lets' talk about…." were used to fully allow them to revisit a topic or when they veered away from the initial questions (Saldana, 2013). I paused the interview and recording with P15 to allow him to regain his composure because he became distressed when sharing his experiences about the Taser-related death in which he was involved. I moved on to a different question when the interview resumed and came back to the initial question by rewording the inquiry. At the end of the interview, P-15 was referred to the hotline number which appeared on the consent form. I also offered to refer him to a counselor, and his reply was "this happened a long time, ago." "You would think I would have gotten over it." He declined a referral.

Recorded interviews were transferred from the digital recorder to my computer by playing the recordings in front of the computer into Express Scribe software because the automatic load feature of the software malfunctioned. However, having to transfer the recordings from the digital recorder in this manner enabled me to hear the interviews once again. I chose not to use the "transcribe me" feature of Nvivo offered by QSR International because it was important to hear the emphasis and tone of voice of the participants.

Recordings were transcribed in Word verbatim by me within three days and sent to the officers by email for verification of data. When the participants did not confirm receiving my email, confirmation of receipt was made by telephone and any changes indicated by the participants were made prior to beginning analysis. Personal identifiers were then scrubbed from the transcriptions and replaced with a study participant number.

The transcribed interviews were imported into Nvivo software to begin qualitative identification of word patterns, recurring phrases and sentences (Saldana, 2013), this would later become "empirical evidence" and it provided a systematic process for purposes of developing an audit trail (Boeije,2002).

Observations

Observational notes were jotted in a spiral binder and included insight which helped to identify and further understand the experiences shared by each officer. I documented non-verbal body language, facial expressions, gestures, emotions, sadness, guilt, and shame that had not been verbalized by the participants, by making mental note during the interviews, and later by noting my observations in a notebook. This allowed me to become fully submerged in the officers' experiences during the interviews, which kept researcher bias in check and allowed me to identify their actual meanings. I found this to be an important and critical part of understanding the phenomenon under inquiry (Patton, 2002).

Analysis of the Data

Demographic Results

Demographic data included age, gender, race, and years of service in law enforcement, presented in Tables 1 to 4 below.

Gender. Table 1 shows males comprised the largest portion of the overall dataset with a total of 14 participants (93.33%).

Age. Table 2 shows the participants ranged in age from 30 to 62, with the highest number of participants (16.66%) in the ages ranging from 36 to 40.

Years of Experience. Table 3 shows officers had between 8 and 30 years of experience, with the largest number of participants possessing 21 to 30 (23.32%) years of law enforcement background.

Race. Table 4 shows Whites comprised the greatest portion of the overall dataset totaling 10 (66.66%) out of a total of 15. There were 4 (16.66%) Hispanics, and 1 (6.6%) was African American.

Table 1 – Gender

Female	1
Male	14
Total	(N = 15)

Table 2 - Participant Age

30-35	36-40	41-45	46-50	51-55	56-62
3	4	2	3	2	1

Table 3 - Law Enforcement Experience

8 – 10 years	11 – 15 Years	16 – 20 Years	21 – 30 Years
3	4	3	5

Table 4 - Race of Participants

White	Hispanic	African American
10	4	1

After transcribing the interviews verbatim, the first cycle reading was made to gain an overall understanding of the officers' narratives and to identify emerging thematic categories. To keep focus and attention on purpose of the research and to keep my bias in check, key words and sentences were identified for development of a formal data set from the research questions. This allowed coding of significant statements that would later be connected to the research questions. Parent nodes were created in NVivo to reflect seven thematic categories and clusters. Creating the parent nodes facilitated using the drag and drop feature of NVivo to move the participants' descriptive phrases from the transcriptions into thematic categories and into a matrix that would later be used to compare passages from one participant interview to the next. The themes derived were lived experiences and the effects of using the Taser in the line of duty, psychological impact of Taser-related deaths, the typical mental processes involved in using the Taser versus a firearm, perceptions of Taser training including preparation for citizen injuries or deaths, stress inoculation training, and use of force.

In the second cycle reading, descriptive secondary nodes were created in vivo to allow codes to matriculate from the participants' sentences verbatim (Miles, Huberman, & Saldana, 2014), capturing descriptive phrases and the true essence of the participants' experiences (Saldana, 2013). The phrases and sentences were put into clusters, were highlighted on the computer screen, and developed into a data set by dragging and dropping the passages into seven thematic categories. Table 5 at the end of this study is a Matrix of the Structure of Emerging Thematic Clusters which evolved from the data and were coded in vivo.

Interpretive coding began with the third reading, resulting in assigning meanings to clusters to form preliminary nodes from repeated words and recurring patterns of data. Comparisons of in vivo codes could then be made from one transcription to the next and by going back and forth between responses. Emotion coding was conducted on the matrix by assigning psychological terms used to develop nodes for the category of psychological impact of citizen injuries and deaths. Emotion codes were generated from the officers' own words and each became a separate node under the parent theme nodes.

All codes were then triangulated between the matrix developed in Word and the Nvivo parent nodes. Triangulation was also made with secondary nodes, tagging opinions, emotions, and negative or positive attitudes regarding the use of Tasers. There were no discrepancy cases that required clarification of data. Written explanations were made in the form of an outline in a binder noting reduction of data, my thoughts, reactions to the participants, participant behavior, and steps of analysis.

Definitions of Categories. Lived experiences were defined as rich descriptions of the officers' opinions about the effects of using a Taser, their thoughts after the experience of using the device on a citizen, and their comments about how policies affected their decisions to use the device.

Psychological impact was defined as the officers' recounting of how a Taser-related death affected them personally and emotionally; and, its effects on their family and jobs.

Mental processes were defined as the decisions, differences, and similarities in using a Taser versus a firearm.

Perceptions of training were defined as the officers' accountings about the quality of Taser training received, whether they felt prepared for citizen injuries or deaths, and their opinions about whether stress inoculation training should be included in Taser training.

Use of force was defined as the officers' comments regarding how they make use of force decisions, their thoughts, and opinions.

The stress inoculation theme was the officers' thoughts about whether including Stress Inoculation Training in Taser certification courses would benefit law enforcement venues. Below are the thematic clusters and codes developed from the emergent data.

Table 5 – Structure of Emerging Thematic Clusters

EO	Effect of Tasers	Effects in the officers
	EO – Approach	Descriptions about using the Taser
	EO – Concern	Concerns after Taser deployments
	EO – Actions	Reactions to danger at the scene

	EO – No Support	No support from agency
	EO - Other Relevant	Relevant comments about using the Taser
	EO – Policy	How policy affects use of the Taser
	EO – Public Perception	How the Taser affects the public
	EO – Sympathy	Descriptions of sympathy for suspect
EO – Taser Failure		Reactions when Taser does not deploy
	EO – Taser Use	Perceptions regarding the use of Tasers

Category 2: Psychological Impact		Experiences as thematic clusters

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CD	Citizen Deaths	Post incident descriptions

CD – Anger	Anger after a Taser-related death
CD - Anxiety	Anxiety after Taser- related deaths
CD – Avoidance	Avoidance of emotions
CD – Compartmentalizing	Compartmentalization of feelings
CD – Death	Impact of death on the officer and comments regarding death of suspect
CD – Demoralization	Comments regarding media coverage, lack of agency support, family interactions
CD - Fear	Fear for self, family, job, investigation, and other post circumstances
CD - Guilt	Guilt after deploying the device and after

Experiencing a Taser-related death

CD – No Impact — The incident had no impact on the officers

CD – Outcome — Narratives about the outcome of the Taser-related death and its effects on the officers' lives

CD - Remorse — Feelings of remorse after death of suspect

CD - Sadness — Sadness for deceased, the family, sadness in general

CD – Stigma — Fear of stigma as a rogue officer officer not able to handle the stress of being out on patrol "on the street"

CD - Stress death	Stress described by officers after a citizen	and while waiting for outcome of investigation

Category 3: Mental Processes		Experiences as thematic clusters
MP	Mental Processes	Mental processes that officers undergo when using a non-lethal weapon, the Taser versus a firearm
MP – Differs		Descriptions of the mental processes of Taser versus a firearm
	MP – No Difference	No difference in Taser versus firearm
	MP – Psychological	Mental processes involved in Taser versus firearm
	MP – Typical	Mental processes as described when

		using Taser in the line of duty
	MP – Similar	Same or similar mental processes in using a Taser versus a firearm
Category 4: Perception of Training		Experiences as thematic clusters
TP	Training Preparation	Perception of current Taser training
	TP – Change Training	Changes that need to be made to training
	TP – No Change	Sufficient preparation for citizen injuries
	TP –Other	All other comments about Taser training

TP – Stress Inoculation	Responses about adding stress inoculation training segments to existing Taser training

Category 5: Preparation for Injuries	Experiences as thematic clusters

PI or Deaths	Preparation for Injuries Training for potential Taser-related injuries or deaths
PI Prepared	Comments about being prepared for potential citizen injuries and deaths
PI Negative	No training in current Taser training

		for potential deaths
PI Remove Probes		Comments about whether to remove probes and thoughts about whether to include in training
PI Call EMS		Training to include emergency medical services to remove probes
Category 6: Stress Inoculation		Experiences as thematic clusters
SI	Stress Inoculation	Perspectives about whether a segment of stress inoculation should be added to the Taser training courses

Category 7: Use of force		Experiences as thematic clusters
UF	Use of force	Use of force encounters

Evidence of Trustworthiness and Credibility

To instill credibility, I underwent rigorous preparation, in that many books were used as a research resource. I downloaded, read and studied information from the internet regarding qualitative research techniques, such as observation, interviewing, coding of data, and analysis. Care was taken in formatting the interview protocol and the questions were drafted to reflect a naturalistic inquiry focused on rigorous methods of capturing the essence of the officers' perspectives and lived experiences. Observations and digital recordings were used to substantiate credibility and verbatim quotations from detailed and thorough descriptions of the claims made by the officers. Verbatim quotes were used to create data nodes and were also used in the analysis to substantiate assertions.

Transferability

The specific concern in this study was to illuminate the participants' experiences in using a Taser in the line of duty and how it personally affected them. The goal was to gain an understanding of whether using a Taser on citizens has psychological implications for the officers, especially in the case of Taser-related deaths. The secondary objective was to document whether the existing Taser training prepares officers for potential serious citizen injuries and deaths, to determine whether stress inoculation training would benefit future training and other applications in the use of force. It is unclear whether these findings will transfer to other applications.

