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Stress Perceptions and Verbal Commands for Law Enforcement in High-Stress Situations

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Walden University
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Abstract

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John K. Gibson

MS, University of Phoenix, 2009

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Acute stress can have a negative effect on the physiology and cognitive performance of peace officers when they are engaged in high-stress situations. This could lead to injury or loss of life if a mistaken perception occurs or incorrect decision is made by the officer or suspect. The purpose of this qualitative phenomenological study was to explore the perceptions of stress for peace officers who issue verbal commands to an aggressive role-playing suspect in a use-of-force scenario. The theoretical framework was Lazarus and Folkman's transactional theory of stress and coping. Data were collected from observations, field notes, and semi-structured interviews with 10 peace officers who were immersed in the realistic training scenario. Data from the field notes and interviews were coded and categorized for thematic analysis. Themes that emerged were breathing via verbal commands, realism, stress and anxiety, and perceived control. Implications for social change include increased safety for peace officers and the protection of life.

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Chapter 1: Introduction to the Study

Background

The law enforcement profession differs from most other professions in that officers are often exposed to complex situations that are sudden, dangerous, and have the potential to result in serious physical harm or death. Constant exposure to interpersonal violence, shift work, negative or confrontational interactions, a sense of personal endangerment, fear of revenge by the criminal element, and service to an ambivalent sometimes distrustful and hostile public can take a heavy toll on a peace officer's health, safety, and outlook on the world (McCraty & Atkinson, 2012). Because the law enforcement profession deals with ambiguous human behaviors and actions, officers must use discretion when performing their duties. These situations are problematic because they often require an immediate response from the officer to perceive, interpret, comprehend, and make a decision that is reasonable, appropriate, and legal (Ross, Murphy, & Hazlett, 2012). Because perception is a vital part of a peace officer's decision-making process, hesitancy, indecision, and mistake of fact may cause the officer to misread contextual clues about a suspect's intentions or the overall situation. The inability of or inappropriate response by officers to make appropriate life-or-death decisions could have wide-ranging consequences such as injury or death to the officer or suspect, civil repercussions, criminal charges, and community outrage. This can be difficult because a response to a stressor leads to psychological, behavioral, and physiological changes (van Oort et al., 2017).

In the law enforcement environment, high-stress situations involving the threat of serious physical injury or death are referred to as critical incidents. A critical incident can be any event that occurs outside normal policing or human experience that causes a dramatic disruption in physiological or psychological functioning due to normal human coping mechanisms being overwhelmed (Davis, 2016). Some of the characteristics of a critical incident include sudden or unexpected trauma involving death or serious physical harm to a person, perception by the officer that the event is beyond their control, some type of loss, and a disruption of basic beliefs about the world. According to Digliani (2012), "it is not unusual for police officers to experience several out-of-the-ordinary perceptions and responses during and following a critical incident" (p. 4). A critical incident does not include only high-stress situations but also how an officer responds to and is personally impacted by the experience (Digliani, 2012). Reasonable and well-trained responses stored in the officer's memory can be overridden by the officer's emotional survival instincts, which can explain how officers who have made appropriate decisions in low-stress situations can make inappropriate decisions during high-stress critical incidents (United States Department of Homeland Security Federal Law Enforcement Training Center, 2004a).

To assist with preparing peace officers for entrance into the profession, basic and advanced law enforcement training includes classroom-based and low-stress active learning. This type of training is beneficial for foundational skill sets; however, it may not prepare peace officers for high-stress situations, especially those that involve the control of noncompliant suspects or use of force in situations when rapid decision-

making is required. For peace officers, this knowledge is vital because they are responsible for intervening in life-threatening situations and often armed with limited information or time to assess the situation fully. A critical component of officer safety and survival is the ability to make effective decisions under acute stress, such as situations that rapidly escalate when an immediate and appropriate response is required for survival (United States Department of Homeland Security, 2011b). If the peace officer's decision-making capabilities are negatively impacted due to stress during these situations, then the opportunity for an improper or unreasonable decision related to a response could lead to the loss of life or serious physical harm to the officer or suspect.

Cognitive research has indicated that humans are predisposed to make rapid decisions by relying on cognitive shortcuts or thinking quickly when risk or threat is perceived and thinking slowly when no threat perception exists (Mears, Craig, Stewart, & Warren, 2017). Although these mental shortcuts permit quick decision-making in situations involving danger or the perception of danger, if the officer has cognitively established inaccurate biases, their decision-making process could be flawed. The most common explanation for bias is a necessary by-product of human sensory limitations due to stimulus identification and processing time being limited; humans rely on mental shortcuts referred to as heuristics that are prone to be problematic in certain circumstances (Haselton, Nettle, Murray, 2015).

One way to help train officers to prepare for these stressful situations and develop schemas and heuristics based on high-stress contextual situations is through experiential learning in the form of reality-based training (RBT). According to the Reality Based

Training Association (2017), reality-based training is "any manner of training that utilizes tools, techniques, or methodologies to approximate in a training setting any situation that might occur in an operational setting" (p. 1). The RBT model includes a combination of student-centered, didactic, and psychomotor skills training to prepare the trainee for life-threatening situations (Murray, 2004). These simulations involve cognitive skills, emotional management, and tactics to help officers prepare for high-stress incidents (Broomé, 2011). The assumption that underlies this training approach is that, in order for RBT to be successful, it must be focused on a judgment and scenario-based environment that exposes participants to the types of situations that could occur in the line of duty (Armstrong, Clare, & Plecas, 2014). The goal of this training is to enhance officer decision-making and performance by creating new or bridging the gap in learned memories of reasonable responses to high-stress incidents via RBT that will enable officers to develop schemas and coping mechanisms that are safe, legal, and contextually effective. This can be accomplished by developing training scenarios that are as realistic as possible to assist in developing student-officer working memories that will reference the schema created during the training session (Wollert & Quail, 2018). An additional benefit comes from the fact that making decisions under high levels of stress might also affect how officers react to and communicate with those they encounter during the incident. This may lead to changes in the manner in which the nature and frequency of verbal commands are issued (Vandermay, Houlihan, Klein, Lewinski, & Buchanan, 2008).

Problem Statement

Despite knowledge of and training methods that incorporate cognitive-based and stress-inducing training, questionable use-of-force decisions made by peace officers are still occurring (Andersen & Gustafsberg, 2016). This problem has negatively affected peace officers, suspects, and society at large. A possible cause of this problem is officers operating under severe stress who are likely to be at greater risk of error, accidents, and overreactions that can compromise performance, jeopardize public safety, and pose significant criminal and civil liability to themselves and their respective departments (McCraty & Atkinson, 2012). Foundational research in the area of task execution revealed that psychological and physiological stress responses during critical incidents shape the outcome of the incident (Arnetz, Arble, Backman, Lynch, & Lublin, 2013). A phenomenological study focusing on the perceptions of stress by peace officers who issue verbal commands to an aggressive role-playing suspect in a high stress scenario may provide insight into their cognitive decision-making and coping process to remedy the situation.

Purpose of the Study

The purpose of this qualitative phenomenological study was to explore the perceptions of stress for peace officers who issue verbal commands to an aggressive role-playing suspect in a use-of-force scenario and what role verbal commands play in the situation. The study included observations, field notes, and recorded interviews with a group of officer-students in Ohio who underwent RBT. This style of training places officers in realistic simulations to complete job-related tasks against live role-players who

may or may not be compliant with the officer-student's verbal or physical commands. The RBT model of training is designed to reinforce officer safety, encourage decision-making, and test operational procedures while eliciting acute stress decision-making and responses. The selected group of officer-students provided perspectives of their experiences during this training regarding their perceptions of stress and whether verbal communication acted as a coping mechanism that affected individual self-efficacy causing them to feel more in control of the scenario. There was a need for increased understanding about coping mechanisms because officers operating under acute stress are likely to be at greater risk of error or overreactions that can compromise safety and performance and jeopardize human life (McCraty & Atkinson, 2012). By exploring the perceptions and performance of the officer-students involved in the RBT training, I hoped to understand whether the use of verbal communication can act as a coping mechanism against the negative effects of acute stress.

Research Questions

Phenomenological inquiry addresses the structure of various types of experience ranging from perception, thought, memory, imagination, emotion, desire, and volition to bodily awareness, embodied action, and social activity, including linguistic activity (Smith, 2013). The current phenomenological study was informed by the central research question: What are the perceptions of stress for peace officers who issue verbal commands to a role-playing aggressive suspect in a reality-based use-of-force critical incident? A subquestion also assisted in guiding the research: What role does the issuance

of verbal commands play in the perception of stress for peace officers who encounter an aggressive role-playing suspect in a simulated critical incident?

Theoretical Framework

The theoretical base for this study was Lazarus and Folkman's transactional theory of stress and coping. The transactional theory of stress and coping posits that stress is conceptualized as a relationship between the individual and the environment that is appraised by the individual as taxing or exceeding their ability to effectively cope with the stress, leading to feelings of personal danger (Folkman, Lazarus, Gruen, & DeLongis, 1986). Part of this transactional process involves the appraisal or perception of the stressful event rather than the event itself that determines whether coping strategies are initiated to negate the stressor (Lazarus, 1991b; 1999). The demands an individual perceives and the resources they possess to deal with the demands can impact how they cope with the situation.

The appraisal process involves a primary and secondary assessment. According to Folkman, Lazarus, Dunkel-Schetter, De Longis, and Gruen (1986), in the primary appraisal process, the individual evaluates whether they have anything at stake in the encounter, such as threat to well-being or death. In the secondary appraisal process, the individual evaluates whether anything can be done to overcome or prevent the threat from occurring, which is the coping process (Lazarus, 1991a). During this appraisal process, a threat response is typically characterized by high negative affect and inadequate mobilization of physiological resources combined with an increase or decline in vascular resistance (Tomaka, Blascovich, Kibler, & Ernst, 1997). A challenge response

is typically characterized by positive affect or low negative affect and efficient or organized mobilization of physiological resources (Tomaka et al., 1997).

This framework was chosen because it provided a means of understanding the perception of stress from the officer-students who were participating in the RBT simulation. The issuance and types of verbal commands may provide additional insight into how the officer-participant perceived the stress as a threat or a challenge. Data collected from observations, field notes, and interviews assisted me in understanding the phenomenon from the perspectives of those involved.

Nature of the Study

I used a qualitative phenomenological research method. The qualitative approach was appropriate for this research project because this method is used to understand individuals and phenomena in their natural settings in ways that are contextualized and reflect the meaning that people make out of their own experiences (see Ravitch & Carl, 2016). The phenomenological approach included an evaluation of officer stress perception and decision-making using verbal commands against an aggressive role-player suspect during simulated use-of-force critical incidents designed to invoke acute stress. Phenomenology is the study of phenomena, appearances of things, or things as they appear in an individual's experience (Smith, 2013). Phenomenological inquiry addresses conscious experience as experienced from the subjective or first-person point of view and is used to describe and elucidate the meanings of this human experience (Rudestam & Newton, 2015). The only way to understand what other people experience is to experience the phenomenon as directly as possible (Patton, 2015). This was

accomplished in the current study using the RBT experiential-based learning model, which places officer-participants close to a real-world high-stress situation that can be done safely and without the risk of injury or life-and-death consequences. The study involves data gathered during observation of the officer-students participating in the RBT and semistructured interviews with participants. The descriptions and perceptions reported by the participants were coded and analyzed. The validity of the participant descriptions conformed to the standards of credibility, transferability, dependability, and conformability. The credible and dependability methods used for this study aligned with the research question: What are the perceptions of stress for peace officers who issue verbal commands to an aggressive role-playing suspect in a reality-based use-of-force critical incident? The subquestion was the following: What role does the issuance of verbal commands play in the perception of stress for peace officers who encounter an aggressive role-playing suspect in a simulated critical incident? The study provided contextual data so the findings would be able to be repeated by others in an effort to validate transferability and conformability. The findings contributed to the existing knowledge on coping mechanisms for individuals experiencing the negative effects of the acute stress response.

Definitions

Acute stress: Also referred to as the fight-or-flight response, acute stress is the body's immediate reaction to a perceived threat. Acute stress is sudden, novel, or of relatively short duration (Wollert & Quail, 2018).

Coping mechanism: Constantly changing cognitive and behavioral efforts to manage external and internal demands that are appraised as taxing or exceeding the resources of the person (Lazarus & Folkman, 1984).

Reality-based training: Stress exposure training including a script or outline of a series of carefully crafted events designed to trigger actions or competencies to be performed or measured by a participant (Wollert & Quail, 2018)

Verbal command: Any communication directed by law enforcement to nonemergency personnel in which a verbal or motor response is appropriate. Two types of verbal command subtypes include (a) alpha, or a command in which a motoric or verbal response is appropriate and feasible, and (b) beta, or a command in which compliance may be difficult due to vagueness, interruption, or indirectiveness (Schwarzkopf et al., 2008).