Dependability and Confirmability

As I was gathering data, the emerging patterns were compared and confirmed by constant comparison methods by going back and forth between the transcribed interviews to extrapolate the true meanings and level of importance placed on the data by the participants. Data levels were then compared from case to case and documented by creating data nodes in Nvivo for confirmation of emerging new patterns and findings, and for ease of replication. Data was triangulated with notes from observations. If data did not fit into existing themes or patterns, new nodes were created and analyzed independently into findings that contradicted prior data or confirmed previous findings. For example, in the case of P6, he claimed that the Taser-related death he was involved in had little to no effect on him because he "compartmentalized" emotions. There was no category for the word "compartmentalized;" so, I created a new node for this data.

Although P6 asserted he put the death of the citizen out of his mind, in a conversation with Galveston County Sheriff Henry Trochesset, I learned the officer went into the office the next day, threw the Taser device on the floor, and said that he would not go back on patrol again. When I asked P6 what the sheriff's response had been, he indicated he was suspended during investigation of the case and was told that if he felt the same afterward, he would be reassigned to a job off the streets. When P6 returned to work after being no-billed (found not guilty) by the grand jury, he was assigned to school security.

As mentioned previously, when interviewed and asked about the Taser-related death he had been involved in, P6 indicated he "put it out of his mind." Contrary to this statement, his body language and physical reactions during the interview, were avoidance of eye contact. He looked down at his hands on his lap during the entire time he spoke about his experience. My observation and interpretation in this instance was that although the incident occurred in 2012, and he would not admit the event affected him, his body language indicated he was having difficulty sharing his experiences.

Study Results

The study results were organized by providing an explanation of the Taser incidents in which the participants were involved, followed by the officers' responses to the research questions. Responses were divided into the three sampling groups. Group 1 were the participants involved in successfully controlling a suspect with a Taser deployment. Group 2 were the participants who were involved in Taser failures while trying to control a suspect; and, Group 3 were the participants involved in Taser-related

deaths. All interviews took place between May 17, 2016 and August 18, 2016. It is important to note here that all but one of the officers participating in this research have changed positions and law enforcement agencies since the date of the incidents made a part of this study. However, these changes were not a direct result of the Taser incidents.

Following is a description of the Taser incidents in which the participants were involved within each of the three sampling groups.

Group 1 These five participants were involved in successful Taser deployments.

- (P1) was involved in a call to an incident where the suspect was in a pond and there were several officers already at the scene. He deployed the Taser while the suspect was still in the pond and because the officers had their hands on the suspect, everyone felt the jolt. The suspect was handcuffed and taken into custody.
- (P4) was responding to a call from a citizen that the neighborhood bully was cursing at another neighbor. The suspect was asked for identification several times. The man had a physical size advantage over the officer and would not make available his identification when asked. He then eventually proceeded to take the license out of his pocket and as the officer would reach for his identification, the suspect would pull it back. P4 described the incident as "dancing around" with the suspect and when the officer initiated an arrest, the suspect became aggressive. The officer deployed the Taser, making full contact with the suspect.

- (P7) was a corrections officer who deployed a Taser in a controlled environment on an inmate who became physically disruptive.
- (P11) was an undercover officer who responded to a call about a suspect selling drugs. He approached the suspect and the man tried to sell him an eight ball of cocaine. The officer tried to corner the suspect as he ran into a trailer park. As the suspect tried to go up the steps to the door of a trailer, the officer deployed the Taser on the suspects' back.
- (P12) responded to a call for backup to a neighborhood where a suspect was going door to door using every and any excuse for knocking on doors. When the officer arrived at the scene, the first response group of officers had cornered the suspect in a wooded area. The suspect went over a fence and the officers gave pursuit, also jumping the fence. While the officer was running after the suspect, the suspect lost his pants, which left the suspect wearing only a T-shirt. The officer issued commands for the suspect to stop and then deployed the Taser. The probes made contact with the suspects' back and buttocks.

Group 2 These five participants experienced failed Taser deployments.

- (P1) experienced many times when he attempted to deploy his Taser and it did not work. His response to a failed deployment is highlighted later in this analysis.
- (P5) activated his Taser on a suspect and because the suspect was high on drugs, he continued to run until the Taser probes became dislodged.

- (P6) drew his Taser and it did not deploy because he forgot to charge the battery.
- (P10) found a suspect drunk in a ditch. As the officer approached the suspect and began questioning him, the suspect stood up and became combative. After several minutes of fighting with the suspect, the participant drew his Taser and deployed it. The suspect was incapacitated for 5 seconds, recovered and then continued the physical fight with the officer.
- (P13) responded to a call from a topless club about a fellow that was being argumentative with management. When the officers approached the club, management and the aggressive suspect were standing at the entrance of the club. The suspect ran and the officer gave pursuit across the parking lot. As the suspect began to cross the feeder road to the highway, the officer deployed his Taser, partially hitting the suspect's back. One of the two probes made contact with the suspect and the other probe did not. The suspect reached back, pulled out the embedded probe, and kept running.

Group 3 These participants were involved in Taser-related deaths. It is vital to indicate, this group of participants had difficulty describing their experiences and some were not as forthcoming with details as others. I had to develop probing questions in-the-moment to urge the participants to divulge details. On several occasions, I had to weigh the potential responses against the importance of the details regarding the actual Taser-related death incidents (Saldana, 2013). I did not press the participants for information regarding the actual incidents because the focus was not on the deaths of the suspects.

Instead, the purpose of inquiry was to delve into the officers' personal experiences of having been involved in a Taser-related death.

- (P5) was one of twelve officers responding to the call for backup. The suspect had been fighting with some of the officers and was assaulting them. The suspect was subdued with the Taser and was handcuffed. While waiting for EMS, the officers noticed the suspect was no longer breathing.
- (P6) was a deputy with the sheriff's department and had agreed to meet several other officers for lunch at a local restaurant. He was waiting in his vehicle for the other officers to arrive in the parking lot to a restaurant, when he saw a subject acting strangely. The participant exited his vehicle, approached the suspect and began questioning him. The officer's partner arrived at the scene and approached the participant and P6. As the two deputies were talking, the suspect started backing up and tried to run. P6 grabbed the suspect on one side and the other officer grabbed the suspect from the opposite side. As the suspect struggled with both deputies, the participant drew and activated his Taser in drive-stun mode on the suspect. P6 threw the Taser on the ground and the camera continued to record the events. The suspect was handcuffed and was laying on his stomach on the ground, when the officers noticed he was no longer breathing.
- (P8) and two other officers were at a scene when the detainee tried to grab one of the officers' gun. One of the officers hit the suspect with his flash light to try to keep him away from the gun. All three officers were trying to subdue

the suspect and they all deployed their Tasers. It was not clear whose Taser made the full contact with the suspect. The suspect died from injuries sustained to the head. All three officers involved were suspended pending Internal Affairs and Grand Jury investigations.

- (P14) was a patrol officer who responded to a call from a Sheriff's Deputy about the suspicious behavior of a subject in a parking lot outside a restaurant.
- (P15) was a patrol officer who had six weeks prior been involved in a hit and run, where a suspect tried to run over the participant with his car. The participant suffered broken ribs and was recovering from that accident when this incident occurred. P15 had been contacted by Immigration and Customs Enforcement (ICE) to be prepared to make a traffic stop of a suspect under suspicion of transporting 27 kilos of cocaine across the border. ICE contacted the officer and informed him that the suspect's vehicle was moving into his beat (district). The participant proceeded to make the corresponding traffic stop and while getting out of his vehicle, he called for backup. As P15 approached the suspect to ask for identification, he noticed the suspect was shaking as he took his wallet out of his pocket. When the suspect opened his wallet to pull out his identification, P15 noticed there was an unusual amount of money in the wallet. P15 commanded the suspect to get out of his car and put his hands behind his head. As the suspect got out of his car, he struck P15 in the chest. The participant drew and deployed his Taser. As the suspect tried to run from the officer, one of the probes struck the suspect on the back of the

> head and one on his back. The Taser activation drove the suspect up into the air and as he came back down, he struck his head on the street, bleeding from his mouth, nose, and ears. Both the officer and the suspect were taken to the hospital by ambulance. The officer sustained bruising of his previously broken ribs and the suspect underwent surgery at the hospital. The suspect did not recover from the surgery and died shortly thereafter.

Theme 1: Lived Experiences

The questions asked during the interviews were designed to promote spontaneous responses and reflection from the officers to understand the participants lived experiences. When asked, "What is it like for you to use a Taser on another person?" P2 stated,

"You're in a hostile situation and all these things and emotions are happening and after the fact, your kind of think, I just had to do that to another human being . . . you know you feel sad.

P4 indicated "it's the worse five seconds of your life . . . I apologize to them ahead of time because I know it hurts." P8, P9, and P3 shared they did not want to use the Taser on anybody because they knew how it felt to be tased. P6 stated "I try my best not to use the Taser at all . . . the Taser is like a last resort, whenever commands just do not work."

The question, "What goes through your mind when you choose to deploy the Taser?" was responded to by P9 as "there is a lot that goes through you mind in seconds." P1 stated "I don't feel bad or think I shouldn't have done it." P7 specified "I know at that

time, when I pulled my Taser out, you know, what if I fire it at someone that does not need to be tased?" P11 pointed out "I can tase somebody and if the Taser is on 5 seconds, the tase is over . . . no one got hurt, nobody suffered, no more nothing."

When asked, "How do agency policies affect your personal use of the Taser?", P1 responded that policy "gave us the option that a Taser is going to be more effective than basically getting hurt." P3s answer to the same questions was "Policies aren't so rigid . . . we may not do things exactly to policy because every situation is different." P7 explained that "pretty much, our policies to using the Tasers are you write a report and tell how the use of force is forced." P9 expressed "policy plays a big part and it plays a big part in the back of their minds . . . so, we end up questioning whether we do or whether we don't use the Taser."

To gain an understanding of how the officers interpreted their use of the Taser, the following question was asked. "What were your personal thoughts after using the Taser on a suspect (self-criticisms, beliefs, emotions)?" P15 said "to be honest with you, I didn't have any self-criticisms . . . I knew that I did what I had to do and when I had to do it, I knew I did my job." P7 professed "I do not remember having any questions about what is going to happen if I do this or what is going to happen after I do this."

P8 experienced another Taser incident in which the suspect was barricaded in a house. The suspect had pushed all the furniture against the front door making the apartment inaccessible to the officers. The suspect talked to the officers through a four-inch opening between the door and the door frame. The officer drew his Taser and deployed it on the suspect while two other officers forced the door to open further. P8

declared “I mean the poor guy, it was not his fault, but he got a 29 second continuous cycle while we cleared everything out.”

When asked, “How did the incident you just described personally affect how you now use the Taser?” The officers stated the Taser incidents they described have not changed how they use their Tasers. P14, who was involved in a Taser-related death explained “it did for a while . . . you take greater concern that they could be injured badly . . . it didn’t change the way I did my job.”

To understand the full spectrum of using the Taser in the line of duty, the question was asked, “What goes through your mind when the Taser does not deploy?” P1 stated “I get mad because the product failed me . . . it upset me because I had to go in with this arm and I got hurt.” P5 said “I always think I hope this works . . . when it fails it mentally stresses the officer.” P8 shared “you do have an oh shit moment, but you are thinking, ok, I have to go to the next step and you go to the next step quick . . . when it works great, when it doesn’t it’s horrible . . . oh shit, what next . . .you don’t have time to regroup.”

As the interviews progressed it became apparent from the detailed accountings of the officers’ experiences that using a Taser is considered a last resort because the officers have received a Taser deployment as part of their training and they know how it feels to be on the receiving end. Officers used verbal commands and drew the Taser as a show of force with hopes of deterring suspects from further combativeness. The participants expressed fear, that if they used the Taser, the agency would not support their use of force. P5 stated the chief of police of the city where he was previously employed told the

officers "If you use threat to handle somebody, you better be ready to ride the wave which will come with it because we are coming after you."

Officers conveyed the publics' negative perception of the Taser is unfortunate and so threatening, just a show of the device will deter most suspects. P9 explained his version of public perception as: "It changes everything . . . it really blew my mind when I saw it happening . . . it was just that psychological effect of what that Taser could do."

One hundred percent of the participants stated the risk of injury to the citizens and the officers was minimal compared to hands on or using other types of weapons. The officers preferred using the Taser to pepper spray and believed the Taser is a good less lethal weapon. In fact, P9 stated "I think it is one of the best tools law enforcement has had in years, probably 20 years, going back to the year it came on the market." P6 professed "it is a controlling tool and if used correctly, it is a very good device."

Theme 2: Psychological Impact

To understand the true psychological impact that a Taser-related death has on the officers, I asked the question "What were your thoughts when you first learned the suspect had died?" P14 stated:

> Excuse my language, it was like oh shit . . . it was sadness for him and his family . . . you know not just sadness because of what we had done necessarily, but sadness that he had to, you know, that he passed away in such a manner . . . I was fearful for my own circumstances, fearful that I was going to be out of a job . . . fearful that am I still going to have my freedom . . . Ahh, I was, I guess more fearful of the circumstances that

happened afterwards.

P15 offered that after the media had the incident on television several times, he had to explain to his son that he was not a crook.

When asked "How did the incident affect your life and family, the officers told sad stories about the stress and damage to their family relationships?" P8 explained as follows:

> Oh, it was very stressful because I didn't think I was going to get indicted . . . there was stress on my marriage, it was stress on me every day, just not knowing for sure what is going to happen . . . I mean the outcome was not ideal by a long shot . . . we had citizens march on us and it was like nobody with the city, really, in any amount supported us.

P5 thought about the question for a few minutes and replied: "When you really break it down and look at it, you were responsible for this guy and something went wrong and it is going to affect you . . . when that hits, it hits pretty hard."

Contrary to the "tough guy persona" that is expected of law enforcement officers, I was successful in getting to the crux of the participants' emotions and personal thoughts by keeping my voice low and sympathetic. The participants in Group 3 used the words anxiety, anger, avoidance, demoralization, fear, guilt, sadness, and extreme stress to describe their Taser-related experiences. I learned officers involved in Taser-related deaths are generally suspended between three and five days while Internal Affairs investigates the incident, during which time the participants experience a plethora of emotions.

The incidents not only affected the officers, the trauma was internalized by their families. Family members were taunted and shamed by the public. Officers cited the media as the primary culprit in creating the stigma that they were the "criminals" when Taser-related deaths occurred. P15 declared "it cost me my marriage" and he shared that he no longer has a relationship with his teenage son. While sharing these facts, the officer became emotional and the interview had to be suspended for a few minutes. P8 exclaimed there was extreme stress on him and his marriage, as he shook his head from side to side and his face flushed, fighting back his emotions.

As the interviews progressed, seventy-five percent of the participants across all groups offered opinions that the Taser itself does not cause deaths, reiterating what they were taught in training. Participants in group 3 fought to make sense of their experiences to get past the stigma of being a bad guy due to the events which occurred leading to the deaths. Although between two and ten years had passed from the time the officers were involved in the Taser-related deaths, I observed remorse, shame, and guilt in every participant in this group. As the officers recalled the details of the incidents and upon describing the outcomes, the officers' body language and facial contortions indicated they had not recovered from the trauma they experienced.

Theme 3: Mental Processes of Taser versus a Firearm

In response to the question, "Do you experience the same mental processes when you decide to use a Taser versus a firearm?" P 2 responded "Absolutely, they both have a trigger and the thought processes are you made me use my weapon . . .

yes, the thoughts are almost exactly the same . . . the end result is the end result, even though it is a Taser, it is a weapon."

P4 had been involved in a shooting and offered the following:

> Since I have been in a shooting, I physically experienced two different sets of feelings and two different sets of things, Tasers versus firearms . . . from my personal experience, when I used me firearm… it felt like my audio was suspended . . . I could not hear when I fired my gun . . . when I use the Taser it seems like it is quickly.

In contrast, P8 gave his version as "I can't say I really feel a difference . . . I mean when you pull a less-lethal you are not expecting anybody to die. P9 explained his thoughts about the Taser versus a firearm as "In pulling a Taser, it is a matter of not using hands . . . it's a hand without having anybody to die . . . if I pull my firearm, in my mind, when I pull my side arm or any firearm, in my mind somebody is fixing to die."

While some of the officers had not been involved in lethal encounters where it was necessary to draw their pistols, most explained the mental processes associated with drawing a Taser are similar, if not the same, as the decision to draw a firearm. P13 stated: "You shoot someone and kill them, technically it's murder. I mean it's a homicide. If I pull my Taser and tase someone, I have just committed an assault. Once I do something like that, excuse the language, but the old shit factor kicks in. P14 suggested the mental processes are a use of force decision. He stated: It's a use of force decision because it's different circumstances when you pull them. If you are pulling a Taser, typically it's not gonna be deadly force . . . typically when you pull your firearm, it's gonna be a force

circumstance." The officers agreed they weigh the consequences of their actions before resorting to use of force.

Theme 4: Perceptions of Training

The questions propounded to understand the officers' perceptions about the Taser training they receive included "How do you feel about the Taser training you received?" and "If you were designing the Taser training course, what would you change about it?" P9 commented changes could be made to training by adding "Scenario based, hands on actions employing the Taser." "I really think that needs to be incorporated more into the training courses." P14 exclaimed "I think it's adequate, I don't know that I would change anything necessarily . . . it's comprehensive enough." P11 expressed the need for more scenario based training using the Taser in close combat.

To the question, "Given your experience with Tasers, do you think it would be beneficial to include stress inoculation training in the Taser courses? If so, why?" P4 stated "No training is bad training." In contrast, P8 shared the following about stress training:

> During the instructor course, we had a deal where he is yelling at us and we were simulating a misfire, and we had to change a cartridge and everything. Basically, what they were doing in that kind of training, they are just yelling at you. Yelling trying to get your decision now . . . you just misfired what are going to do with it? That doesn't really help you.

P10 responded “Yes, there’s no question.” “The initial training, I don’t necessarily believe so. But the follow up training, Ahh, most definitely I would say that it needs to be” included.

Theme 5: Preparation for Injuries

To fully understand the officers’ perspectives about their Taser training, the question was asked, “Given your experience with Tasers, what part of the Taser training you have received prepared you for the outcome of citizen injuries or deaths?” P9 stated “the training does not go much into the psychological effects.” P2 asserted “nothing was offered far as impact to the officer after deployment, there was no training for that at all.” P7 said “Not really. They talk about it, but I don’t think they prepared us in case of a citizen death.” P8, an officer involved in a Taser-related death case conveyed, “No, they didn’t prepare you for the microscope you are going to be under.” P8 explained further, “They don’t prepare you, for instance, this is what is going to happen and you are going to do this.” While P4 said, the existing training prepared them for the possibility of citizen injures because “it is talked about.” In contrast, most officers expressed the need for additional training in the form of scenarios and as P1 said, “what can happen afterwards.”

One hundred percent of the participants underwent the initial 8-hour basic Taser training courses and 4-hour recertification courses as required by their agencies. Research into the requirements of training of both participating agencies showed officers must recertify every two years. In all instances, the basic Taser training is fashioned after the training recommended by the manufacturer, Taser International. P4 stated training

includes “the properties and parts of the device” and “its effects to the human body.” P14 specified they “advise you on the potential for falling injuries, potential for heart related . . . excited delirium injuries.”

Every officer assigned to carry the device was expected to receive a deployment and to shoot their Taser twice during training. Recertification was comprised of Taser International’s updates, risks, policy, and agency guidelines involving children, pregnant women, lesbians, and gays. Ninety percent expressed their desire to receive training for specific types of injuries.

Theme 6: Stress Inoculation

One of the objectives of this research was to investigate the police officers’ perspectives on whether stress inoculation training should be included in Taser training courses. The following excerpt was read to the participants. “The concept of stress inoculation training is based on preparatory reality-based training for using less-lethal weapons. It allows the trainee an opportunity to practice decision making for the use of force, and to experience the physical stress, the mental stress and emotional factors associated with the use of weapons.” The following question then asked was, “In your opinion, do you think stress inoculation training would be beneficial to you in Taser training? If so, why?”

Only P7 thought stress inoculation would not benefit the trainees. The other participants offered the following: P1 said “Yes needed, definitely.” P4 commented that “No training is bad training.” P2, P5, and P6 answered “Yes.” P10 shared “Yes, there’s no question.” “The initial training, I don’t necessarily believe so.” “The more scenarios,

the better off they are. Yes . . . the more training the better, such as more discussions." P12 commented "Not just with Taser training, but with any type of confrontation." While P13 declared, "from my experience doing stress inoculation . . . in order to mimic the stress, they physically exert you . . . get your heart up, you're not thinking as clearly, like you would be in a real stressful environment and they release you into the scenario under those conditions." P 14 explained "I think it would be beneficial. It is very difficult to replicate the stress that you go through whenever you are making those decisions . . . to train someone, I'm not sure what that would look like."