Assumptions, Scope and Delimitations, and Limitations

An officer's training and experience should provide them with the ability to focus greater cognitive attention on the elements of the encounter permitting varying degrees of stress perception and performance. The psychological and cognitive adaptations that occur during high-stress incidents might impair the underlying processes that facilitate mutual understanding between the officer and suspect, resulting in the generation of a higher level of indiscernible commands by the officer (Vandermay et al., 2008). Issuing appropriate, cognitive-based verbal commands against an aggressive role-player in a RBT environment may enable the officer-student to effectively cope with the negative

effects of acute stress. This coping self-efficacy should guide their stress perceptions, resulting in successful performance outcomes in the scenario.

Because the data gathered from this study were based on perceptions and experiences from the participants, the data were subjective. Bias could have occurred based on my background conducting RBT. Bracketing procedures were implemented when using the transactional theory of stress and coping framework for data collection and analysis to ensure any type of bias was mitigated as much as possible.

Limitations of this study included the students providing truthful responses. Although this study involved a random group of officer-students, their experience was based on a training scenario and not a real situation. If the officer-students had previously conducted RBT, they may have become inoculated to the negative effects of acute stress and may not have experienced the same sensations as other officers, which would have made their responses inconclusive. The style of training and environment was the only possible method in which to gather the data due to each officer-student experiencing the same simulation under the same working conditions. Although this study involved peace officers, the results may be beneficial for anyone charged with interacting with noncompliant persons or other high-stress situations.

Significance

The purpose of this study was to fill a gap in understanding and add to the current literature by exploring the perceptions of stress by peace officers who issue verbal commands to an aggressive role-playing suspect in a scenario-based use-of-force critical incident. These stress perceptions may provide insight regarding whether the use of

verbal communication can act as a means to manage the perception of the negative effects of acute stress and act as a coping mechanism to make officers feel more in control of their decision-making and physiological performance. This project differed from previous research because it addressed a specific act to determine whether the spoken word in the form of verbal commands was perceived by the officer-participants to counteract the negative effects of acute stress on human decision-making and performance while engaged in simulated critical incidents.

The results of this research may provide law enforcement officers with additional information regarding methods to combat the negative effects of acute stress to assist in performance and the decision-making process. According to Andersen and Gustafsberg (2016), improved use-of-force decision-making translates into potentially lifesaving decisions for police and the civilians they are working with. Positive social change also includes increased safety and the preservation of human life.

Summary

Peace officers are required to make decisions that are correct, reasonable, and legal, often in a rapid manner while experiencing negative effects of acute stress. Decision-making under stress based on emotion instead of critical thinking can result in negative outcomes for the officer and the suspect. The law enforcement profession includes unpredictability, so techniques to counter or manage the negative effects of acute stress should be explored. Officers are trained to issue verbal commands to suspects so the suspect understands what the officer wants them to do. I explored the perceptions of officer-students participating in RBT to understand whether the issuance of verbal

commands can also act as a coping mechanism against the negative effects of acute stress. Human performance can be resilient and adaptive in ambiguous contexts, but it can also be plagued with errors (Salas, Rosen, Held, & Weissmuller, 2009). By exploring the perceptions and performance of the officers involved in this type of training, I hoped to obtain a better understanding of whether the spoken word can act as a means of managing stress perceptions for the involved officers.

Chapter 2: Literature Review

This study addressed the perceptions of stress by peace officers who issue verbal commands to a noncompliant role-player in a high-stress scenario. It was important in the law enforcement profession to understand whether the spoken word, in the form of a verbal command, acts as a coping mechanism against the negative effects of acute stress due to the daily interaction with people who are not law-abiding. To ensure the design of this project was valid and a legitimate gap in the research existed, I examined research on the phenomenon of acute stress, perception, self-efficacy, coping mechanisms, and verbal commands. The current study added to the research on stress perceptions and the spoken word in the form of a verbal command.

To better understand how peace officers perceive stress while engaged in high-stress situations involving noncompliant suspects, I identified the process humans use to cope with various forms of stress. The transactional theory of stress and coping by Lazarus and Folkman (1984) was the theoretical framework for this study. The transactional theory of stress and coping posits that stress is conceptualized as a relationship between the individual and the environment that is continuously appraised by the individual as taxing or exceeding their ability to effectively cope with the stress, leading to feelings of personal danger (Folkman et al., (1986). This approach includes the two-way process of the transactions between the individual and the environment; stress results not from the individual or the environment solely, but rather from a combination of the two (Folkman, 1984; Lazarus & Folkman, 1984).

Defining the Problem

Despite a better understanding of how acute stress can negatively impact human performance and more realistic methods of training, questionable use-of-force decisions by peace officers are still occurring (Andersen & Gustafsberg, 2016). This problem needs increased attention due to it potentially involving serious physical harm or the loss of life to persons and community mistrust. Foundational research in the area of task execution revealed that psychological and physiological stress responses during high-stress critical incidents shape the outcomes (Arnetz et al., 2013). Many of these responses are related to the appraisal of the stressor and coping self-efficacy of the involved officer. The purpose of this phenomenological study was to explore the perceptions of stress by peace officers who issue verbal commands to an aggressive role-playing suspect in a high-stress scenario to provide insight into their cognitive appraisal and coping process.

Defining the Purpose of the Study

The purpose of this research was to explore the perceptions of stress for peace officers who issue verbal commands to a noncompliant role-player in a reality-based use-of-force scenario. In addition, I also explored the role verbal commands play in the situation. I used observational techniques, field notes, and interviews to collect data on the perceptions of the officer-students.

Theoretical Framework

The theoretical framework for this study was the transactional theory of stress and coping by Lazarus and Folkman (1984). This framework was chosen because it permitted me to focus this phenomenological study on the perception of stress for peace officers

undergoing high-stress reality-based training involving an aggressive role-player. In the training, the officer-student must deal with the noncompliant role-player, which should trigger a stress reaction based on a primary and secondary appraisal of the situation. These appraisals determine whether the role-player constitutes a threat and whether the officer-student can effectively cope with the situation.

Lazarus (1984) described two coping strategies for individuals when they encounter stress: problem based and emotion based. Problem-based coping refers to efforts made by the individual to modify the sources of stress, whereas emotion-based coping refers to efforts made by the individual to effectively control emotion while experiencing the stress (Lazarus & Folkman, 1984). I also explored whether the spoken word, in the form of issued verbal commands by the officer-student, acted as a coping mechanism based on the emotion-based criteria. Brough, O'Driskoll, Kalliath, Cooper, Poelmans, (2009) & Walker (2012) found that the transactional theory of stress and coping indicates that an individual's appraisal of the situation influences their resultant emotions, coping strategies, and subsequent outcomes.

Literature Review

Concept of Stress

The concept of stress has been studied by many researchers through the years and has different definitions across professions and the sciences. In 1915, Cannon (as cited in Fink, 2016) coined the term *fight-or-flight*, also known as the acute stress response, to describe the process an animal experiences when faced with a threatening stimulus. Cannon (as cited in Brown & Fee, 2002) posited that rapid reactions from the

sympathetic nervous system prepare the animal to fight or flee from the threatening stimulus to ensure its survival. Taking lessons from Cannon, in 1936, Seyle (as cited in Fink, 2016) provided a clear definition of stress in the context of biomedicine and went on to recognize that homeostasis could not by itself guarantee stability of anatomical systems experiencing stressful events. Although *stress* has had numerous definitions through the years, the definition from Salas, Driskel and Hughes (1996) is that "stress is a process by which certain work demands evoke an appraisal process in which perceived demands exceeds resources and results in undesirable psychological, emotional, cognitive, and social changes" (p. 6) fit the scope of the current study.

Acute Stress

Acute stress is immediate, unexpected, lasts a short period, and disrupts goal-oriented behavior (Wollert & Quail, 2018). This type of stress affects emotional and cognitive responses, in addition to performance in multiple ways such as increased distraction and decreased attentional focus, increased cognitive load and demand on capacity, increased fear and anxiety, increased negative emotions, and increased social impairment (T. Driskell, Sclafani, & Driskell, 2014). Because of the demands placed on the individual experiencing the negative effects of acute stress, officers can also experience hypervigilance as though they are operating in a state of imminent danger. Although vigilance is essential for officers to remain safe throughout their shifts, hypervigilance may cause an officer to perceive an innocuous stimulus as a threat.

Wollert and Quail (2018) summarized the stressful situation as one in which the perception of danger exceeds a person's resources to respond. Perception generates

physiological responses in the body, such as being alert to danger, and initiates a fight-or-flight response whether the threat is real or imagined (United States Department of Homeland Security Federal Law Enforcement Training Center, 2004a). Real or perceived stress manifests consciously and subconsciously within the human brain. Although perception can often be considered reality, in the high-stakes environment of a law enforcement critical incident, life can be endangered if a mistaken perception is made.

Part of the human subconscious includes the autonomic nervous system. The autonomic nervous system will react almost instantaneously to physical, emotional, and cognitive stressors and will regulate processes in the body to adapt to the stressor (Low, 2018). This system is composed of three parts (sympathetic, parasympathetic, and enteric) and is part of the nervous system that regulates the processes in the body humans cannot control, such as breathing, heartbeat, and metabolic processes (United States Library of Medicine, n.d.). Of these parts, the sympathetic and parasympathetic systems are the primary divisions. The sympathetic nervous system increases arousal and prepares the body for stressful encounters, such as fight-or-flight situations, by accelerating heart rates, constricting blood vessels, and raising blood pressure, while the parasympathetic nervous system slows the pulse, increases digestion, and assists the body to relax (Blessing & Gibbons, 2008).

A response to acute stress will often result in the fight-or-flight reaction. The fight-or-flight response is a physiological reaction that occurs in the body when the brain perceives a harmful event or threat to survival. Cannon (as cited in Berczi, 2017) described an animal's emotional response to fear and rage and posited these emotions

disrupt the overall balance of the animal, which results in it responding via a general discharge of the sympathetic nervous system preparing the animal for fighting or for running away from the threat. The onset of a response to a stressful situation or threat stimulus in humans is also associated with specific actions in the sympathetic nervous system. When a threat stimulus is perceived, the sympathetic nervous system communicates with the adrenal glands, which release epinephrine into the body that prepares the individual to challenge or flee from the threat (Hoggard, 2017). Once the body is flooded with epinephrine, instantaneous changes occur such as increased heartrate, increased circulation to the major organs, increased breathing, loss of fine motor skills, auditory exclusion, dilated pupils, and an increase in pain tolerance (Hoggard, 2017). During the fight-or-flight response, the body decreases rational thought and prioritizes survival.

Aspects of the fight-or-flight response can be detrimental to a response to a high-stress situation and includes areas such as perceptual distortion, auditory exclusion, tunnel vision, reduced motor dexterity, and impaired cognitive functions (Andersen, Pitel, Weerasinghe, & Papazoglou, 2016). The erratic nature of the law enforcement profession causes peace officers to have high demands placed on them when responding to various situations. Preparing officers for high-stress altercations requires them to understand the potential stressors they might encounter in the field so they can develop appropriate and legal coping mechanisms to counteract these stressors. This can become a serious issue when an emotional response to a stressor is made instead of timely, low-level stress decision-making. J. W. Mason (1968) posited that for a situation to induce a stress

response in humans, it has to be novel and unpredictable, and the individual must perceive that they are not in control of the situation.

Cognitive stress requires a deeper level of threat appraisal, while subconscious emotional stress involves a simplistic appraisal process (Wollert & Quail, 2018). These distinct emotional neural pathways were coined the *low road* and the *high road* by LeDoux (as cited in Benson, 2002). The high road pathway takes the threat information from the thalamus to the neocortex and then to the amygdala and involves cognitive evaluations of threat, which are slower but typically more accurate (Heshmat, 2015). The low road pathway takes threat information from the thalamus to the amygdala and permits a person to respond with speed as opposed to accuracy in threatening situations (Heshmat, 2015). When a threat stimulus is detected, automatic defensive reactions are initiated, often without conscious thought. The sensory circuits that are used to detect the threatening stimuli can either be prewired to respond to species-specific threats or wired via schema to detect novel stimuli that signify sources of threat (LeDoux, 2014). This demonstrates that relatively simple sensory processing by the subcortical areas of the brain can provide input into the amygdala, which can bypass cortical areas (LeDoux, 1996).