Theme 7: Use of force

Questions asked about using the Taser illuminated the officers' perspectives on their decisions to use force and the circumstances surrounding their thought processes. Police officers had a general idea of the reason they were being dispatched to an active scene and the type of situation they would encounter. By the time they reached the scene, they had already coordinated their efforts with other officers and planned their approach. Officers were fully aware the circumstances they would encounter might become dangerous and they were positioned to act to control the situations. When the officers arrived at the scene, they mobilized a plan and if the suspect threatened the officer, another citizen, or the backup officers, the decision to use force was made instantaneously.

While giving thought to following agency policies on the use of force continuum, P6 stated "your brain just starts functioning to where it is automatic." P5 said "There is a little shaking, and a little bit of adrenaline, that is the response until you get it worked out

to the threat issue that you are seeing and dealing with at that point." Officers agreed by the time they make the decision to use lethal force, they have entered survival mode.

Although the use of force on Tasers differs among agencies, P1 indicated the "Taser is right in line with the use of force continuum." When participants were asked about the use of force policy in their counties, they intimated departmental policies allow officer discretion about their use of Tasers. When a Taser is employed in the line of duty, the incident report must reflect justification for the use of force and the report is filed in the officer's personnel record. Officers declared they would rather talk down a volatile situation than to resort to deploying the Taser. For example, P8 declared "I am more hesitant to use a Taser just because I am a talker and I will try to talk you down." P5 said "Agency policies they don't really restrict us . . . you have to be able to say why." "Whatever you did when you use that Taser make sure that you've exhausted all other means." P13 answered the same questions with:

> What goes through my mind is am I justified in using it, am I gonna get in trouble, is this person gonna sustain any kind of injury? If I pull my Taser and tase someone, I have just committed an assault. Now it's up to either my agency or a group of my peers in terms of whether . . . that was justified . . . that is all rolling in the back of your head.

P5 explained that after he deploys the Taser "Later you ask yourself, is there anything else I could have done. It's just unfortunate sometimes force becomes lethal, it happens." P6 said "when you produce the Taser it is just a show of force. I try my best not to use the Taser at all . . . you don't want to use the Taser on anybody because you

know what the effect is." While P9 explained the choice to use a Taser is that "You have to make that choice . . . whether it is a use of force situation . . . depends on how serious the situation is…it is a mental process."

Summary of Findings

A police officer's decision to use force is predicated by the circumstances presented at the scene. What society does not know is that evidence shows most people have an aversion to aggression and a phobia-level response to violence. However, the officers in this study were dispatched to potentially dangerous scenes where a show of force became inevitable. Officers arrived at the scene to confront an already volatile situation and as they engaged their training and issued verbal commands, the events which unfolded left them no choice, but to draw their Taser to control the suspects. Once the dangerous situations or combative scenes were under control, the officers described making sense of Taser deployments by repeating the details of the incidents over and over in their minds.

Participants made meaning of their actions by thinking back to how the incident unfolded and whether they could have done something different to control the events. They concluded the decisions they made and their use of force actions were justified and precipitated by the suspects' actions. This allowed the officers to continue to believe they did the right thing and only used force as necessary in the line of duty.

Officers avoided deploying the Taser on suspects because they were familiar with the physical effects they experienced during training. P5 shared his thoughts about receiving a Taser deployment during training as "you get put into a position where

you have to use a Taser, you have a sense of the past." The decision to activate the device is a last resort and is used only when there is no alternative. Participants reported the current Taser training is sufficient, although most would like to see more scenario based training included in Taser certification.

Fourteen out of 15 officers thought stress inoculation training segments should be included in Taser training and would benefit the officers by lowering their levels of stress in the field. Taser deployments which resulted in citizen deaths were experienced as trauma. Even after years had passed since the time of the Taser-related deaths, the officers involved conveyed emotions of sadness, remorse, guilt and shame. The psychological impact of deploying a less-lethal device, which turned lethal, was devastating and carried over to the officers' family members.

Chapter Summary and Transition

The obligation to maintain order in the face of adversity is a very serious responsibility assigned to law enforcement officers. The job subjects them to situations where decisions as to use of force must be made instantaneously. In Chapter 4, I present the results from the interviews of 15 officers who had used a Taser in the line of duty. Officers gave full descriptions about their emotions and reactions to using the device on citizens. Officers explained they avoid using the Taser on citizens because they experienced a deployment in training and they know first-hand how it feels. Officers make meaning of their experiences by repeating the events in their minds to determine whether they could have done something different to the control the events without the use of force. Officers involved in Taser-related deaths suffer from extreme stress and the

psychological impact they undergo filters through to their relationships, damaging marriages and children.

In chapter 5, I provide a discussion about how each of the officer's responses were used to interpret the data. Also included are my conclusions, recommendations for future research, and implications for social change.

Chapter 5 – Discussion, Conclusions, and Recommendations

Discussion

The purpose of this phenomenological study was to investigate and understand the "lived experiences" in the first-person perspective of the officers when they deployed a Taser on a citizen. The emphasis was to collect data about the psychological impact of deploying a Taser on a suspect, including unintended citizen injuries, and Taser-related citizen deaths. A second objective was to explore the training received in Taser certification and to determine whether stress-inoculation should be included in training.

This section presents an analysis of the study results pursuant to the research questions and the emerging thematic categories from the officers' perspectives. The chapter begins with a discussion about how officers make meaning of their experiences in their own words. Moreover, verbatim quotes are used to describe the psychological impact of using a Taser on citizens in the officers, the mental processes associated with a Taser versus a firearm, the officers' perceptions of the quality of training, including preparation for Taser-related injuries, stress inoculation, and use of force. Also included are my conclusions, recommendations for future research, and implications for social change.

Interpretation of Findings

In the current state of affairs across the nation, law enforcement officers are being targeted for not treating people fairly (Grossman, 2005). Public comments, demonstrations, and riots, and opposition are plenty regarding how officers are quick to

use force without consideration to the suspect, are very frequent. This research illustrates the officer's thought processes, which shape their decisions about whether to use force and their decisions to use the least level of force necessary to safeguard themselves and citizens. Officers are taught how to respond to dangerous events by undergoing stress while training at the academy. However, no amount of training can prepare an officer for the unknowns which take place as the events unfold once the citizens' emotions escalate.

The officers' perspectives, thoughts and personal accountings of their practices in using a Taser were empirical evidence they take their jobs seriously and they consider every option available to them before employing any use of force method. Officers engage in verbal communication and commands prior to utilizing a show of force. Findings showed every participant would rather talk a suspect down from aggressive behavior than engage in any means of force.

Findings support previous research which shows law enforcement officers prefer the CED to other alternative non-lethal weapons, such as pepper spray (Sousa, Ready, & Ault, 2010). However, officers would rather use a Taser to hands on fighting which can cause citizen and officer injuries in the form of bruising, broken noses, broken jaws, and other physical injuries.

Findings also support research conducted by Stinson, Reyns, and Liederbach (2011) on the LEOs' perception and concern about the public's undesirable view of CEDs. The public fears the use of Tasers and continues to be misinformed due to damaging media coverage. Participants confirmed the positive aspects of using Tasers far

outweigh destructive media and negative public perception. Ultimately, officers still believe CEDs are the safest tool compared to other less-lethal weapons.

The findings in this study contradict comments made by the public that police officers are quick to use force in their dealings with the public. The results showed officers make meaning of their experiences in relation to the use of force and the outcome of the incidents in which they are involved. Their response to violence reflects their training and prior experiences in subduing and controlling resistant suspects with the use of a Taser. Officers confer with other officers on the way to the scene to decide on a plan of action. Many very quick decisions are made to assess the levels of dangerousness pursuant to what they find already in progress at the scene.

The officers see the Taser as the best tool on the market because it allows them to take quick control of potentially dangerous situations without getting hurt and without them having to hurt a suspect. P11 indicated, “In all honesty, the Taser is the best because it’s not gonna hurt them . . . you can go hands on and they’d be black and blue and bloody . . . cracked bones, cracked noses.” However, the policies on the use of Tasers varies among law enforcement agencies. For example, the Galveston sheriff’s office allows officer discretion in utilizing the Taser and their department has few, if any, officer injuries. Another local law enforcement agency requires officers to go hands first before transitioning to the Taser (Constable Jimmy Fullen, personal communication, July 17, 2016). Yet, reliance on the Taser has its faults.

P11 mentioned, “Sometimes you go to pull that Taser thinking you’re gonna get the . . . psychological reliance and it doesn’t work.” Most officers stated problems with

deploying the device arise from being too close to the subject and not being able to effectuate a deployment. The participants preferred activating the Taser to using hands because it avoided the possibility of being hurt by the suspects. Observations indicated the officers worked to justify their use of the Taser in their minds, as "just doing their job."

The majority (14 out of 15) of officers thought the Taser training they received was sufficient in terms of learning about the nomenclature of the device, guidelines set out by Taser International, and agency policies. Fourteen out of 15 officers indicated a preference for more hands-on scenario based training that addresses transitioning from hands on to the Taser and from the Taser to other means of control. Fourteen out of 15 officers gave an accounting of Taser failures, which in their opinions could have been avoided with more experience using the Taser and scenarios based training. The younger officers appeared to have more Taser failures due to inexperience with deployments. Only 1 out of 15 officers had not endured a Taser failure. Taser failures were attributed to the clothing worn by the suspects, lack of making full contact with the large muscle groups, and dead batteries. Other failures were a result of the subject removing the probes or running away from the probes to the point they were dislodged.

Officers conveyed they do not feel sufficiently prepared by the existing training for the magnitude and seriousness of potential citizen injuries and deaths. Although, current training suggests the officers contact Emergency Medical Services (EMS) to remove the probes after activation, several officers thought it best if they were

trained to remove the probes. P9 indicated removing the probes immediately after handcuffing the suspect would diminish the "psychological effects of the trauma associated with lying on the ground with the probes" embedded in their bodies. Current training does not address specific injuries or include preparatory segments about what to expect in the event of a serious injury or citizen death, nor does it address how to handle the various potential injuries.

Findings demonstrated law enforcement organizations are not utilizing options available to prepare officers to become resilient against the trauma associated with potential CED deaths. Police officers received resilience training during the initial police academy training to prepare them for using lethal force. However, because CEDs are a less-lethal weapon, Taser training does not incorporate desensitization. Police training academies develop their training with the intent to mentally-condition trainees against the instinctive aversion to killing (Grossman, 2008). The purpose is to effectuate operant conditioning, which is intended to serve as stress inoculation and mental preparedness for using weapons in life or death situations (Grossman, 2008). When an officer pulls a firearm, the realization that an incident may become lethal is instantaneous. Actualization of defensive actions is immediate (Broome, 2014) and the emotional response is intense. When an officer pulls a Taser, the realization is that the device is not lethal and little other defensive action is required. It remains unclear whether the resilience training received in lethal weapons training transfers to situations involving Taser-related deaths.

On the question of whether the mental processes associated with less-lethal devices was similar to the use-of-lethal weapons, the data was contradictory. Several of

the participants responded “yes and no,” alluding to their thoughts about drawing Tasers verses firearms. P8 had not used his firearm in the line of duty. P2 and P11 said they believed the mental processes to be the same. P12 mentioned the processes were almost the same. P4 has been involved in a shooting and believed the mental processes were different. The responses were a result of each officers’ perception about where the Taser lies within the use of force continuum.

The Taser was added to the use of force continuum in law enforcement venues as a method of providing officers with a means of controlling perilous situations while minimizing injuries to officers and citizens. Officers could not predict when the results of using a Taser might become lethal. The physical reaction of using a Taser was like the physical reaction when drawing a firearm. However, when presented with eminent danger, the most obvious mental process in drawing a Taser or a firearm was to control the outcome.

The results of this study confirm previous findings, in that the deaths associated with Tasers do not stem from the actual deployment of the Taser current (Bozeman, Teacher, Winslow, 2012; Dawes, Ho, Reardon, & Miner, 2010; Ho, Dawes, Chang, Nelson, & Miner, 2014; MacDonald, Kaminski, & Smith, 2009). The officers’ portrayals of the fatal incidents referred to in this study, indicated the deaths did not result from the Taser activation. Internal Affairs investigations showed four of the deceased citizens expired from excited delirium induced by cocaine and other drugs, and one suspect died from the injuries sustained when his head contacted the paved street.

In a study conducted by Broome (2014), results showed officers involved in gun-related shootings experienced disruptive emotions in the aftermath of using deadly force. The participants of Broome's study indicated they changed as individuals, their lives changed, and disruptive feelings were not completely resolved. It is unclear what the emotional response is when an officer chooses to pull a non-lethal weapon and his choice becomes lethal.

The experience of an unintended CED-related death was devastating to the officers involved in this study. The officers portrayed experiencing unimaginable personal stress, and extreme stress on their marriages and their families. P15's marriage did not survive the stress and stigma of being labeled a murderer. Moreover, he no longer has a relationship with his teenage son, though the incident occurred in 2010, when the son was very young. No amount of training can fully prepare an officer for the trauma, public scrutiny, and stigma they will endure during Internal Affairs investigations or post-incident. P14 stated he could not return to a normal life.

The sample in Group 3 belonged to a very small group within the population of officers that had deployed a Taser in the line of duty. Their experiences were unique because when they drew the Taser, they had chosen a less-lethal weapon, not anticipating that their choice would become lethal. In Broome's (2014) study, officers had trained well for the day when they might have to shoot a citizen; yet, they were not prepared to face the aftermath. My observations confirmed Broome's findings, in that the five officers in the study who were involved in Taser-related deaths were not prepared for the trauma and scrutiny they faced in the aftermath. The officers relied on the fact that the

training they received was correct in labeling the Taser as a safe tool; yet, the deaths lead to severe trauma in the officers and their families.

Officers indicated they felt abandoned by their law enforcement agencies because after the investigations, the agencies did not say one word to them. P15 indicated he was treated as if he had been the criminal and had done something wrong. When the cases of the officers in Group 3 went before the Grand Jury, the waiting aspect was by far the most difficult in their ordeal. The officers indicated the stress they endured was most significant during this phase of the investigation. When the Grand Jury returned a decision of "no indictment," each officer said they experienced a great sense of relief. No one from the agency contacted them, they were just assigned back to patrolling without a word from their organization. The lives of these five officers had changed forever and no one in the agency seemed to notice.

Limitations of the Study

The design of this study called for naturalistic settings, which in this case would have been out in the field with police officers while they were fighting crime. I suggested a ride-along and was told by the sheriffs that this would not be allowed. Therefore, the interviews used to collect data were conducted in a conference room or a private office and may have created unintentional bias. Another limitation is I do not possess practicum in law enforcement and this may have prohibited a thorough understanding of the agency policies and lived experiences of the officers.

It is important to mention I disclosed to the officers that my husband was a police officer at one time. My disclosure was an attempt to promote dialogue and help the

officers relax. I wanted the officers to know I was familiar with the stress they endure on an everyday basis, and I was sympathetic to their experiences. However, this may have created unintentional bias.

The officers' renditions of their experiences may not have been accurate given the information sought was about the psychological impact of Taser utilization. In the case of P6, his behavior contradicted the verbal accounting of the Taser-related death in which he was involved and the aftermath. Although I included observational notations contrary to the officers' declarations that he was not affected by the Taser-related death, the results may be inaccurate.

In addition, the behavior reported by the officers reflected their own perspectives, thoughts, feelings, ideas, and reactions, which may not truly reflect their inner most thoughts and emotions because they may have been reluctant to admit weakness, feelings, and emotions. Still another limitation was many of the interviews were conducted in the employers' offices and the participants may have been reluctant to convey their true emotions and feelings. In contrast, when officers were interviewed in my personal offices, they were forthcoming with details about the residual emotions of using a conductive energy device on citizens and especially those involved in Taser-related deaths.

Recommendations for Future Research

Specifically, the study revolutionizes our understanding of the psychological effects which using a conductive energy device had on the police officers. The findings highlighted the need for further research with larger samples and with law

enforcement organizations located throughout the United States, which might provide generalization and transferability to other situations.

As the officers enumerated their lived experiences, it became apparent they learned to validate their use of the Taser in terms of how much force was necessary to stop an aggressive suspect, especially in those incidents where a citizen death occurred. This allowed the officers to achieve a mental balance between being the good guys and the publics' negative perception officers are quick to use force. The topic arising out of these findings is the officers' perceptions about how they justify being the good guys versus being the bad guys because they had to use force.

Findings revealed the Taser can be and is often used by officers as a mere show of force to deter suspects. Officers stated the minute people see a Taser they calm down. It would be noteworthy to investigate the public's attitudes towards conductive energy devices to determine if the innate fear of electricity is the deterrent or if they fear the muscular incapacitation.

This research expands the concept of stress inoculation, in that the officers believe they need to be better prepared for the mental processes associated with Taser induced serious injuries and Taser associated deaths. The goal of stress inoculation training is to prepare an individual against psychological impact and trauma by practicing with scenarios-based training for the day when they may need to use lethal force. Certainly, the addition of SIT segments to current Taser training would benefit officers in preparing them for CED incidents which become fatal.

Although officers receive sensitization in weapons training, the question remains whether the training received transfers to situations involving Taser-related deaths. Further research needs to explore this phenomenon.

The findings also direct one to the participants' perceptions that law enforcement agencies do not offer moral support to the officers. Participants in this study articulated a deficiency in organizational support when events culminated in disastrous outcomes. The officers indicated there was a severe lack of agency support. This lead to disheartening emotions and the illusion that although they were just doing their job, no one cared about them. This factor creates a distorted interpretation in the officers' minds because they had to work at proving to their families that they were still the good guys. Whether this aspect of the officers' perception influenced how they perform in the field must be clarified with future research.

A question which arose as the results progressed is can organizational support help alleviate the pivotal familial tension generated by the fatal outcomes of Taser-related deaths. Only P15 reported that five counseling sessions with a psychiatrist were required by the organization. Four officers implicated in the Taser-related deaths elaborated their families suffered extreme stress during the Internal Affairs investigation and while the Grand Jury considered a guilty or not guilty conclusion. P15 asserted the stress "cost me my marriage." A subject for further research in this regard is to the degree that the officers' families might benefit from stress management through mandatory familial counseling sponsored by the organization.

Yet, another question which arose was can the officers' perspectives that no one cared be changed? This question should be examined by performing research with law enforcement agencies that mandate counseling, to determine the impact of counseling on the officers and their families. Moreover, all the officers in this study believed and expressed their opinion that all training is good. P1 offered, the mere inquiry method of the interviews I conducted was beneficial to the officers because it meant somebody cared about their personal experiences.

Implications for Social Change

The results of this study suggest significant findings in terms of global social change from the premise the current Taser training may not be legally sufficient. To be legally sufficient training must contain stress, decision making, and shoot don't shoot scenarios (Tuttle v. Oklahoma, 1985). Pursuant to the officers' descriptions, the current Taser training courses for the end user do not include enough shoot don't shoot scenarios to the degree the officers feel prepared for Taser-related deaths. The question then remains, is Taser training legally sufficient? If not, it should be restructured to meet requirements as stipulated in Tuttle vs. Oklahoma, (1985)

Consequently, the implications for police psychologists includes the need for development of stress inoculation segments for addition to the current Taser training. Officers need to be better prepared for Taser-related serious citizen injuries and potential fatal incidents. It is predicted the findings from this study will instill global social change, in that law enforcement agencies need to implement new segments in Taser training courses to include stress inoculation.

Every law enforcement organization and its management, should strive to stimulate a positive perception and an environment that demonstrates agency support to the officers, regardless of the size of the agency. This can be accomplished by developing a critical incident stress management program which concentrates on reducing officer stress and familial counseling following critical incidents.

Furthermore, this study has matriculated social significance because it has afforded a better understanding of the law enforcement officers' needs with respect to Taser training and professional development. Officers feel undervalued by their organizations and this must be given priority consideration by the agencies, administrators, and supervisors. Officers need to feel appreciated by their law enforcement agencies and by society for putting their lives in jeopardy to foster a law abiding and safe society.

Summary

In this chapter, I presented an interpretation of findings based on the participants' responses to questions regarding the use of Tasers and their perspectives about training which became the empirical evidence in this study. No amount of training can prepare officers for the unknowns which take place once they arrive at a scene. There are many instantaneous decisions made when an officer chooses a nonlethal device to control a resistant citizen. Officers prefer not to use a Taser on citizens, and although they continue to be concerned about the publics' perception about Tasers, they believe the device is safer than hands on combat.

Fourteen out of fifteen officers stated stress inoculation segments should be added to Taser certification training because they do not feel sufficiently prepared to handle the magnitude and seriousness of potential citizen injuries and deaths. Officers indicated the mental processes involved with drawing a Taser are like the mental processes of choosing to use a lethal weapon. Officers could not predict when using a nonlethal weapon might become lethal. The experience of an unintended Taser-related death was devastating to the officers involved in this study. Officers involved in Taser-related deaths felt they had been abandoned by their agencies and no cared that their lives had been changed forever.