A concern with acute stress from a pragmatic viewpoint is the negative effect it has on the physiological, emotional, and cognitive demands imposed on the individual and how it impacts decision-making. One case that has garnered high-profile status in the media and included perception and decision-making under acute stress is the controversial shooting death of Laquan McDonald by Officer Jason Van Dyke of the

Chicago Police Department on October 21, 2014. The facts of the case as stated by the Chicago Police Department (2014) are that police officers responded to a citizen complaint that a suspect, who was later identified as McDonald, was breaking into motor vehicles in a truck yard. Police located McDonald, who was walking into traffic armed with a folding knife with the blade in the open position. Police issued verbal commands and ordered McDonald to drop the knife, but he continued walking into traffic displaying irrational behavior. At some point, McDonald moved toward the officers still armed with the knife. Officer Jason Van Dyke shot McDonald 16 times, which resulted in his death (City Council of the City of Chicago, Committee on Finance, 2015).

Numerous police witnesses at the scene stated that McDonald refused to comply with verbal commands, and when he made a movement toward their direction, Van Dyke, who was spatially closest to McDonald, was the only officer to fire his weapon at McDonald. This case became infamous due to the number of shots fired by Officer Van Dyke in addition to video footage that did not correspond with Officer Van Dyke's recorded statements as to his perceptions of the incident. Officer Van Dyke was charged and convicted of second-degree murder (Ali, Silva, & Chuck, 2018).

As this case suggests, there is a need for increased understanding of coping mechanisms for acute stress because officers operating under conditions in which they experience acute stress are likely to be at greater risk of error or overreactions that can compromise decision-making and performance and possibly jeopardize human life (McCraty & Atkinson, 2012). Research suggested that the adverse effects of multitasking on performance under acute stress is more significant when the tasks performed are

unfamiliar rather than familiar (Wollert & Quail, 2018). Individuals in high-stress incidents adapt to situational stress after experiencing the phenomenon multiple times, and that training can assist in duplicating the process, with studies showing experienced personnel are able to control and use stress productively in their decision-making and performance (Weltman, Lamon, Freedy, & Chartrand, 2014).

Nieuwenhuys & Oudejans (2012) conducted reviews on research aimed at exploring the relationships between anxiety and perceptual-motor performance focusing on how anxiety affects perception, selection and realization of actions. From this research, three operational levels were identified; attentional, interpretational and behavioral. These levels were highlighted to determine how anxiety impacts goal-directed actions. This research directly impacts my research project specifically as it begins with the detection of task-relevant information in the form of perception.

Anxiety may impact perception of action possibilities by causing people to focus on different information such as threat-related and task-oriented information. Visual perception may also be modified once anxiety is experienced (Proffitt, 2006). When an individual must judge whether a sudden stimulus constitutes a threat or is not a threat, anxiety causes the selection of a threat-related perception more likely, possibly because of the strengthening of the human threat-evaluation mechanism and hindering the control mechanism (Bishop, 2007; Mathews & Mackintosh, 1998). This might assist in explaining why experienced police officers may perceive a suspect is holding a weapon and constitutes a threat when actually they are not. By affecting how individuals perceive

or interpret their environment, anxiety may alter response options (Bishop, 2007; Mathews & Mackintosh, 1998; Proffitt, 2006).

Nieuwenhuys & Oudejans (2012) reported in relation to attention control theory in goal-directed responses to a stimulus, the amount of time an individual continuously focuses on the source of the stimulus appears to be significantly connected to performance. To accurately acclimate their physical movements in relation to their target, humans need to obtain enough information about their target. If less time is spent focusing on a stimulus, individuals experiencing anxiety will typically have less time to orient to the stimulus since visual information can cause a decrease in performance (Behan & Wilson, 2008; Causer et al., 2011; Nieuwenhuys & Oudejans, 2010, 2011; Vickers & Williams, 2007; Wilson, 2011, Vine et al., 2009).

Stress Perception

According to Crum, Salovey & Achor, (2013), an individual's stress mindset can be conceptualized as the belief an individual has that stress can either cause performance enhancement or have debilitating consequences. If an individual believes he or she can influence outcomes by the perception of control of a situation, the more likely he or she may become in engaging in goal-directed behavior and the more successful he or she may be in achieving the goal. Perceived control is subjective, which can influence behavior, but this is not the objective reality that the individual can guarantee a desired result.

One characteristic of cognitive appraisal is the individual's perceived controllability of the situation (Anshel, Robertson & Caputi, 1997). The selection and use of coping strategies will be influenced by the individual's cognitive appraisal (Lazarus &

Folkman, 1984; Parkes, 1986). An individual's appraisal or perception of a threat is a process that occurs subconsciously in neural circuits that that are responsible for assigning meaning and personal relevance (LeDoux & Pine, 2016, Ginty, Kraynak, Fisher & Gianaros, 2017). During this process, the brain sends signals for cardiovascular physiology that enhances metabolic and behavioral responses to the threat, however maladaptive physiological arousal in response to a threat may hinder decision-making and peak physical performance (Andersen, Di Nota, Beston, Boychuk, Gustafsberg, Poplawski & Arpaia, 2018). This physiological occurrence is manifested during situations where the officer believes there is an immediate threat to his or her personal safety and can be represented by the officer's perceived inability to effectively respond to the threat (Ross, Murphy & Hazlett, 2012).

Baldwin, Bennell, Andersen, Semple, & Jenkins, (2019) investigated autonomic stress responses from officers during calls for service to determine if factors surrounding the calls for service influenced physiological stress responses amongst the responding officers. The experiment included 69 active duty police officers from Canada and data concerning calls for service were collected over the course of 125 shifts. The officer-participants were outfitted with heart rate monitors, global positioning system and foot-mounted inertia sensors to collect and measure pulse, physical movement and overall cardiovascular activity. These sensors and operational police records assisted researchers in categorizing the phases of the calls for service, including dispatch, in-route, arrival on scene and encounter/use of force or arrest. The calls for service were classified under a numerical priority level from routine to very urgent. This measure of constant ambulatory

cardiovascular reactivity amongst the officer-participants was collected to develop a pattern of physiological responses associated with various calls for service and police interactions with the public.

This research was consistent with the findings of Andersen et al., (2002) Andersen, et al., (2016) in that stress arousal is a concept law enforcement officers must contend with regardless if they are general police officers or those assigned to Special Weapons and Tactics (SWAT) teams. The previous research that focused on these two types of officers tend to demonstrate that training does not seem to reduce the physiological arousal to calls for service involving higher risk. Perhaps the perception of the involved officers as to the dangerousness of the call for service is a determining factor in the level of physiological arousal (Baldwin, Bennell, Andersen, Semple & Jenkins, 2019). While stress and perceptions of stress can cause performance to deteriorate, experience and training can aid in improved decision-making (Vickers and Lewinski, 2012; Renden et al., 2015; Boulton and Cole, 2016; Landman et al., 2015a).

Reality-Based Training and Coping Mechanisms

Coping refers to the ability to manage stressful feelings and to deal with the unpleasant events from which those feelings originate (Anshel, Umscheid, & Brinthaupt, 2013). Coping frameworks are numerous, however approach coping tends to focus on the individual's behaviors following the appraisal of a stressful situation to assist with stress management (Anshel, 2000). Examples of approach coping includes; verbal confrontation, visualization, information gathering and monitoring (Anshel and Brinthaupt, 2014). This style of coping strategy is characterized by cognitive and

emotional action directed toward the source of the stimulus. The failure to use effective coping skills in response to stressful situations can be detrimental to the officer both at the time of the incident and beyond.

Anderson, Pitel, Weerasinghe & Papazoglou (2016) stated officers who were not exposed to high- stress scenario-based training may not be prepared for real-world critical incidents due to a lack of experience making decisions under those high demands. In training that simulates real-world encounters, high-realism places officers in physical contexts that look, sound and feel authentic. The measurement of the officer-participant's stress reactivity provided objective physiological evidence of the realism of the scenarios. Results of their research indicated officer physiological stress to a high-stress scenario was significantly correlated to the stress response of active duty officers, whereas stress responses during classroom-based scenario training was minimal and did not significantly relate to stress responses related to real-world situations nor high-stress scenarios.

Oudejans & Pijpers (2009) explored the phenomenon of human performance decrements under pressure. The experiments sought to discover if exposing expert athletes to increased levels of anxiety during practice would have a positive impact on their subsequent performance. Two experiments were conducted, one involving basketball players who practiced free throws over a five-week period with and without varying levels of induced anxiety. Only after training with anxiety did performance no longer deteriorate during the posttest. The second test involved expert dart throwers who practiced from a low or high position upon a climbing wall, which induced anxiety.

Similar to the first test, only after training with anxiety the performance of the expert dart throwers was maintained. The conclusion from these tests were that practicing under anxiety can assist in preventing choking under pressure in perceptual-motor performance. These results also tend to exemplify the importance of subjecting law enforcement officers to realistic training scenarios that cause them to operate under high-stress to assist in inoculating them to the negative effects of stress.

Taverniers, Smeets, Van Ruysseveldt, Syroit & von Grumbkow, (2011) posited that analyses involving anticipatory distress, subjective stress and cortisol reactivity were triggered by RBT scenarios that placed participants in situations that were uncontrollable by the participant where they experienced being shot at by a role-player armed with non-lethal training ammunition. The research examined to what extent exposure to reality-based stress affected working memory performances and self-perceived active learning. Active learning is a task-related outcome that "occurs in situations that require both individual psychological energy expenditure and the exercise of decision-making competence" (Karasek & Theorell, 1990, p. 92). Active learning can occur during training and may develop into a feeling or perception of mastery, self-efficacy, and increased motivation (Karasek & Theorell, 1990).

Their study compared the experienced stress during high-realism practice with the stress of a control group that practiced in identical circumstances but, explicitly, without the risk of being shot at. Participants included 36 male officers ranging in age from 22 to 59 years of age. These participants participated the workshop in teams of two and were randomly assigned to a control or a high-realism condition for a between-subjects field

experiment. Salivary cortisol samples were collected by the participants along with subjective tests to measure task load. Participant's working memory was measured by using Digit Backwards Paradigm measure along with a self-reported perception of active learning questionnaire.

The results of their study supported the idea that despite the significantly higher subjective and objective stress levels, the participants in the high-realism group reported more active learning. This research also reported RBT enhanced individual perception in terms of acquired skills and competencies for the officer-participants. In addition, the premise that the risk of experiencing physical pain stimulus in the form of being shot at also caused significant increases in cortisol secretion and a reduction in overall working memory.

Renden et al., (2014) investigated the effects of anxiety on the execution of law enforcement officer arrest and unarmed self-protection skills. This experiment involved police officer-participants being exposed to a low anxiety scenario where they faced an armed role-player who attacked them with either a rubber knife or a training knife that delivered a mild electric shock. The officer-participants had to either kick, block or restrain the attacking role player while their perceptual motor behavior was analyzed. Thirteen officers participated in the experiments along with a certified police instructor who acted as the role-player. Each officer-participant performed a push kick, a knife block and a wristlock in a low- anxiety state and then again in a high- anxiety state against the knife-wielding role-player.

Performance of the officer-participants was measured using a variety of tools including a Likert-scale, a suit affixed with sensory modules as well as video analysis. Results deemed from the analysis determined officer-participants reported significantly higher levels of anxiety and perceived mental effort in the high-anxiety condition than in the lower-anxiety condition along with accelerated heartrate and decreased performance. Posture under the high-stress condition was also shown to include characteristics of avoidance behavior by leaning backward prior to the execution of the push-kick resulting in a less powerful kick and lower blocking of the training knife as opposed to blocking the knife closer to the role-playing attacker's hand.

Based on this information, it appears as if the preferred goal-directed behavior was incongruent with the emotional state the officer-participants experienced. This indicated they could not inhibit stimulus-driven processing and enforce goal-directed processing which led to avoidance mannerisms in their behavior and performance which led to less effective performance. This seems to confirm previous research that states the common amygdala-prefrontal circuitry is altered when people are under acute stress which creates a bias toward threat-related perceptions and responses (e.g., Bishop, Duncan, Brett, and Lawrence, 2004; Bishop, Duncan, and Lawrence, 2004).

Officers may attribute perceptions to situations based on how well they were prepared for and managed the situation. An officer who reflects a positive perception of how he or she managed a complex situation will typically believe he or she can manage future situations, whereas an officer who has a negative perception to how he or she managed a situation might experience apprehension or fear. According to the Ohio Peace

Officer Training Academy (2016), the stages of skill competence used as a learning model for law enforcement RBT in Ohio consists of four parts:

- Unconscious incompetence. The individual does not understand or know how to do something and does not necessarily recognize the deficit.
- Conscious incompetence. Though the individual does not understand or know how to do something, he or she does recognize the deficit as well as the value of a new skill in addressing the deficit.
- Conscious competence. The individual understands how to do something, however demonstrating the skill or knowledge requires concentration and breaking it down into multiple steps to perform or explain.
- Unconscious competence. The individual has had so much practice with a skill that it has become ingrained into his or her unconscious abilities and can oftentimes be demonstrated while executing other tasks (Ohio Peace Officer Training Academy, 2016).