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Appendix A:

Interview Protocol and Questions

1. Arrive at location with plenty of time to set up the logistics of the office where interview will take place.
2. Choose an office with little distractions.
3. Test recording equipment and place instrumentation where easily accessible.
4. Review the information sheet with participant.
5. Address the following:
    - the purpose of the interview;
    - terms of confidentiality;
    - duration of interview (1 to 1 ½ hours);
    - indicate how to get in touch with you if they have questions after the interview; email Yoewaters@aol.com or cell phone (713) 854 1530
    - Ask if they understand and whether they have questions before you begin.
6. Obtain informed consent and begin with the following questions to establish rapport.

Questions to Establish Rapport:

- Please describe, in as much detail as possible, what it is like for you to be a law enforcement officer.

- How long have you been an officer, and what are the things you most like about your job?
- Please describe the things you most dislike about your job?

Taser-related experiences:

- What is it like for you to use a Taser on a person?
- How do the agency policies affect your personal use of the Taser?
- Please tell me, in as much detail as possible, about a personal Taser-related incident that remains foremost in your mind.
- Please describe your experience in a Taser-related incident in which you were successful in securing compliance from a resistant citizen.
- Please describe your experience in a Taser-related incident in which you were not successful in securing compliance from a resistant citizen.
- How did the incident you just described personally affect how you now use the Taser (Prompts: thoughts, feelings, beliefs)?
- What were your personal thoughts after using the Taser on a suspect?

Questions regarding Training:

- In as much detail as possible, describe the Taser training you received. How do you feel about the Taser training you have received?
- Given your experience with Tasers, what part of the CED training prepared you for the outcome of these incidents?
- What would you change about Taser training?

- The concept of stress inoculation training is based on preparatory reality-based training for using lethal force and weapons. It allows the trainee an opportunity to practice decision making for the use of force, and to experience the stress, the mental, physical and emotional factors associated with the use of weapons and the act of killing. In your opinion, do you think stress inoculation training would be beneficial to you?

Questions regarding Taser-related Citizen Deaths

- Have you experienced a Taser-related citizen death? Please tell me, in as much detail as possible, about that incident. (**If no**, skip to the next two questions.)
- How did this unintentional death affect you personally?
- What were your thoughts and experiences with this incident (self-criticisms, self-talk, emotions, feelings)?
- How has this experience affected the way you do your job (Prompts: beliefs, thoughts)?
- Taser International, Inc. is producing a new Taser – The New Generation X3, which has three sets of probes that can be fired simultaneously. How do you think this will affect you or how you do your job?
- Did you experience the mental processes associated with using lethal-force when you decided to use a less-lethal use of force, such as the Taser?

Closing Questions

You mentioned …. please tell me more about it (Use this as a prompt to clarify data).

- That covers the questions I wanted to ask, do you have any questions or is there anything you would like to add?

Appendix B:

Matrix of the Structure of Emerging Thematic Clusters

Participant	1 – Lived Experiences	2 – Taser-Related Death	3 -Mental Processes of Taser versus firearm	4 – Perceptions of Training	5 – Preparation for Injuries
1	"I have a Taser cam that I don't really like" "gave us the option that a Taser is going to be more effective	NO	"Almost the exact same process" "Yes and No"	Initial is 8 hours 4 hours to recertify every year Use of force policy on Taser	Need more training with scenarios "Need psychological effects"

	than basically getting hurt” Galveston county policy allows officer discretion Does not like to use drive stun Gets job done without officer injuries			Learned to pull probes Received Tase & drive stun Accidentally Tased by another officer “Training does not go into psychological effects”	Need more on the effects of what can happen afterwards Need training on effects of Excited Delirium “Nothing really prepares you for what a lot of us encounter”

	Gets mad when Taser does not work Becomes upset because failure means he has to go hands on Use caution w/water Likes Taser less injuries			When to use the Taser and when not to use it What it does to a human Tased a fixed object Call EMS to remove probes Need more training	No training to prepare for injuries or a Taser-related death

	Officers scared to use Taser due to policies Gets mad when Taser does not work Upset when he has to use hands on First render aid				

	Call EMS to remove probes Reluctant to use Taser Do not want to be a rogue officer due to stigma Use of force module is used and report has to be filled out				

	Use of force goes into their file				
2	Injuries – "It has not changed how I use the Taser" "I stay away from lethal areas whenever I deploy my Taser. Just making sure I am not doing	No Taser-related death	Same thought processes? "Absolutely, they both have a trigger and the thought processes are you made me use my weapon. Yes, the thoughts are almost exactly the same.	Received basic 8 hour Recertification was 4 hours Learned proper use Nomenclature (its parts)	"Nothing was offered far as impact to the officer after deployment, there was no training for that at all." No training about effects to citizens

	anything around the head or the groin” “I feel guilt” “Not injuries from the Taser itself, injuries from maybe falling down, couple of minor injuries		The end result if the end result” “You’re in a hostile situation and all these things and emotions are happening and after the fact your kind of think… I just had to do that to another human being, you know you feel sad”	Received deployment How to deploy it Effects of deploying it What to do after the fact Which places to take the	

	"I didn't like the fact that it happened" pg. 3 "I am very careful around swimming pools" "There is a guilt side that we have had to use a weapon on that individual."			Citizen Training is sufficient Got the message across that it hurts	

	"Then there is that after the fact …. There is some level of guilt that you actually had to deploy it on somebody and injured that person" "Unfortuna tely officers, we joke about things, I guess to let it out"				

	"Just a mechanism to get it out"				
3	"Change the cost of the cartridges" "If someone forces us to use lethal force on them, they made a decision before hand to try to hurt us, to kill	No Taser-related death		Training is good, it is beneficial, it is a tool, it is not the tool. Call EMS "Policies mimic Taser Internationals' policies"	"There is a medical portion of Taser training"

	us, or seriously injure us." "Make sure you get a good deployment" "Where the threat of serious bodily injury is present … officers are forced to use their hand guns or other weapons."			"Don't deviate from any of the guidelines...because in reality that is what is going to cover you" "It's the worse 5 seconds of your life"	

	"I don't know of anybody that says I want to go out there and I want to shoot all these people" "It's the worse 5 seconds of your life" "I apologize to them ahead of time because I know it hurts"				

	I" am nervous for them as far as feelings go" A little nervous for them, about how they are going to react" "some people yell louder than others, some curse more than others, some				

	people don't say a word when they get Tased. Males yell a lot more than the females and that is something we have noticed." "I don't let things affect me" I do everything the same				

	"You can't let this stuff get to you"				
4	Policies aren't so rigid We may not do things exactly to policy because every situation is different"		"Sense of relief" "The Taser is different for me though, because I know the end result isn't going to cause death."	Taser training is OK Training goes into the areas of what not to do. No head, face, groin, sensitive areas	Believes training prepares for Taser-related death because "it is talked about" … "the Taser itself is not what causes death."

	"The policy is there to protect us and the citizen" "There to protect the agency" Agrees with policy "We make quick decisions" "Sense of relief"		Not the same mental processes as firearm "Since I have been in a shooting, I physically experienced two different sets of feelings and two different sets of things, Tasers versus firearms."	"No training is bad training" Change "actually having to be Tased… I think the training is above and beyond"	

	"Prevents having to fight somebody to get something accomplished" "I am not going to get hurt" The incident is over You get your adrenaline going		"From my personal experience when I use my firearm…it felt like my audio was suspended…I could not hear when I fired my gun." "When I use the Taser it seems like it's quickly." "The audio thing, the adrenaline,		

	"What actually happens is I feel relief, because the incident is over" "Making sure that I hit the target" "We don't have a lot of time to evaluate every situation before we do it		it is a different type of feeling." "To me, it is a relief whenever I use my Taser because it's over."		

5	"It is not the end all be all method" "I always think I hope this works" "There is a little shaking, and a little bit of adrenaline, that is the response until you get it worked	"I had an in-custody death. Not from the Taser, but the gentleman died of Excited Delirium." "I was fine until the county showed up." It was an in-custody death, so it was investigated" "They show up and ask "OK who was	"Later you always ask yourself, is there anything else I could have done." "It is just unfortunate sometimes force becomes lethal. It happens." "I detach myself"	"I feel confident that it has taught me how to correctly approach people with a Taser" p 1 "I would train officers not to have so much reliance on the Taser"	"If you Tase someone, they are injured" "No, not at all" No part of training prepared him for a death "We had officers that are involved in

	out to the threat issue that you are seeing and dealing with at that point." "When it fails it mentally stresses the officer" "You get into a position where you have to use a Taser, you	involved" and our response is "OH," you know, it starts to click." You realize "Oh my God, I am being investigated. "when you really break it down and look at it, you were responsible for this guy and something went wrong and it is going to affect you"	"I will address emotions later after the call, when it is appropriate" "departmenta lize everything and put it aside otherwise you lose your objectivity." "Once you get emotional it will cloud your	No in-depth training on what to expect No part of training prepared him for a death "We had officers that are involved in bringing us in and telling us a lot of what is going to happen"	bringing us in and telling us a lot of what is going to happen" "This is what you are going to feel, this is what it looks like. Do not talk about specific injuries

	have a sense of the past" "now you are stressed because of the over reliance on the Taser" "Officers are aware of the public, everybody is a suspect"	"When that hits, it hits pretty hard."	judgment." At that point you enter survival mode." "Oh God, I am one of those guys now. " "That fight should never have gotten to that point, but it got to that point because of those restrictive policies."	"This is what you are going to feel, this is what it looks like. Do not talk about specific injuries Injuries covered in the topic	Injuries covered in the topic

	"Our policies are structured there is a lot of officer discretion" Fear of no departmental support – their Chief said "If you use threat to handle somebody, you better be ready to ride the wary which will come		Chiefs' comments about coming after you- no departmental support. "What is going through your mind is this is how the process is played out." "When it is all over, you are		

	with it because we are coming after you."		required to talk about it" "The whole, wait until my attorney gets here, like you see on TX, that is just TV stuff when it comes to Internal Affairs"		
6	I did receive 3 hits actually "It is brutal"	Yes "Like in my incident, I did not get stressed until afterwards"	"I felt bad" "I blocked it"	"There is nothing I would change about it"	No preparation in training for possibility of deaths