While the RBT training model can assist officer decision-making by introducing participants to the negative effects of acute stress, to maximize student-officer comprehension and cognitive reasoning, a rigorous evaluation process must be present to achieve the goal of unconscious competence. One such evaluation process developed by the Federal Law Enforcement Training Center (FLETC) specifically for RBT is the Scenario Training Assessment and Review (STAR) model. This model evaluates student-officer abilities and performance during a RBT exercise focusing on officer survival and appropriate legal procedures. The framework of this evaluation model includes:

- Situational awareness. Being aware of what is occurring in order to understand how information, events and the officer's actions influences the goal's objectives.
- Threat identification. Accounting for threats and non-threats, properly prioritized, effectively communicated and appropriate response is established.
- Initial response. A strategy to counter any threat or emergency and includes the position of advantage, tactics or other corrective action.
- Scene control. The ability to maintain control of the situation including evidence, crime scene, threats, victims and witnesses.
- Application of force. Application of appropriate force options and articulation consistent with constitutional standards.
- Arrest techniques. Initiation of correct procedures during an arrest including position of advantage, handcuffing and search.
- Communication. Information exchange between entities through correct and timely verbal commands, non-verbal behaviors and written accounts.
- After-action articulation reviews. Providing factual and accurate information during an RBT debriefing session (United States Department of Homeland Security Federal Law Enforcement Training Center, 2011a).

This evaluation model is beneficial for both instructors as well as the student-officers participating in RBT based off the predesigned objectives of the scenario as human performance can be resilient and adaptive in ambiguous contexts, but it can also be plagued with errors (Salas, Rosen, Held and Weissmuller, 2009). By exploring the

perceptions and performance of the officers involved in this type of training, this study seeks to understand if the use of verbal commands acts as a coping mechanism against the negative effects of acute stress during RBT.

Delahaij & Van Dam (2017) investigated the role of coping style and coping self-efficacy for military recruit's appraisal emotions and subsequent coping behavior during a high-stress exercise at the conclusion of an 18 to 33-week training period. In keeping with other studies related to how individual self-efficacy predicted their appraisal to a stressful situation as a threat or a challenge (Karademas & Kalantzi-Azizi, 2004), the hypothesis was that coping self-efficacy will relate positively to challenge emotions and negatively to threat emotions while challenge emotions would relate positively to task-focused behavior and negatively to emotion-focused behavior.

The research project was implemented using three groups of recruits from the Netherlands Defence Academy, specifically: 237 participants from Sample one, 234 participants from Sample two and 177 participants from Sample three. Each participant in the samples had to undergo some type of high-stress survival scenarios. For Samples One and Two, a self-defense exercise was chosen where recruits had to defend themselves against multiple opponents. Participants in Sample Three had to escape from a helicopter submerged under the water. Coping style and coping self-efficacy levels were measured a week prior to immersion into the exercises while challenges, threat appraisals and coping behaviors were measured directly after the exercise.

Task- focused and emotion-focused coping styles were measured with Coping Inventory for Stressful Situations (Ender & Parker, 1994). Coping and self-efficacy levels

were measured using Delahaij & Van Dam (2016) Eleven-Item Coping Self-Efficacy Scale, which was used to measure perceived capability to perform effectively during stressful situations. Coping behavior was assessed using Matthews and Campbell's (1988) Coping Inventory for Task Stressors and appraisal.

Through this research project coping skills for acute stress by military personnel was explored. Across the sample cases, the applicability of coping style, efficacy and appraisal emotions for effective behavior and coping under acute stress was supported. Coping self-efficacy beliefs were found to potentially reinforce both positive and negative emotions, which supports previous stress and emotion literature. The research confirmed coping style directly affected coping behavior, and coping self-efficacy played a role in shaping affective acute stress responses and behaviors.

Giessing et al., (2019) conducted research that explored coping-related behavior, psychophysiological stress markers and occupationally meaningful measures of behavior to investigate police officer work performance under stress. This research was conducted on 19 police recruits undergoing a RBT shooting scenario in two experiments, one in a low-stress against a non-threatening mannequin and a high-stress involving high-threat by a live role-player.

The purpose of this study was to examine the stress responses of police recruits in RBT and to examine the effects of stress responses and coping-related personality traits on shooting performance. Anxiety levels and physiological stress response were collected to determine if these factors affected shooting accuracy of the student-participants. The researchers hypothesized that the student-participants would experience increased

psychophysiological responses which would result in decreased accuracy in their shooting performance. Upon completion of the scenarios, the student-participants experienced comparable physiological responses, however shooting accuracy did not significantly decrease during the high-stress portions of the experiment. The psychological measures to the stress they were introduced to during their RBT was initially taken by each student-participant to establish a baseline and then immediately after the low-stress scenario and the high-stress scenario. Shooting performance was measured by scores associated with hits to different parts of the opponent role-player's body. Student-participants reported higher levels of anxiety in the high-stress scenario than in the low-stress scenario. This correlates to other research that incorporated high-stress and low-stress conditions for student-participants during firearm use or similar situations (Nieuwenhuys &Oudejans, 2010, 2011; Taverniers & De Boeck, 2014).

The student-participants exposed to high-stress scenario exhibited increased levels of anxiety and mental effort in response to the high-stress scenario, however both the low-stress and high-stress scenarios elicited physiological responses in the form of decreased cardiac vegal activity. Shooting accuracy was low in both scenarios but high dispositional self-control was related to lower levels of anxiety, but impaired shooting performance in the low stress scenario. The researchers posit the attempt to control unwanted emotions might impair the goal-directed focus on the task resulting in reduced performance.

This research reiterated the concept of peace officers understanding and accepting the psychological and physiological stress responses that will occur during high-stress

situations. A thorough understanding of these phenomena will assist to ensure individuals are properly inoculated to stress and can achieve optimal task performance in high stress environments. RBT provides a relatively safe environment to gather and study officer perceptions and coping styles to acute stress without exposing them to real dangers.

Perception and Decision-Making

State anxiety has been defined as an aversive, emotional and motivational state in threatening circumstances and is related to the subjective evaluation of a situation that involves physical danger (Eysenck, Derakshan, Santos & Calvo, 2007 p. 336). Anxiety and the perception of a threat can impact stimulus-driven performance. According to Giessing et al., (2019), self-control has been proven to have facilitative effects on perceptual motor performance under stress, as it can assist in reducing the negative impact of anxiety. Larsson, Kempe & Starrin (1988) conducted research on 54 police officers from the Swedish city of Karlstad regarding acute stress appraisal and coping processes. The researchers found the officer's primary appraisals were heavily influenced by situational context whereas the secondary appraisal was more consistent across situations regardless of context (Larsson et al., 1988). The police officer test subjects reported using more challenge appraisals rather than threat appraisals and implemented more problem-based and emotion-focused coping skills to solve the stressful situation they encountered (Larsson et al., 1988). This tends to indicate specific coping mechanisms for acute stress reactions may be influenced by the individual's cognitive appraisal of the situation (Lazarus & Folkman, 1984; Parkes, 1986).

Renden, Landman, Daalder, de Cock, Savelsbergh & Oudejans, (2015) conducted research to investigate the effects of threat and trait anxiety on state anxiety and how that affects police officer's actions during an arrest. The participants included 88 police officers, 67 male and 21 females with an average 3.5 years of working experience. The officer-participants were directed to enter a room to arrest a role-playing suspect. Half of the officer-participants performed the arrest in a low-threat scenario, where the role-playing suspect spoke in a calm, yet annoyed voice but did not attempt to physically attack. Officer-students in the high-threat scenarios, the role-playing suspect intimidated the officer-students verbally and used aggressive gestures. While the role-player did threaten violence, he offered no more physical resistance than he did against officer-students in the low-threat scenario.

The officer-participant trait-anxiety scores were recorded using the Dutch version of the STAIA-Trait Scale, which consisted of 20 questions concerning how participants generally feel with responses scored using a four-point Likert-scale (Van der Ploeg, Defares, & Spielberger, 1980). To determine student-participant's state-anxiety during the arrest scenario, a visual analogue anxiety thermometer, which student-participants rated their state-anxiety they had experienced during the scenario (Houtman & Bakker, 1989). A trained experimenter analyzed the performance of the student-participants to determine what actions the officer-participants performed and when they performed them. Performance included communication, distance to the subject, proportionality of applied force, quality of skill execution and handcuffing.

The results of the experiments on threat and trait anxiety and how they impacted state anxiety relayed that the officer-participants performed an arrest when the role-playing suspect demonstrated behavior that was non-threatening and threatening, yet the different levels of threat did not lead to different levels of anxiety. However, trait anxiety was found to be positively related to state anxiety, which implied officers who used arrest skills to gain control and arrest the role-playing suspect seemed to base their decision on the level of threat the role-playing suspect exhibited. The level of state anxiety did not influence which tactics the officer-participants used to gain control and arrest the role-playing suspect, based off the perception of the threats made by the suspect. (Renden et al., 2015). The research also demonstrated the officer-participants evaluated if they possessed the required resources to successfully complete a task and performance levels of the officer-participants could conclude that in instances with high-stress levels attention would be directed towards threat-related stimuli as opposed to task-focused stimuli.

Bertilsson et al., (2019) conducted research related to the evaluation of factors that may affect performance while executing stressful tasks. The project involved 12 police officers that were exposed to six scenarios with varying degrees of threat while their heart rate and pupil sizes were monitored. The performance of the officer-participants was recorded and then evaluated by six officers who were experts in the field. When tasks that induced moderate threat in the scenario were repeated, officer-participants reported increases in perception, motor control of voice, general motor control and temporal tactical implementation. Repeatedly performing tasks under

moderate threat had no significant effects on heart rate but pupil diameter decreased overall. Statistical analysis revealed no significant differences between mean heart rate and pupil size during the high threat and moderate threat taskings.

The law enforcement profession requires officers to effectively cope with and control stressful situations. Unfortunately, individuals oftentimes do not know how they will react when exposed to the high-stress environment. While training and experience can assist individuals with performance under pressure, sometimes it is still not enough to determine how individuals will handle a real high-stress situation (Dahl, Granér, Fransson, Bertilsson, & Fredriksson, 2018). While research similar to this has been referenced, this research project differed in that it made officer-participants repeat the tasks involved in the RBT. The results of the repeated tasks impacted portions of the observed performance, heart rate and pupil dilation. The research enhanced understanding on how to measure the effects of high-stress situations on officers using appropriate expert evaluators and biomarkers.

One model used in the law enforcement and military professions for decision-making and the adaptation process that utilizes cognitive appraisal is the Observe, Orient, Decide, Act (OODA) Loop and involves the primary steps individuals take from observing a phenomenon to their response to that phenomenon. This model was designed by Colonel John Boyd during the Korean War to assist United States Air Force pilot's decision-making abilities to defeat enemy aircraft in aerial combat (Rule, 2017). Boyd theorized conflict could be viewed as a series of time-competitive cycles that involve

observation, orienting, deciding and acting, where the slower individual would be defeated. An explanation of this model included the follow:

Observation. In this stage, information is gathered through the senses to absorb all relevant information regarding an unfolding situation to include outside information, emotion, physiological performance and psychological well-being to establish an appraisal of the officer's situation as well as the suspect's. It is important to understand the human visual system does not work like a video camera, the eyes and brain unconsciously and automatically reconstruct the pictures humans receive, and during this reconstruction, the brain adds and removes information (United States Department of Homeland Security, Federal Law Enforcement Training Center. (2011b). Individual perception begins to form at this stage of the process.

Orientation. During the orientation stage, information is processed, and cognitive courses of actions analyzed. Butler, 2017 stated this stage has the officer comparing the information they receive with prior incidents, training, vicarious experiences and generated assumptions to make sense of the stimulus, which contributes to perception and then to the appraisal process. Boyd (1995) posited that without genetic heritage, cultural traditions and previous experiences, humans do not possess an implicit repertoire of psychophysical skills shaped by environments and changes that have been previously experienced (p.2). One of the goals of critical incident training is to safely expose officers to simulated dangerous situations so they can be identified in the orientation stage (Ohio Peace Officer Training Academy, 2018).

Decide. The decision phase permits the officer to take the stimulus he or she is faced with and decide on a course of action. If the proxemics of the stimulus are close and reduces the decision-making timeframe, a subconscious decision will be made, however if the stimulus is further away and there is time to think critically, then the decision-making process will be made cognitively (Good, 2000 as cited in De Becker, Taylor, & Marquart, 2008 p.637).

Act. This stage of the loop executes the action based off the preceding steps of the cycle. Colonel Boyd posited that the victor did not necessarily make the soundest tactical decision, but the one who initiated the quickest action decision that forced the opponent's decision-making loop to recycle (Boyd, 1995).

To understand perception in this decision-making model, filters of an individual's experiences and culture assist in shaping perceptions. These filters, called schemas are cognitive frameworks that assist in the organization and interpretation of information (Cherry, 2018). As numerous stimuli enter the brain, these schemas collect information consistent with a person's experiences, training, hopes, expectations and biases, which collectively affect perception (Federal Bureau of Investigation, 2006). Schemas allow for rapid assessment of a person or situation but also may cause a person to omit important information due to preexisting biases. Undoubtedly, recruits will enter the law enforcement profession with schemas about their community, which may be accurate, inaccurate, partially accurate or partially inaccurate (Federal Bureau of Investigation, 2006). Given the right set of circumstances such as a high-stress situation involving officer hypervigilance, fear or entering situations they have never experienced, officers

who make rapid life-threatening decisions based off faulty schema could make an incorrect decision resulting in the death of another.

Perception permits individuals to see the world in a manner that aligns with preconceived notions (Dror, 2005). The decision to use coercive force against another is the culmination of an intense cognitive process that involves numerous factors. An officer's decision to use force, the level of force used or the avoidance of using force and the consequences is dependent on the officer's perception and appraisal of the situation. The situational clues assist the officer to interpret the situation and make decisions based on risk and threat (Hine, Porter, Westera, & Alpert, 2018).

Verbalization

Humans express thoughts, feelings and ideas orally to one another through a series of complex movements that alter the tone created by voice into specific sounds (United States Department of Health and Human Services, 2017). Speech production begins with abstract mental processes where linguistic units are chosen from memory and formed into a sentence (Dhole & Gurjar, 2013). In order to help safeguard against misunderstandings and initiate the communication process, peace officers are instructed to issue verbal commands to members of the public and suspects as a means of displaying lawful authority and to communicate what their intentions are as it relates to establishing or maintaining control of a situation or individual. Officers are taught that the issuance of verbal commands assists with establishing lawful authority and command presence, allows the public or suspects to know what the officer wants, to create witnesses from others and acts as a mechanism so officers can breathe during high-stress situations (Ohio

Peace Officer Training Academy, 2016) In certain situations, it can be difficult for officers to verbalize while they are performing a physical action, especially if it involves situations involving acute stress or situations that involve the threat of serious harm or otherwise instills fear in the officer (United States Department of Homeland Security Federal Law Enforcement Training Center, 2011b). Verbal communication is cognitively demanding and, while under situations involving extreme stress, it is likely these cognitive functions tend to become disrupted (Lupien et al., 1999; Newcomer et al., 1999; Oei et al., 2006).

A model of verbalization training used by law enforcement consists of a strategy of asking, telling and then making someone comply with lawful orders. This model suggests if appropriate and safe for the officer to do so, he or she can begin by asking the suspect for compliance (Ohio Peace Officer Training Academy, 2016). If asking does not result in compliance, the officer orders the suspect to comply and if the suspect then fails to comply with this order, the officer makes the suspect comply, oftentimes by using physical force (Ohio Peace Officer Training Academy, 2016).

Another model of verbalization is attributed to George Thompson's Verbal Judo Program. According to Thompson and Jenkins (2004), Verbal Judo is designed to educate officers on interpersonal communication and redirect other's behavior and verbal expressions, which can be acrimonious and potentially violent during a police-citizen encounter. This model focuses on ways to deal with suspect resistance to the officer's initial verbal commands. The steps include; ask, set context, give options, confirm non-compliance, act by engaging or disengaging (San Miguel & Rudolph, 2008). These steps

provide the suspect a choice whether to comply or resist, with compliance being a positive outcome and resistance resulting in a negative outcome. If the suspect chooses to resist and the officer makes the decision to use physical force, the manner of verbalization changes. Where the body language, tone and pitch of the verbalization was initially meant to persuade, once resistance is confirmed, verbal communication evolves into verbal commands that combine verbal communication skills along with physical alternatives that are designed to generate compliance (Klugiewicz, 2005). Verbal Judo is essentially a proactive method for solving problems as opposed to simply reacting with an emotional response.

Concurrent verbalization is a process for evaluation through verbalization of task-relevant thoughts generated from the beginning of a task through the completion of the associated task (Fox, Ericcson & Best, 2011). According to Dickson, McLennan & Omodei (2000), concurrent verbalization taken during a complex, dynamic decision task may significantly degrade performance by slowing or distorting some decision-making processes (p. 225). Because of this phenomenon, officers sometimes omit the verbalization process and prioritize performing the physical task. To counter this, Butler (2017) posited, if verbal commands are made simple, such as, “do not move”, or “show me your hands” and are added into psychomotor skill training regimens, such as with physical defensive tactics and firearms, officers will have the ability to move, issue verbal commands and engage with a firearm or perform empty-hand techniques without conscious thought. The importance of training to develop this skillset is vital since

concurrent verbalization could slow performance if the officer is distracted with trying to cognitively decide what he or she is trying to say.

Arble, Daugherty, Arnetz, (2019) conducted research into how physiological arousal following an acute stressor differentially affects police performance across three skill domains: verbal communication, nonverbal communication and tactical skill. Participants in this project were 18 male police officers from the police forces in Sweden, who were fluent in both Swedish and the English language. Officer-participants were placed in a simulated critical incident involving multiple calls for service from dispatch and potentially hostile encounters from three role-players armed with nonlethal paintball-style weapons to assist in simulating physiological arousal.

Upon arriving on the scene of the simulated crime, the role-players were instructed to follow the officer-participant's clear, unambiguous verbal commands and orders when they reasonably comprehended the meaning. Once the officer-participants arrived on the scene of a simulated robbery, one of the role-players was positioned in an open field beside a large building. As the officer-participants approached to make contact, the other two role-players stepped out from the building and one of them shot at the officer-participant with a paintball gun and then surrendered. The scenario concluded once the role-players were handcuffed. An independent police officer observed the responses from an aerial vantage point and rated the police-participants on the following areas; tactics, verbal communication, material maintenance/dexterity, self-control, control of the suspect, control of the public and confidence in incident safety.

The researchers outfitted the officer-participants with heart monitors to record heart rate before and after the scenario, as well as collected blood samples prior to the scenario and upon its completion. Heart rate measurements, antithrombin and cortisol were collected from these samples and measured from pre-incident to post-incident to establish the biomarker. These biomarkers were then used to establish an index of physiological arousal, dubbed, Total Performance Rating, which is similar to the assessments police officers would receive in training and while on duty that represents a summary of training and duty performance.

The results of these measurements indicated that greater increase in antithrombin was negatively associated with verbal communication. This is consistent with previous research that focused on high acute stress levels and high trait anxiety negatively impacted verbal communication (Renden et al., 2017). It was reported that in the current study, the high cognitive demands for the issuance of verbal commands were probably increased due to the officer-participants required to speak to the role players in a language they were fluent, but not native to (Arble et al., 2019). While officers can be prepared through rigorous and reoccurring training to respond with various tactics for a multitude of scenarios, verbal communication is a skillset that cannot be generalized like the use of police weaponry or response procedures.

This research further verified verbal communication and physical performance during a high-stress incident is cognitively demanding and may be impaired during periods of extreme stress (Arble et al., 2019). Prearranged techniques of verbal communication, decision-making and physiological responses that are considered perfect

for every situation that officers may encounter is an impossibility. However, as Arble (2017) states, police recruits may rehearse techniques to increase flexibility and awareness during high-stress situations to permit the cognitive freedom to engage in verbal communication. Once this occurs, it will be interesting to learn if the spoken word in the form of a verbal command can be regarded as a means to effectively cope with the stressful stimulus and cause officers to perceive they are better equipped to maintain control over the situation.

Self-Efficacy

Self-efficacy is the ability to self-regulate and control individual destiny such as the evaluation of the ability to complete a specific task (Firth et al., 2019). Individuals who have a high sense of self-efficacy are likely to appraise situations and implement strategies that reduce threatening behavior or hazardous situations through adaptive coping (Bandura,1997 p. 141). Depending on the level of coping self-efficacy, the appraisal of an acute stressful situation could be perceived either pessimistically or optimistically whether it represented a threat or a challenge. Examples of behaviors include planning, taking direct action and calling for assistance (Anshel et al., 1997).

Konaszewski, Kolemba & Niesiobędzka (2019) researched personal predictors of stress coping styles amongst students with the goal of identifying which trait is crucial in stress coping styles. The traits that were the focus of the study included; resilience, sense of coherence and self-efficacy. Three basic styles of stress coping were studied: task-oriented, emotion-oriented and avoidance-oriented as conceived by Endler and Parker (1990a). The participants included 632 male and female students between the ages of 19

and 25. These students provided information regarding stress coping via the Coping Inventory for Stressful Situations (Endler and Parker 1990a, 1990b), resilience via the Resilience Scale RS-14 (Wagnild and Young 1993) and self-efficacy via the Generalized Self-efficacy Scale (Schwarzer and Jerusalem, 1993).

The reports indicated a positive relationship between self-efficacy and resilience with task-oriented style (Campbell-Sills et al., 2006; Parto and Besharat 2011; Shen 2009; Stratta et al., 2013). Like previous studies, stress-coping style that is based on emotion displayed negative in areas such as self-efficacy, resilience and sense of coherence (Cohen et al. 2008; Dahlbeck and Lightsey Jr. 2008; Krok 2016; Nahlen and Saboonchi 2010; Stratta et al., 2013). Self-efficacy and resilience posed significant predictors of task-oriented styles in males and females, however, with the female participants, self-efficacy and resilience had a positive impact while the male participants reported resilience as the primary predictor.

The results of the study amongst the student-participants demonstrated the stress coping strategies were similar to previous research (Campbell-Sills et al., 2006; Parto and Besharat 2011; Shen 2009; Stratta et al., 2013; Cohen et al. 2008; Cohen and Dekel, 2000; Krok 2016; Pallant and Lae, 2002). While resilience and self-efficacy were partially responsible for emotion-oriented style usage, the primary trait that appeared was sense of coherence. The task-oriented style primarily consisted of self-efficacy and resilience. In addition, there were differences between males and females with females scoring higher in emotional coping style and males scoring higher in task-focused coping style (Konaszewski et al., 2019).

The ability to cope with stress is an important skill to develop and refine throughout life. Resilience, sense of coherence and self-efficacy represent personal traits that are the resources individuals use to manage stress. While this study involved other traits and stress coping styles, self-efficacy was the primary focus of this analysis. General self-efficacy is a component of the stress appraisal process as described by Lazarus and Folkman (1984). The results obtained from this research indicate positive relationships between self-efficacy and the problem-oriented style of coping and negative relationships with the emotion-oriented style (Konaszewski et al., 2019). Viewed through the lens of a peace officer experiencing the negative effects of acute stress, these results tend to demonstrate higher self-efficacy with the source of the stress viewed as a challenge as opposed to a threat.

Schönfeld, Preusser, Margraf, (2017) reviewed research regarding if self-efficacy is uniformly beneficial to individuals and if higher levels of self-efficacy could lead to decreased performance under stress. Their review examined the effects of stress on the idiosyncratic neuroendocrine, behavioral and psychological stress appraisal and coping mechanisms involving self-efficacy and found them to produce different results across cultures. Studies of individuals who did not suffer from severe health problems, perceived self-efficacy was associated with symptoms of other disorders such as depression, psychological distress and psychosomatic symptoms (Holahan et al., 1984; Solberg and Villarreal, 1997; Wang et al., 2014). Other research indicated self-efficacy indirectly impacted mental health and coping mechanisms against stress (Parto and Besharat, 2011). Individuals who have experienced traumatic stress, self-efficacy acted as

a buffer against the negative effects of stress and contributed to quicker post traumatic recovery (Benight and Bandura, 2004).

While self-efficacy has been shown to increase physical performance in some individuals, Schönfeld et al., (2016) opine the research does not fully support the positive effects once different methodological and covariates such as complacency, types of stress, time investment and mental effort are studied. If an individual perceives the task as simplistic, he or she might dismiss the task and not prepare as fully as if the perception was the task was challenging. High levels of self-efficacy might have a negative impact on motivation or performance and lead to complacency. Moreover, Broadhurst, (1957) opined when the difficulty of the task and the motivation to achieve the task exceeds the competencies, performance will decrease regardless if the individual possesses a high level of self-efficacy.