	"It is a controlling tool and if used right, it is a very good device" "Your brain just starts functioning to where it is automatic" "don't want to use the Taser on anybody because	"I did not want them stressed about it." "I avoided talking about it and blocked it" The department did not call him to tell him what would happen or what he needed to do. "I mean internal affairs investigated it and the EAP called once and	"I did what they tell us to do. Leave your job in your car and I did not discuss it with them"		

	you know what the effect is” “when you produce the Taser it is just a show of force” “I try my best not to use the Taser at all” “The Taser is like a last resort whenever	the conversation lasted about 60 seconds. All they said is, if you need us we are here.” “I try not to think about it” “I put it out of my mind” “When I see his brother … it keeps me on high alert”			

	commands just do not work” “There’s a lot of options that you have to process in your head” “The Taser can be very effective, but sometimes it doesn’t work”	“I don’t even think about it anymore. Because the circumstances that led up to the incident, it was not my fault. It was not the Tasers’ fault. He had been hyped on stuff all night long, so he just added to his misery.” “I just can’t keep going through that same thought in my head”			

	"I am at the schools now, so I do not wear a Taser anymore. I still have it, and wear it on extra jobs on the weekends"	Observation: This man stated that he did not allow the incident to affect him, but during the interview he looked down and whispered about the death, and I interpreted it as shame and guilt.			
7	"I know at that time when I pulled my Taser out, you know, what if I fire it at someone that does	NO	No, because we use the Taser in our daily work.	8-hour course Go over the rules and policies of the Taser	"Not really. They talk about it, but I don't think they prepared us in case of a citizen death"

	not need to be Tased?" "It didn't really affect me too much because we were in a controlled environment" "As far as you know, any type of mental or thoughts that came to mind, I don't			Where to send then Where you can actually use the Taser "You actually have to get Tased before you are permitted to carry it" "There is a lot of information	

	think I, I do not remember having any questions about what is going to happen if I do this or what is going to happen after I do this." "I think in a closed environment it is easier" "You are not going to want			that is explained that is useful" "They tell you it's pretty much safe" "if you see this person has some health issue and you see it could, it could interact with the Tase, then pretty	

	to use it because, I mean you know how it feels" "The Taser is a safe controlling tool. So, if you use it on a daily basis there is no stress." "Pretty much, our policies to using the Taser are you write a			much you don't use it." "I think the only thing I would change, is make it a little bit longer" "more practicum on the use of force" "more use of force scenarios"	

	report and tell how the use of force is forced"				
8	"It is a unique experience" "It hurts a little bit" "You just lock up" "like a full cramp where you	"I mean the outcome was not ideal by a long shot. "It was not even in my range of rough that the outcome would end up the way it did. " "We had citizens march on us"	"I don't think you are necessarily going to refer back to that in a stressful situation or know what you are going to do when you are out there" "It was very stressful because I	"Law enforcement as a whole could use a lot more training" Referring to death "Back then we had no Taser training at all"	They don't really "No, they didn't prepare you for the microscope you are going to be under" "I mean the outcome was

	just…can't do anything" "I have been drive stunned by an officer by accident" "Three of us got Tased by the same trigger, because he was trying to drive stun someone and it shocked all of us"	"Nobody with the city really in any amount supported us" "There was nothing from anybody. No word from the agency, we were just back on the street" "They don't go through it; they don't prepare you for it"	didn't think I was going to get indicted" " "I have never had to shoot anybody; I have had to pull a gun" "I can't say I really feel a difference … I mean when you pull a	"I have had an Excited Delirium course since then" "I mean if you are telling me in class what is going to happen and you are actually going through it, it is totally different"	not ideal by a long shot. "It was not even in my range of rough that the outcome would end up the way it did. " "We had citizens march on us"

	"It was horrible" "There is nothing that I really disagree with on the policy" "I am more hesitant to use a Taser just because I am a talker and I will try to talk you down."	"They don't prepare you for instance, this is what is going to happen and you are going to do this" Basically your career is on hold" "It didn't hurt me financially. I get a paycheck every two weeks."	less-lethal you are not expecting anybody to die" "I guess it would be different to actually to pull the trigger"	"I don't think that is something you can see in training" "then you revert back to training"	"Nobody with the city really in any amount supported us" "There was nothing from anybody. No word from the agency, we were just back on the street" "They don't go through

	"You do have an "Oh Shit moment" but you are thinking, Ok I have to go to the next step and you go to the next step quick" "You don't have time to regroup"	"There was stress on my marriage, it was stress on me every day, just not knowing for sure what is going to happen"			it; they don't prepare you for it" "They don't prepare you for instance, this is what is going to happen and you are going to do this" 32 hours of Taser training I thought it was adequate

	"I try to make sure it is a good Tase" "I mean the poor guy, it was not his fault, but he got a 29 second continuous cycle while we cleared everything out" He was fine, his response				How to use it Benefits of it Downside of it Recertification every year or two Taser instructor is 2 days "There isn't anything that

	was “Fuck that hurt” “I try to make sure there is a good deployment” “I am not quick to Tase somebody” “As far as critiquing my own self, I probably				I can really think of. “ It is fine Budget constraints

	wait too long because I try to make sure that I say, ok this is my option” “Cause I know it hurts” “Our policies are pretty straight forward”				

9	No in-depth in training "upsets me..." Policy on removal of probes varies "A lot of supervisors don't carry Tasers… they have no idea what the effects of the Taser are….and they	No Taser-related death Killed a man with firearm (Looks down, swallows, long pause, had difficulty speaking about the incident. Facial expressions interpreted as remorse, shame and guilt).	Same mental processes? "Yes, in my mind they are" "In pulling a Taser, it is a matter of not using hands" "It's a hand without having anybody to die"	"Recert every year, just to keep an update" No water No stairs No in-depth training "Scenario based, hands on, actions employing the Taser…not done in the end user course. I	

	simply use policy to decide what is correct or incorrect" Officer in training told him after being Tased "I will never use this on anybody. I'll never be able to do that to somebody."	"If I have something that I need to use to guide you and to calm you down, or into to doing what am telling you, I would much rather have that outcome" Counseling is "not mandatory in any agency that I know of" "The mental stress you are going to be under is "Oh my God, I did my	"If I pull my firearm, in my mind, when I pull my side arm or any firearm, in my mind somebody is fixing to die"	really think that needs to be incorporated more into the training courses" "Couldn't hurt to throw in transferring from Taser to lethal force, lethal force to Taser" "If the officer were to	

	He was standing and his hand was shaking like a leaf. He just was terrified of it" "Cops have this persona…we have to live under that we are the tough guys…when they employ it on the street, the same things applies"	job, and now I am going to lose my job" "You worry about your family, are you going to be able to support them" "How is it affecting my family" "You almost shut down"		remove the probes, relatively quickly after placing them in hand cuffs, or bringing them under control, it drops the psychological effects on them laying there for 20 minutes having probes in em" Removing probes "allows the	

	"Other cops will look at them and see they are having an issue and they say Oh he is not a cop or he can't handle the street. You need to remove him from it" "Policy plays a big part and it plays a big	"Don't want to talk about it" "Won't explain how they're feeling to their wives" "All you are really doing to them is pushing them away and you are not allowing them to be part of the solution"		officer to evaluate how seriously the injury is if they're injured and whatever effect the Taser had on em"	

	part in the back of their minds” “So, we end up questioning whether we do or whether we don’t” use the Taser. “Can mention that it is not pain they are feeling”	“All you are doing now is sitting there self-medicating”			

	“For you to force me to do something that I don’t wanna do, you put me in a position where I no longer have control” “For me to do that to you, in our mind you have to hurt me to make me do that”				

	We ask "are you injured? NO, So, I didn't hurt you" "It is a mental, you are forcing me to do something I don't want to do. For you to be able to do that to me, in our mind you have to hurt me."				

	"Effect the Taser has on the general public is so horrible, it is almost indescribable" "the minute people see I have a Taser…all of a sudden they calm down" "it changes everything…it				

	really blew my mind when I saw it happening” “It was just that psychological effect of what that Taser could do” It changed “how I approach them”				

	(Changed approach, changed use of force) "You have to evaluate very quickly. You're never gonna get the full spectrum of what's happening until it is all over with." (Use of force decisions)				

	"You have to make that choice… whether it is a use of force situation … depends on how serious the situation is" "You have very little information and very little time and the decisions we				

	make will affect peoples' lives." "It is a mental process" (Interpreted as experience allows for better evaluation of situations).				
10	"He knows what went wrong, he knows how it feels because he's	"I've been involved in two"		Properties and parts of the Taser	

	been exposed to it like this person has been exposed to it" (Used in court as a defense.) "When we go to court and you say he has been exposed to it, he understands the consequences or how it hurts, and it personalizes it."	"I reviewed the La Marque case" "I was brought in by the County's legal department as the instructor and technical expert in deployment" "there were twelve officers involved" "there was a lot of things that occurred very		Effects to the body 1st hand knowledge w/exposure What to expect Agency policies Exposures are video recorded Videos saved to officer file used for defense	

	"When I first got trained, it was anybody that died within a certain time, one or two years from exposure, the Taser was the problem." "It was the officers were wrong and caused this, and basically	rapidly in a short period of time" "the Taser was dropped on the ground and the cam continued to run"		Officers exposed to all devices Ever evolving training "Continuing training… emphasize the root lying in the fatalities that occur" Recertification includes Taser	

	that was what they titled it” “You know; we’ll use it where just the device… is usually enough to deter a person” After Tasing a man - “As far as feeling sorry for him, I didn’t”			Internationals’ updates, scenarios, and risks (not holding Taser correctly will zap the officer) (policies are guidelines) “There are certain scenarios where you can’t use, you don’t wanna use.”	