The research Schönfeld et al., (2016) analyzed demonstrated self-efficacy can improve or hinder the psychological and physiological stress responses. As an example, symptoms of depression were found to increase in individuals who felt highly effective to cope with physiological and psychological impairments but could not achieve their expectations (Schiaffino et al, 1991). Perception, increased heart rate, preparation, focus and the importance of the goal effect whether self-efficacy positively or negatively effects the individual. The initial level of self-efficacy, conflicting goals, ambiguity, the value of the task, probability of success and the context all constitute covariates which may impact the relationship regarding biological, emotional processes and performance.

Summary and Conclusions

In this chapter, I reviewed foundational and current literature revolving around stress perceptions, verbal commands and coping mechanisms for peace officers involved in high-stress situations. Despite prior research in gathering the perceptions and lived experiences of officers involved in high-stress situations, it is unknown if the issuance of verbal commands constitutes a coping mechanism to assist the involved officers feel more in-control of situations they encounter. There are many different types of coping mechanisms people can use against stress, however, literature concerning the issuance of verbal commands as a coping mechanism is virtually nonexistent, hence creating a gap from which this research explored. Officers using the cognitive process to communicate verbally with an uncooperative suspect while under the effects of acute stress may assist with the management of psychological distress and impact the overall perception of stress by the officers.

Chapter 3: Research Method

In this chapter, I explain the research methodology, including participants, instruments, limitations, and the collection and analysis of data. The purpose of this qualitative phenomenological study was to explore whether the issuance of verbal commands can act as a coping mechanism against stress for peace officers while they are engaged in high-stress incidents. The qualitative approach was appropriate for this research because it was exploratory in nature and qualitative data are collected to explore and understand the meaning individuals or groups ascribe to social or human problems (Creswell, 2009). Qualitative researchers seek to understand the ways people perceive, approach, and experience the world and interpret the meaning of these experiences as well as the specific phenomena (Ravitch & Carl, 2016). The phenomenological design permits the identification of patterns (Moustakas, 1994) and assists researchers in determining the meanings of human experiences (Ravitch & Carl, 2016). This was an appropriate approach for my research because phenomenological inquiry is used to describe and elucidate the meanings of human experience, with the focus on the meaning, structure, and essence of the lived experience of this phenomenon for this person or group of people (Patton, 2015; Rudestam & Newton, 2015).

Research Design and Rationale

I used a transcendental phenomenological approach for my study. Transcendental phenomenology is "a scientific study of the appearance of things, of phenomena, just as we see them and as they appear to us in consciousness" (Moustakas, 1994, p. 49). This style is marked by the focus of the research on the individuals who provide descriptions

of the phenomena as opposed to the interpretations of the researcher (Patton, 2015). This was accomplished by interviewing participants in addition to observation and note-taking in the field during their RBT. I used these collection methods to obtain additional data as a means of triangulation to validate the interview transcripts. The foundational aspect of interviewing is an interest in obtaining an understanding of the lived experiences of others and the meaning they make of the experience (Seidman, 2006). This helps the researcher reconstruct events the researcher may have never experienced, and through descriptions from separate interviewees portraits of complicated processes emerge (Rubin & Rubin, 2012). The data from the officer-participants in my study were used to contribute to the foundation of knowledge on methods to combat the effects of acute stress for those involved in high-stress situations. My focus for obtaining information regarding the lived experiences of the officer-participants involved in the RBT was guided by the research question: What are the perceptions of stress for peace officers who issue verbal commands to a role-playing aggressive suspect in a reality-based use-of-force critical incident?

Role of the Researcher

I assumed the role as an outside researcher for my project because I had no personal relationship with or influence over any of the participants. There was an opportunity for me to introduce bias into the research because of my background as a law enforcement trainer who has experience in designing and implementing RBT. These experiences have exposed me to acute stress and the high-intensity training that the law enforcement profession offers to inoculate officers from the negative effects of stress on

their performance. I implemented the epoche process and eliminated preconceived notions based on my personal experiences and followed the participant's descriptions of the phenomenon because they were the focus of the research. This required me to bracket my personal experiences with the phenomena and rely on the interviewees' descriptions to assign meaning to the experiences. I designed my interview questions to align with this approach in a manner to capture the essence of my participants' experiences with acute stress, issuance of verbal commands, coping mechanisms, and the simulated critical incident.

Participant Selection

The target population for my research project was peace officers who were enrolled in a training course at a police department that placed them in RBT environments to measure their reactions and performance to the various stimuli they experienced. These participants represented a random, purposeful sample. Because they experienced the stress phenomenon firsthand, they were able to provide detailed information regarding the phenomenon. Purposeful sampling occurs when individuals are chosen to participate in the research for specific reasons, such as they have knowledge of the phenomenon, they have had a certain experience, or they reside in a specific location (Ravitch & Carl, 2016). I did not know the identities of any of the officer-participants until the conclusion of the training course. Patton (2015) stated "purposeful random sampling adds credibility to a qualitative study when those will use the findings have a strong preference for random selection even for small samples; it can be perceived to reduce bias" (p. 268).

The sampling strategy involved 10 peace officers enrolled in the RBT class. Qualitative research samples must be large enough to ensure most perceptions are revealed, while at the same time should not be too large so data become superfluous (M. Mason, 2010). Because all participants were involved in the same training simulations, I assumed 10 participants would be sufficient to achieve data saturation. Although there is no universal standard for sample size, Creswell (1998) noted that phenomenological studies should include five to 25 participants, while Morse (1994) recommended at least six participants. M. Mason (2010) posited that the sample size should support the purpose of the study and be a matter of intellectual judgment based on the logic of making meaningful comparisons and developing and testing the explanations.

Participants were notified via personal introduction at the beginning of the training course. I explained the project to them and requested their assistance. Once I obtained a pool of volunteers, I provided them with information related to informed consent and explained the privacy protections that were set. From there, I furnished my contact information and explained the physical location where the interviews would occur.

Instrumentation

The purpose of this study was to explore the perceptions of stress that officer-students experience when immersed in a RBT environment using verbal commands against a noncompliant role-playing suspect. Semistructured interviews were the primary data collection instrument for this study. The interview questions were developed based on my personal experience, advanced training, and review of the literature. Because I

selected a phenomenological approach to the study, my interview questions ensured content credibility. They were designed to elicit the lived experiences of the participants regarding the issuance of verbal commands as a means to manage acute stress while engaged in the high-stress RBT situation.

The tools used for data collection were two audio recording devices; one was the primary and the other was the backup in the event the primary failed. These audio recording devices were used to capture the dialogue between myself and the participant. I also used note-taking to capture any performance and nonverbal communication during the RBT. A laptop computer was used to download the recorded interviews and served as a secondary storage device. Finally, I used a pen and paper to take observational notes during the interview.

Procedure for Data Collection

The population for my study were peace officers undergoing RBT. The primary data collection method was face-to-face semistructured interviews, note-taking, and observation. The sample size was 10 officer-participants undergoing RBT, with a 30-minute time limit on each interview. Prior to the interviews, I reviewed the process with the participants and had them sign all necessary consent paperwork. The location where the interviews occurred was an area adjacent to the abandoned building where the RBT was conducted. Once the interviews were concluded, I explained that I was going to contact the participant one more time for a follow-up so they could ensure my transcript of their interview was correct or make necessary changes.

Data Analysis Plan

By exploring the perceptions and performance of the peace officers involved in this training, I hoped to gain an understanding of the perceptions of stress for peace officers who issued verbal commands to an aggressive subject, and whether the use of verbal commands can act as a coping mechanism against the negative effects of acute stress during the RBT. To capture the perceptions of the officer-participants, I transcribed the interview transcripts verbatim and then hand-coded and analyzed them. Once this was completed, I entered the transcripts into the ATLAS.ti qualitative data analysis software (QDAS) to discover themes. ATLAS.ti is qualitative data analysis software that permits users to find meaning and relationships and ground those findings in the data (Predictive Analytics Today, 2019).

The Stevick-Colaizzi-Keen method of data analysis (as cited by Moustakas, 1994) was used as my data analysis strategy. This method was selected because it includes phenomenological reduction so emergent textural descriptions are obtained from the raw data. In addition, this method relies on relatively straightforward descriptions of the steps of analysis, as opposed to other methods.

Interview transcripts were manually coded based on this method of analysis. This allowed for the identification and development of data clusters necessary for coding. The steps described by Moustakas (1994) include obtaining a full description of the experience of the phenomenon. From the verbatim transcript of the experiences, I completed the following steps:

1. Consider each statement with respect to significance for description of the experience.
2. Record all relevant statements.
3. List each nonrepetitive, nonoverlapping statement. These are invariant horizons or meaning units of the experience.
4. Relate and cluster the invariant meanings into themes.
5. Synthesize the invariant meaning units and themes into a description of the textures of the experience.
6. Reflect on your own textural description and construct a description of the structures of your experience.
7. Construct a textural structural description of the meanings and essences of your experience (Moustakas, 1994).

This data analysis method seemed to be an appropriate choice for my project because it relied on data being obtained from the researcher's experience.

Issues of Trustworthiness

Credibility

For research to be considered credible, proper procedures and documentation must be followed to ensure the research is trustworthy. The methodology of my study included a well-documented approach, framework, and data collection and analysis process that allows future researchers to recreate my study. Issues of trustworthiness were addressed by the Walden University Institutional Review Board (IRB Approval #07-14-

20-0477246). The IRB exists to ensure the research complies with legal and ethical standards regarding the treatment of human subjects.

Because I am a law enforcement officer and trainer with experience in conducing RBT, I took steps to ensure I bracketed my experiences and preconceived notions and allowed the participants' interviews to lead the research. The research did not occur in my work environment, and I did not have a personal relationship with any of the participants beyond the possibility of being one of their instructors in the police academy. I used triangulation as an additional means to add credibility to my study. Specific methods of triangulation that I used included semistructured interviews with the participants, observation of their behavior and performance during their RBT immersion, thick description of participants' perceptions, and member checks of the interview transcripts. Finally, I implemented the Stevick-Colaizzi-Keen method of data analysis.

Transferability

Issues of transferability and phenomenology were approached by implementing a robust participant selection and data collection strategy. The participants who were used in the study were unknown to me until they volunteered to assist in the project. The interview protocol allowed for rich, thick description of each participant's perceptions and observations. Strategies for establishing transferability included triangulation, peer review, member checking, bracketing, thick description, and external audits (see Creswell, Dutcher, Klein, Harris, & Levine, 2013).

Dependability

To guarantee dependability, I adhered to requirements set forth by Walden University's Center for Research Quality protocols. These protocols included triangulation, which included bracketing, member checks of transcripts, and a detailed description of the research project (see Creswell et al., 2013). A thorough description of the project will permit future researchers to replicate the procedures and audit the project.

Confirmability

Phenomenological research is reflexive-in-nature (Smith, 2013). Bracketing was used to eliminate bias for my research and allow the participant's perceptions to guide the process. One of the strongest steps in the bracketing process was the Stevick-Colaizzi - Keen data analysis method, which demonstrates conformability.

Ethical Procedures

Prior to collecting any data, permission had to be obtained from Walden University's Institutional Review Board (IRB). Once that occurred, all officer-participants were provided copies of informed consent forms along with a thorough explanation on the goals of the research. The identities of the officer-participants are protected by a coding system and interview recordings and transcripts are secured at my home.

Summary

The primary focus of this chapter revolved around the overview of my study. Part of this overview included methodology, the role of researcher, instrumentation, data collection and analysis and issues with trustworthiness. As described throughout the

chapter, the focus of this phenomenological study was understanding the perceptions of stress for peace officers who issue verbal commands to a role-playing aggressive suspect in a scenario-based use of force critical incident, and what role does the issuance of verbal commands play in the perception of stress for peace officers who encounter an aggressive role-playing suspect in a simulated critical incident will be the focus of my study.

Chapter 4: Results

An officer's perceptions of stress while issuing verbal commands to a noncompliant, aggressive role-player in a training scenario was the basis for this research project. The training scenario was developed and instructed by a police agency during the summer of 2020 and consisted of a single officer response to an active threat. Officer-participants were briefed that a disgruntled employee entered a business and began shooting people with a firearm. To make the scenario as realistic as possible, an abandoned building was the training location and Simunition-style training handguns and marking cartridges were used by the role-player and officer-participants. These nonlethal marking cartridges consist of a detergent-based projectile that is fired from a realistic-looking training pistol at high velocity, which can cause bruising on exposed skin. Because of this, strict safety protocols were used that required all participants and instructors to wear safety gear that protected the face, throat, head, and groin. Although this level of protection was required, the form-fitting style of the protective armor was not so bulky that wearers no longer resembled human beings. This was an important element to the threat and stress perceptions by the officer-participants. Early military training indicated soldiers could become inoculated to stress and killing by discarding bullseye-style targets in favor of realistic human-style pop-up targets that fall when hit by a bullet (Grossman & Christensen, 2004).