	No it didn't affect me because it was at this time it was the best option for what I had" "once the deployment is over, it's over, it's done" "most officers are going to weight their			"follow guidelines with LGBT and children"	

	options on the way to the call” “To most officers, deadly force or using their weapon is not the first option” “using the Taser allows us to put a lot more distance between us and the suspect”				

	"ultimate decision is that we are going to get him under control" "A lot of officers just don't have combat or military experience" "There is a lot that goes through your mind in seconds. You				

	have to be able to transition."				
11	"When it works great. When it doesn't it's horrible" "Oh shit, what next" "most of your deployments are gonna be at close quarters,	No	"The thought process is gonna be the same." "It's gonna be, you know, do or don't because what Is' look for is preferably both of us go home… if we can go and make that happen, I've done good"	"Taser training is good" "more training where you are hand on…in close quarter combat. It's where I think a lot of unintentional injuries occur to officers"	

	close range, cause we are at battle." "society rules because right now they are so against the Taser because people have been hurt" "I can Tase somebody and if the Taser is on 5 seconds, the Tase is over. No one got			"we go a lot into the possibility of injuries" "I'd be nice if Taser were to come out with another, like a training gun" "It's just if you minimize the electricity in it to	

	hurt, nobody suffered, no more nothing” “In all honesty the Taser is the best because it’s not gonna hurt them” “you can go hands on and they’d be black and blue and bloody…cracked			where you see that you get hit with it” “I would like the hands on combat course…that kind of training in Tasers”	

	bones, cracked noses” “I don’t feel bad or think I shouldn’t have done it” “it’s just another tool” “you forget that you have other arms and sometimes you go				

	to pull that Taser thinking you're gonna get the … psychological reliance and it doesn't work" "once it's in your hand, you forget other soft hand techniques" "I wish society would realize that they				

	are great tools and that they are great for us" "it prevents the suspect and us from being injured				
12	"I really like it because you know it can completely immobilize a person, if used successfully"	NO	"I really do because with the Taser … same just like I was trained to engage the firearm" "Only difference is	"It was good; it was thorough" "We received training on Excited Delirium, which is	

	"I'm glad it worked" "I don't pull my gun as much as I would a Taser because I use more hands on period" "I believe the Taser to me is almost like a firearm, to be used		knowing that my Taser is less-lethal. That I can pull it if I am not fixing to kill a guy" "with the firearm the only difference is its life or death period" "the thoughts might not be quite the same, but it's the	a lot of what causes the deaths whenever Tasers are deployed" "I think we are pretty well prepared"	

	as a last resort to everything else"		same outcome is what you want"		
13	"you shoot someone and kill them, technically it's murder. I mean it's a homicide" "If I pull my Taser and Tase someone I have just committed an assault"		"almost the same process as if you are going to pull your pistol and engage in deadly force" "You see the threat and perceive the threat and … a lot of subconscious processes and	I think it is fine "probably incorporate more…scenario type training" "more like shoot don't shoot type situations as far as the Taser goes"	

	"once I do something like that, excuse the language, but the old "shit" factor kicks in" "I wonder, was I justified…how am I gonna articulate this…how am I gonna write this report?"		checklists going on and you're engaged" "It's very similar. " "I won't say they are exactly the same, there is a little bit more to a lethal force encounter" "you shoot someone and kill them, technically it's		

	"instead of fighting this person…we were able to subdue him with the Taser and the injuries are negligible" "He wasn't injured and we weren't injured" "Get him in handcuffs with minimal		murder. I mean it's a homicide" "If I pull my Taser and Tase someone I have just committed an assault" "once I do something like that, excuse the language, but the old "shit" factor kicks in"		

	injures…or injuries to ourselves" "it is an awesome tool. It's just a very effective tool" "for certain situations it's extremely useful and it's extremely valuable, but not all situations"		"I wonder, was I justified…how am I gonna articulate this…how am I gonna write this report?" "almost the same process as if you are going to pull your pistol and engage in deadly force"		

			"You see the threat and perceive the threat and … a lot of subconscious processes and checklists going on and you're engaged"		
14	"first concern is their safety and well-being"	YES (emphasis added)		"I think it's adequate" "I don't know that I would	"they did not address specific injuries"

	"gaining I guess compliance" "there's no, there's no guilt… because it is a function of your job" "they made choices that put you in a predicament where …you had to use it	"we had a death following use of the Taser" "we had to use force" "the Taser was relatively ineffective" "we were just standing there and he passed away as a result of that drug usage"		change anything necessarily" "its comprehensive enough" "allowed to feel the effects of it yourself" "more scenarios would be beneficial"	"advise you on the potential for falling injuries" "potential for heart related…Excited Delirium injuries"

		What was your reaction? “Oh Shit” “Sadness for him and his family” “sadness…that he passed away in such a manner” “disappointment …that his choices resulted in death”			

		"We were under quite a bit of scrutiny" "I was fearful of my own circumstance" Fearful that I was going to be out of a job" "Fearful that am I still going to have my freedom" "more fearful of the circumstances that happened afterwards"			

		"I was sad that he passed away" "we were put on extensive leave" "our situation is presented to the Grand Jury" "I wish he would've not fought us, I wish he would have just left his hand cuffs on and			

		then we'd have never, none of us would've been in that circumstance" Change how you do your job? "it did for a while" "you take greater concern…that they could be injured badly" "It didn't change the way I did my job…it			

		changed the way you perceived it."			
15	"when you Tase someone, you have no time to think, it's just reaction? "get used to having a Taser as a secondary weapon"	"When you draw your Taser you're not expecting someone to die" "kind of weird being in one room and they are operating on the suspect in the other room"	Yes maam	"We got to feel what the prongs" feel like" "It was real effective" "Actually physically going through what it felt like"	Beneficial? Yes, maam

	"The fight is on" "the only areas that I have seen it not work, they were on PCP or any other drug and it didn't really affect them" "in our line of business, if you think, you are dead. "There's no	"I can speak only for myself … but you feel bad for the family because you know he has a family" "it was real troublesome for me…. cause going in front of a Grand Jury" "the news, they make it like you're the criminal"			

	time to think, you have to react." "as soon as they see a Taser, 9 times out of 10, they change their mind as to what their intentions were" "he saw the laser light and dropped the knives	"my mother…was upset cause they said the officer was being investigated for homicide" "it's a long wait…you wait, and wait, and wait, and finally you get the call that you're no billed and you are just totally relieved" "it cost me a marriage"			

	and we took him into custody” “the Taser is the best weapon invented besides the hand gun”	“unfathomable to think what we go through” “to sit there and lay there in the bed and you know you’re having homicide come over” “from the very onset when you take someone’s life, it’s very demoralizing the way the news media presents it”			

		(Made facial contortions fighting back tears.) departments' reaction was "ten days and I had to see a psychiatrist for five days" feel like seeing a psychiatrist helped you at all? "Not at all… it wasn't very personable. I			

		just felt like another “cow in the herd” Share with wife or son? (Does not answer, long pause. I do not say anything, I just wait. He had a difficult time articulating due to emotion.)			

		"I had to explain to my son that I was not the crook" "his friends would ask him "I saw your Daddy on the news, he's being investigated for murder…I'm getting teared up." (Looks away, sniffles, has difficult time speaking. Presses his lips			

		together to control emotions.) "No police officer that I know of will ever stand in front of a mirror or ever just go out and say I'm gonna kill somebody today … that just doesn't happen" (held back tears) "To be honest with you, I didn't have any self-criticisms … I			

		knew that I did what I had to do and when I had to do it, I knew I did my job”			

	Use of force	Stress Inoculation Beneficial?	Opinions about Taser	Suggestions	
1	Differs among agencies “ Agencies not using the Use of force Ladder anymore” “Taser is right in line with the Use of force Continuum”	Yes, needed, definitely	Gets job done w/o injuries to officers or citizens Disagrees w/use of force policy	“Even this asking part of this interview is beneficial” Taser simulator More scenarios	

	"Some agencies require hands on before Taser County wide Use of force training is every 2 years"				
2	"I mirrored that policy when I took over as Constable" Policy – boundaries of using Tasers "In what situations you can use	Yes, I do	"It is one of the best tools law enforcement has had in years" It is non-lethal No injuries from the Taser itself	"There might be a little insert about the possibilities of an event occurring at a Taser deployment"	

	the Taser and what situations you can't"				
3	Did not answer	Did not answer	It is a good tool, not the tool.	None	
4		No training is bad training "Training is above & beyond" "Less risk for us to be injured"		Change to not being Tased in training	
5	"You reach for one thing and only one	Yes	When it works it's great		

	thing. I only reach for one area on my belt." "I keep the gun on one side of my body and my Taser on the other"				
6		Yes	"It does not bother me to have it." "The Taser can be very effective, but sometimes it doesn't work"	No	

7		No, because we use the Taser in our daily work." "Taser is a safe controlling tool. So, if you use it on a daily basis there is no stress"			
8		I think it would be "During the instructor course, we had a deal where he is yelling at			

		us and we were simulating a misfire and we had to change a cartridge and everything” “that training is beneficial in a way, but is exactly how you are going to act when a stressful situation happens and you are going through it” “I don’t think you are necessarily going to refer back to that in a			

		stressful situation or k1 now what you are going to do when you are out there" "Basically what they were doing in that kind of training, they are just yelling at you…yelling trying to get your decision now…you just misfired what are you going to do with it…that doesn't really help you"			

		"There is no way they can prepare you for that anyway. I don't think that is something you can see in training"			
9		Beneficial? "most definitely" "a beneficial environment where we are forcing then. Then it wouldn't be "I had to go ask for help, they are making me do this"			

		"It would give them the knowledge of how to sad with it and it's that they can come and talk"…"that is so under used here"			
10		"Yes, there's no question. The initial training, I don't necessarily believe so" "the more scenarios, the better off they are"			"I'd be nice if Taser were to come out with another, like a training gun"

		"Yes … the more training the better, such as more discussions" "They don't have the thought process of being put in a stressful situation"			
11	This officer became fidgety because he needed to leave, so the interview ended.				
12	"Agency policies they don't really restrict us"	Absolutely			

	"You have to be able to say why" "Whatever you did when you use that Taser make sure that you've exhausted all other means" "What goes through my mind is that I've never had a serious incident"	"not just with Taser training but with any type of confrontation"			

	"I'm more hands on that I am using weapons" "sometimes you can use it as a threatening measure" "I drive stunned him and I was thankful that it worked because I was just at the point of exhaustion. I had to do				

	something other than physical” “I’m glad it worked”				
13	“Our agency’s use of force with the Taser is not very restrictive” What goes through your mind? “am I justified in using it”	Absolutely Training now? “to a degree” “from my experience doing stress inoculation…in order to mimic the stress they physically exert you… get your heart up, you’re not		No water No bicycle Not while operating a vehicle	

	"Am I gonna get in trouble" "is this person gonna sustain any kind of injury" "If I pull my Taser and Tase someone I have just committed an assault. Now it's up to either my agency or group of my peers in terms of whether…that was justified…that is all	thinking as clearly, like you would be in a real stressful environment and they release you into the scenario under those conditions"			

	rolling in the back of your head”				
14	“When they work, they work great” “they accomplish what you need, and they safely stop the predator”	“I think it would be beneficial” “it’s very difficult to replicate the stress that you go through whenever you are making those decisions…to train someone, I’m not sure what that would look like”	Yes “In fact, I mean you pull them for two different circumstances” “I would say yes and no” “it’s a use of force decision…because it’s different		

			circumstances when you pull them” “if you are pulling a Taser typically it’s not gonna be deadly force” “typically when you pull your firearm, it’s gonna be a force circumstance”		

			"the mental process is yes and no"		
15	"it's an alternative, right under having to use your hand gun"		"When you draw your Taser you're not expecting someone to die"	"to have some kind of treatment for the officer that uses the Taser and if it results in a death"	