Once the officer-participants were briefed on the scenario and entered the building, they had to complete basic building search techniques while searching for the role-player threat. Other role-player victims would suddenly emerge out of rooms, some

screaming to increase the stress on the officer-participant. The threatening role-player was positioned in a location within the abandoned building where he could observe the tactics the officer-participants used in their search. After a brief period, the threatening role-player would emerge and begin shooting at the officer-participants with the training firearm. The officer-participants had to maintain cover, issue verbal commands, manage the victim role-players, and deliver simulated deadly force against the threatening role-player.

Once the training had concluded, the officer-participants met with me for the interview process. Because I was focusing on a narrow aspect of stress perceptions with individuals who experienced the same script during their scenario, I chose nine officers to interview; however, one officer who was not originally selected to be interviewed felt the research was important and wanted to assist in the project, so he became the 10th interviewee. All interviewees were male peace officers except for one, who was a firefighter and medic who is certified as a special weapons and tactics (SWAT) medic who trains and deploys with the police department's SWAT team. In terms of rank, the participants included patrol officers, sergeants, detectives, and the firefighter medic. All interviewees had at least 1 year on the job with the most being 27 years, and all had previous experience participating in RBT. I observed each participant's performance in the scenario and took field notes to assist me with the interview process.

The interview process took place in an area adjacent to the training location and lasted approximately 5 minutes. To maintain confidentiality, each interviewee was assigned a code from A-1 through A-10, so identities would not be disclosed. The

interviews were recorded on a digital recording device. Once all interviews were conducted, I made copies of the recordings and began transcribing them. Transcribing the recorded interviews permitted me to listen to the interviews numerous times, which is the initial step in the modified Stevick-Colaizzi-Keen method of data analysis as utilized by Moustakas (1994). As a means of member checking, I e-mailed each participant their interview transcript and asked them to review and reply with any revisions. No interviewee required any revision to their transcript.

In a qualitative research project, establishing credibility is a vital step in the process. The credibility of this research project was established by the implementation of the triangulation process. Because I am a law enforcement officer and trainer with several years of experience in the RBT environment, I exercised caution not to permit my experiences to bias the research. I accomplished this by bracketing any preconceived notions and experiences and followed the descriptions stated by the officer-participants to guide the research. In addition, credibility was achieved by member checking the interview transcripts, observations, and field notes during the scenario, as well as using a modified Stevick-Colaizzi-Keen method of data analysis, as recommended by Moustakas (1994). Finally, all interviewees experienced the same phenomenon as they were immersed in the same scenario.

Issues of transferability were approached by implementing a robust participant selection and data collection strategy. The participants were unknown to me until they volunteered to assist in the project. There was a possibility that I might have been one of their instructors in the police academy. As it turned out, three of my previous students

from several years ago were among the group of officer-participants; however, I communicated that the previous relationship should have no bearing on their responses to my interview questions. Walden University's IRB process has specific procedures to follow when dealing with potentially vulnerable populations such as adult students of the researcher. Based on the topic of the research and questions asked, I observed no feelings or behaviors that indicated that participants felt I steered them to respond to my interview questions in a specific way. The interview protocol allowed for rich, thick description of participants' perceptions and observations.

Dependability of this research project was met by meeting the requirements set forth by Walden University's Center for Research Quality. These protocols include triangulation, bracketing, member checks of transcripts, and a detailed description of the research project (Creswell, 2013). A thorough description of the project and interview process will permit future researchers to replicate the procedures as a means of auditing the project.

Phenomenological research is reflexive (Smith, 2013). Bracketing was used to eliminate bias for this project due to my experience as a law enforcement officer and trainer with experience in RBT. The bracketing process was used to allow the participants' perceptions to guide the process (Creswell, 1998; Moustakas, 1994). In addition to the bracketing process, I used a modified version of the Stevick-Colaizzi-Keen data analysis method, which demonstrated conformability.

Central Research Question Findings

The research question was the following: What are the perceptions of stress for peace officers who issue verbal commands to a role-playing aggressive suspect in a scenario-based critical incident? To answer the central question, I first transcribed the interviews and developed a word cloud (see Figure 1) for a visual representation of the most common word frequencies used throughout the transcripts.

Figure 1. Word cloud for most common word frequencies.

To analyze the data, I hand-coded the transcripts through the lens of the research question. Once completed, I loaded the data into QDAS for thematic analysis. The identification of nonrepetitive nonoverlapping statements, as highlighted in the Stevick-Colaizzi-Keen method of data analysis, was nonexistent as all officer-participants responded in similar ways. From the analysis, four themes emerged: stress and anxiety, realism, breathing via the issuance of verbal commands, and perceived control.

Theme 1: Stress and Anxiety

All participants reported experiencing stress and anxiety during the scenario. Participant A-10 stated, "With hands-on training like this, with Simunition rounds being shot at you, your adrenalin is definitely up, you think differently when you are being shot at…much different than a classroom-based training or a walk through." Participant A-9 shared that, "The majority of police training involves one-dimensional paper silhouette targets that do not move…it's nice to have a live person that shoots back at you, you're feeling the pain if you get shot…definitely high-stress." Participant A-4 stated, "It was definitely stressful, walking into the unknown, you don't know what you're going to encounter." Participant A-2 is a 27-year veteran of the police department and shared, "Oh yeah, this was stressful…training in the early years lacked a live role-player stimulus to get real-world feeling and experience….Simunitions helped a lot too…it's the closest thing we can get to real-world incidents." Participant A-3 stated, "It is stressful because you just don't know what you're walking into…just like out on the street, the unknown."

Theme 2: Realism

All participants reported the scenario was extremely lifelike and produced fear, stress, and anxiety. Part of the reason for this was the selection of an abandoned building as the location where the scenario took place. None of the officer-participants were familiar with the inside of the building, so it raised anxiety levels as soon as they entered. Another reason the training was realistic was the use of live role-players and Simunition nonlethal training cartridges that were used by the officer-participants as well as the role-player aggressor. The use of marking cartridges produces a pain response that allows

participants to know when they have been shot. This pain penalty permits a high degree of realism for RBT even though all participants were outfitted with protective gear. Participant A-9 stated, "It definitely heightens your awareness…you train better because there is a risk that you may get hurt." Participant A-9 continued, "Usually when we do scenario training, we do it with unloaded firearms…once we loaded the Simunition rounds, your adrenalin is going, you've got the fear going…it's exhilarating." Participant A-1 is a 23-year veteran of the police department and shared, "It is hard to be realistic with the paper silhouette targets, I would rather see live role-players…it is much more stressful and realistic when real people were used."

Theme 3: Breathing via Issuance of Verbal Commands

All 10 officer-participants mentioned the importance of issuing verbal commands during the scenario because it is a means to maintain their breathing and directs victims and suspects what to do. It is not uncommon for officers to forget to breathe or to hold their breath when exposed to high-stress situations. I have witnessed this phenomenon after several years of conducting defensive tactics training as a law enforcement trainer in the basic police academy. Participant A-3 stated, "I tend to hold my breath if I'm not careful, so talking does both, it forces me to breathe and give them direction of what they need to do." Participant A-9 stated, "It gives me more confidence because I am breathing…lets victims know I am not a threat to them." Finally, Participant A-5 stated, "Yes, I was talking, it forced me to breathe because a lot of times you forget to breathe during the scenario."

Theme 4: Perceived Control

The perception that the officer-participants were in control of the scenario as well as themselves also emerged as a theme, although it was closely related to the issuance of verbal commands and breathing, as well as self-efficacy. Lazarus &Folkman (1984) described self-efficacy as a component of the stress-appraisal process. Although I did not explore self-efficacy or coping styles of the officer-participants, resilience, sense of coherence, and self-efficacy are the resources individuals use to manage the negative impact of stress. Participant A-6 stated,

> I felt a little bit more in control when I used the verbal commands specifically because when on the street when we have to raise our voice to people they typically hear us a lot more because the situation is already amped up…basically authority voice commands.

Participant A-7 stated,

> It helped me feel like I had a little bit better control of the scenario, whether or not they complied…if they complied, it definitely helped me feel like I had control of the scenario…if they didn't, I guess it kind of gave me an indicator of how the scenario might play out.

Participant A-9 shared,

> Yes, yes, it actually gives me more confidence because I'm breathing, I'm moving, I'm interacting, I'm verbalizing to some people why I'm doing what I'm doing…let me see your hands, letting them know that I'm not a threat to them,

and I'm not trying to be a threat to them, and they are not a threat to me to try to get to where I need to get to.

Subquestion Findings Theme 1: Breathing

The subquestion for this study was the following: What role does the issuance of verbal commands play in the perception of stress for peace officers who encounter an aggressive role-playing suspect in a simulated critical incident? From the analyzed data, a single theme emerged. All but one of the officer-participants commented on the need to breathe during the scenario, which was accomplished by the use of verbal communication toward the role-player victims and aggressor. Participant A-2 stated that verbalization was a deficiency of his and he probably needed to do more. Interestingly, this participant had the most years of service at 27 years as a police officer. However, during the observation of his performance in the scenario, he did verbalize toward the aggressor by yelling, "Stop!" I suspect this participant did not remember how much he verbalized during the scenario, which could explain how rehearsed, simple verbal commands could become an automatic response in situations such as these.

All other respondents identified the use of verbal communication as the primary means from which to ensure they were breathing. Examples of the verbal commands issued toward the aggressor included, "Police, get on the ground, drop the weapon, show me your hands." Examples of verbal commands issued toward the role-playing victims included, "Police, where is he (the shooter), come towards me, who's shooting."

Moreover, verbal commands were also listed by the respondents as a way to establish command presence and to communicate with the victims the officers were not a

threat to them, only the aggressor. When asked about the use of verbal commands, Participant A-3 stated, “I did, especially with victims and witnesses…for me, verbal commands helps with the anxiety of being able to work through something, keep your heart rate down, keep your breathing under control…it keeps me under control so I could focus”. Participant A-4 shared, “I think it definitely helps control your stress level a little…you are yelling your commands which relieves stress and brings down the built-up anxiety levels you have”. In a similar manner, Participant A-5 stated, “I always announce who I am and what I want, to get a dialog started with whoever else is in there…yes, I was talking because it forced me to breathe, a lot of times in scenarios you forget to breathe”.

Significance of the Findings

The findings of this research project are relevant because they provide insight into stress and coping research by reporting what perceptions officer-participants encountered after they were immersed in a high-stress RBT environment. All participants experienced the exact same scenario and then described their perceptions and experiences. Preparing officers to perceive both lethal and non-lethal threats in high-stress situations requires them to understand the potential stressors they might encounter so they can develop appropriate and legal coping mechanisms to counteract these stressors. RBT can provide and enhance the self-efficacy required to lessen the impact of the negative effects of acute stress when it requires officers to confront the same type of threats he or she has already experienced during the training process (Wollert & Quail, 2018).

Summary

Chapter 4 explained the findings of the research and relationships between the research question and sub question and the officer-participant responses whereas Chapter 5 will include interpretations, discussions, recommendations on future research and views on positive social change. The purpose of this qualitative, phenomenological research study was to explore how peace officers perceived stress as they were immersed in a RBT environment and had to face an aggressive role-player. Specifically, the purpose of the study was to explore the themes that emerged from their experiences in the training scenario. Data was collected via face-to-face semi-structured interviews that were recorded at the conclusion of the training scenario. Once the interviews were transcribed, they were hand-coded and then analyzed. Once completed, I entered the data into the ATLAS.ti QDAS for additional analysis. Four themes emerged from the data that assisted in answering the research question; *Breathing via Verbal Commands, Realism, Stress and Anxiety and Perceived Control.* The sub question produced a single theme, *Breathing*.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this qualitative phenomenological study was to explore the perceptions of stress for peace officers who used verbal communication against a simulated aggressor while immersed in a training scenario and what role verbal communication played in the process. The qualitative approach was appropriate for this research project because this method of inquiry is used to understand individuals and phenomena in their natural settings in ways that are contextualized and reflect the meaning that people make out of their own experiences (Ravitch & Carl, 2016). Findings revealed themes that emerged from the officer-participant interviews regarding their firsthand experience with the phenomenon.

A single research question and a subquestion guided the research. Data were collected via semistructured interviews until no new information was received. Once the interview transcripts were coded and analyzed, the responses emerged in the form of four themes along with a single theme for the subquestion. The research question was the following: What are the perceptions of stress for peace officers who issue verbal commands to a role-playing aggressive suspect in a scenario-based use-of-force critical incident? The subquestion was the following: What role does the issuance of verbal commands play in the perception of stress for peace officers who encounter an aggressive role-playing suspect in a simulated critical incident? The themes that emerged from the data analysis were *breathing via verbal commands, realism, stress and anxiety, and perceived control*. The theme that emerged from the sub question was *breathing.*

Interpretation of the Findings

Literature that addressed the stress perceptions of peace officers who issue verbal commands to a role-player aggressor during a high-stress scenario was not found. To establish a background for the study, I explored parallel populations such as military members and athletes to obtain similar sources for data. I was able to use this information to guide the research and find answers to the questions.

The themes were consistent with the findings from Andersen et al., (2015) and Andersen et al. (2016) that training does not seem to reduce the physiological arousal to calls for service involving higher risk. Perhaps the perception of the involved officers as to the danger of the call for service is a determining factor in the level of physiological arousal (Baldwin et al., 2019). All officer-participants in the current study stated they had previous experience in RBT and all had professional experience ranging from 1 year to 27 years. Because they attended the classroom portion of the training describing the historical aspect of school and workplace shootings, they had an idea of what type of scenario they would encounter; nevertheless, they reported that their perceptions of the scenario were highly stressful. The use of live role-players armed with Simunition nonlethal training ammunition may have influenced this response.

In terms of realistic training scenarios and coping with acute stress, Andersen et al., (2016) stated that officers who were not exposed to high-stress scenario-based training may not be prepared for real-world critical incidents due to a lack of experience making decisions under those demands. In training that simulates real-world encounters, high realism places officers in physical contexts that look, sound, and feel authentic. The

measurement of the officer-participant's stress reactivity provided objective physiological evidence of the realism of the scenarios. Results of Andersen et al.'s study indicated that officers' physiological stress to a high-stress scenario was significantly correlated to the stress response of active duty officers, whereas stress responses during classroom-based scenario training was minimal and did not significantly relate to stress responses related to real-world situations or high-stress scenarios. All officer-participants in my study had previous experience with RBT and reported the scenario was highly stressful, but none demonstrated or reported having any difficulties with cognitive thought or physical performance. This seems to confirm findings from previous studies that immersing officers in a high-stress environment and requiring them to make decisions will aid them in doing so in real-world situations (Arnetz et al., 2013; Arnetz, Nevedal, Lumley, Backman, & Lublin, 2009).

Regarding coping with stress and realistic training, my findings seem to confirm those from Andersen et al. (2016) and Oudejans & Pijpers (2009). Although all officer-participants in my study reported high amounts of stress during the scenario, none demonstrated any visible hesitation or degraded performance. All officer-participants reported having previous experience training in RBT. This finding appears to confirm that officers participating in realistic, high-stress RBT can experience the same level of stress as officers in an active duty high-stress situation. Training in this manner can assist in inoculating officers to the negative effects of acute stress, thereby improving their coping skills and sharpening their cognitive actions such as verbalizing.

The use of a live role-player aggressor armed with a nonlethal training pistol and marking cartridges tends to confirm Taverniers et al.'s, (2011) research. Their study consisted of comparing the stress experienced during high-realism practice with the stress of a control group that practiced in identical circumstances without the risk of being shot at by a role-player aggressor armed with a training pistol. Their results indicated that despite the significantly higher subjective and objective stress levels, the participants in the high-realism group reported more active learning. My findings also indicated RBT-enhanced individual perception in terms of acquired skills and competencies for the officer-participants. When questioned regarding his perceptions during the scenario, Participant A-1 stated, "It is hard to be realistic when paper silhouette targets are used, I would rather see live active people used acting as victims or active threats…the scenario was very stressful when real people were used." When asked if they had participated in any type of RBT before, Participant A-6 replied,

> Nothing that involved Simunition…most of it involved impromptu training coming off patrol or coming in during a break from patrol and doing room clearing with SRT members…this scenario was definitely stressful and anxiety-inducing...we definitely need to do it more often than during the required annual training.

Finally, when questioned about whether he experienced any type of stress or anxiety, he replied, "Oh absolutely, with hands-on training like this, with Simunition rounds being shot at you, your adrenalin is definitely up and running and it makes you think differently than being in the classroom or just doing walk throughs."

The premise is that the risk of experiencing physical pain stimulus in the form of being shot causes significant increases in cortisol secretion and a reduction in overall working memory. Although officer-participants' working memory levels or cortisol secretion were not measured in my study, all reported that the use of realistic scenarios with live role-players and Simunition training firearms increased their stress levels considerably. Delahaij & Van Dam (2017) investigated the role of coping style and coping self-efficacy in military recruits' appraisal of emotions and subsequent coping behavior during a high-stress exercise. The results confirmed that coping style affected coping behavior, and coping self-efficacy played a role in shaping affective acute stress responses and behaviors. Although task-focused and emotion-focused coping was not addressed in my study, negative appraisal emotions such as anxiety were reported by the officer-participants. None of the officer-participants demonstrated or stated they had any cognitive or performance decrements during the scenario. This might be explained by the basic and advanced training the officers receive that involves stress inoculation or the requirement to remain focused when dealing with danger or confrontation.

Observation of the officer-participants in my study seemed to confirm the research phenomenon identified by Arble et al., (2019). In their research they explored whether physiological arousal following an acute stressor differentially affects police performance across three skill domains: verbal communication, nonverbal communication and tactical skill. The results of these measurements indicated police officer cognitive performance during a critical incident simulation is affected by physiological arousal with high trait anxiety that can produce poor verbal communication

during an arrest (Renden, 2017). However, while verbal communication is cognitively demanding, well-rehearsed, verbal commands and procedural skills are relatively unaffected (Arble et al., 2019). All officer-participants in the current study issued verbal commands to the role-player aggressor, as well as verbally communicated with role-player victims. This may have been due to their previous experience with RBT or due to rehearsing pre-arranged verbal commands such as, “Show me your hands”, “do not move” and “get down” to the point of automaticity.

The theoretical framework for my study was Lazarus and Folkman’s transactional theory of stress and coping. This theory was selected to guide my research project because it posits that stress is conceptualized as a relationship between the individual and the environment that is appraised by the individual as taxing or exceeding his or her ability to effectively cope with the stress, leading to feelings of personal danger (Folkman et al., 1986). Part of this transactional process involves the appraisal or perception of the stressful event rather than the event itself that determines if coping strategies are initiated to negate the stressor (Lazarus, 1991;1999). The amount of the demands an individual perceives and the number of resources they possess to deal with the demands can impact how an individual copes with the situation.

All officer-participants in the current research reported experiencing stress even before locating the role-player aggressor. Once the role-playing aggressor appeared, all officer-participants moved through the primary and secondary appraisal process rapidly and shot the aggressor until the training sergeant called for the scenario to end. Because they were given a description of the scenario beforehand, this more-than-likely assisted in

their psychological preparedness for the threat in the form of an aggressor armed with a firearm who was shooting people.

Interestingly, the officer-participants were not briefed beforehand there would be live role-playing victims used in addition to the armed aggressor. From the observation I conducted, it appeared as if the initial cognitive reaction to the screaming role-playing victims was relatively slower than the reaction to the armed aggressor. As the officer-participants reacted to the sudden appearance of the live victims, they moved through the primary and secondary appraisal process with more caution than they did with the aggressor. Not knowing if the role-playing victims represented a threat, the officer-participant's cognitive processes were initiated as they visually scanned the victims to ensure they were not armed, then communicated verbally with the victims asking where the aggressor was and attempting to remove the victims from the dangerous situation.

This demonstrated the primary and secondary appraisal process where the officer-participants initially perceived the victim role-players as threats and then, once they determined they were not a threat, the perception switched to a challenge such as how to protect the victim role-players from the role-playing aggressor. The coping process against the negative effects of acute stress was demonstrated as officer-participants were completely surprised by the sudden appearance of the screaming victim role-players. The sudden and loud introduction of people who did not represent threats to the officer-participants demonstrated how, with the inclusion of verbal communication, the officer-participants maintained control of their breathing and engaged their cognitive thought and

decision-making processes without losing control or shooting any of the victim role-players.

Limitations of the Study

As mentioned in Chapter 1, the topic of my research has not been fully studied by other researchers, so most of the literature was derived from parallel populations. Other limitations of this study consist of a common issue with qualitative research in that the data may not be generalizable due to the subjective nature of the officer-participant responses of the phenomenon and the relatively small sample size. Data saturation was achieved after conducting 10 interviews. The small sample size was intentional as the focus of the research depended on obtaining rich, thick descriptions of the experiences and perceptions of a specific group of peace officers who all experienced the same scenario in the RBT. Because of these factors, re-creating the research with a different population who did not have the field experience or prior experience participating in RBT may make generalizing the findings with other groups more difficult.

Another limitation may include officer-participant truthfulness in their responses to the interview questions. Certain members of the law enforcement profession are suspicious-by-nature which could have caused some responses to be modified since I was observing their behavior during the scenario and then asking questions following their training. If the responses were modified so officer-participants would portray a positive image to their peers and police administration, the credibility of those responses would produce false outcomes for the rest of the research.

Another limitation could be how I, as the researcher interpreted the data. The interview responses are subjective, and this subjectivity could have caused me to err in my analysis. While I implemented the bracketing process and worked to eliminate all bias and preconceived notions from my interpretations, perhaps another researcher with difference experiences would interpret the data differently. Because this could call into question the overall trustworthiness of the research, I followed the triangulation process and used the ATLAS.ti QDAS to reinforce my findings.

Recommendations

To obtain additional insight into the lived experiences and perceptions of stress for those who use verbal communication against a non-compliant role-player in a RBT environment, this qualitative phenomenological research study should be replicated. A grouping of officers from other agencies across the nation including those who have never experienced RBT should be selected to further the research. While this study utilized a relatively small sample size, future research could focus on a larger and more diverse sample, including such areas as gender, ethnicity, education level and other demographics.

Increase research and curricula on verbalization and stress management training from basic peace officer academies to departmental re-qualification. This information is particularly important for law enforcement administrators and training officers as they will bear the responsibility of introducing and maintaining the program. The importance of verbal communication in the form of the issuance of verbal commands whilst under extreme stress and task overload cannot be overstated. This effort could provide a

widespread training program that focuses on the development of cognitive skills such as stress inoculation and management, attentional focusing and verbalization. As this research demonstrated, a new understanding of how the issuance of verbal commands can assist officers with stress perceptions and to effectively cope with the negative impact of acute stress is a potentially lifesaving area should be explored.

Increase acute stress exposure through RBT for all peace officers on a regular basis. Proper and safe RBT can be costly, however, ensuring officers are armed with this knowledge prior to and at recurring times throughout their careers is the responsible action to take. The research on stress inoculation and interviews with the officer-participants in this study suggest that stress exposure training via RBT can be an effective strategy for increasing cognitive processes such as verbalization and decision-making, as well as reducing the negative effects of acute stress while enhancing self-efficacy.

Implications

None of the officer-participants relayed they had any verbalization training beyond their basic academy or information related to verbalization as a coping mechanism against the negative impact of acute stress. Some participants shared they tended to hold their breath and sometimes forgot to breathe during high-stress situations. If it were not for their issuance of verbal commands that kept them breathing, it is not difficult to imagine some officers experiencing catastrophic failures in perception, decision-making and performance during the scenario. It is my hope that this research project will lead law enforcement leadership, policymakers and trainers to make this

information available to cadets and working officers with the same importance as other officer survival information.

Positive Social Change

The law enforcement profession is unique in that officers respond when called upon regardless of circumstance or danger. In doing so, officers' perceptions of stress and their reaction to those perceptions can produce positive outcomes or have disastrous results. The training needs of the law enforcement profession are oftentimes regulated by civil litigation, media sensationalism and community outcry. In many departments, it takes a tragedy before the police administration is motivated to conduct an honest evaluation of their training program. As we have witnessed with the civil disobedience and violence over the past few months, quality police training is no longer a luxury but an essential part of the profession.

Regularly exposing officers to RBT environments that focus on cognitive and physiological performance will assist in providing exposure and context to real world incidents, better preparing officers for decision-making under the stress of a critical incident. Positive social change results in the improvement of individual and social circumstances. The protection of human life is the noblest of callings and this knowledge is well-designed to help with this calling. Officers who are fully prepared to face the intense demands of a high-stress situation using their full cognitive and physiological abilities are better equipped to protect their own lives, the live of those they interact with and the community as a whole.

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