Evaluating the Concepts of the Tarde Imitation Theory and Its Impact on Training

Effectiveness For Law Enforcement In Times Of Disaster

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I have no known conflict of interest to disclose.

Dedication

I dedicate this work to my mother, Dorothy Meyer, for her unwavering support through prayer and encouragement. Also, to my wife, Traci Walker, for providing a home environment that allowed me to make it through the process.

Acknowledgement

Thanks be to Christ for his guidance in this project and my life,

All for the Glory of God.

"One generation shall praise thy works to another and shall declare thy mighty acts."

Psalms 145:4 KJV

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Abstract

This paper looks at the effectiveness of Federal Emergency Management Agency (FEMA) training from the perspective of those using the training. In addition, it looks at how the Imitation Theory developed by Tarde may or may not impact effective training, specifically in response by those exposed to a large-scale disaster. The researcher accomplishes this study through qualitative analysis of interviews conducted in the Panhandle of Florida with those who have had some FEMA training and have had at least one personal experience with a large-scale disaster. The researcher discovered that it is common for those working in the Panhandle of Florida to have multiple experiences because of the size of many hurricanes and because many of the disasters require large-scale responses from multiple agencies. Even if the storm does not hit a particular jurisdiction directly, personnel from a jurisdiction may still respond to assist the impacted area. This mutual aid response exposes the responders to similar stress levels as those responding in their areas. The research revealed that training seems effective but that there is a need to develop additional stress management tools that mentors can use in the future.

Keywords: FEMA, Imitation Theory, Tarde, Florida, Emergency Management, disaster response, training effectiveness, training perspectives, stress management, mentoring.

Overview

This qualitative study explores law enforcement officers' training to manage a disaster on various levels is adequate, given the overwhelming physical and psychological stressors associated with major disasters. The researcher focused on disasters that have a wide impact, primarily hurricanes, because those are the types of disasters that impact large parts of a community, are likely to involve multiple jurisdictions, have a wide geographic boundary, and will stress the responding agencies both professionally and personally. A literature review has provided a focus to help understand the issue and identify gaps in the current literature. The application of Tarde's Imitation Theory helped give direction to the exploration of this topic. Tarde's theories were developed at the turn of the last century, fell out of favor, but have come back into consideration because they follow a logical progression: innovation is imitated by others (Tosti, 1897).

The Imitation Theory has three components that work together to determine whether the trainer will likely be effective. These components include an understanding that the degree of imitation is related to exposure time to the individual being imitated by the trainee, that there is a ranking between the instructor and the member, and that the goal is to replace old habits with new ones (Linebach & Kovacsiss, 2022). This concept is supported by work from other researchers that acknowledges that trainees need good models to be effective (Abramovitz et al., 2019). When the trainer does not accomplish this, trainees tend to revert to what they think is best (Cordner, 2016). Therefore, this theory will be the basis for the analysis.

CHAPTER ONE: INTRODUCTION

The Historical Context of Disaster Training Effectiveness

Professional law enforcement has a long and complicated history in the United States. Experts often break the development of law enforcement into various periods, but what has been consistently missing until recently is disaster response training. Law enforcement agencies began to fill this void after the terrorist attacks on September 2001 (Graham et al., 2016). What is not clear is if the training is practical or if other considerations have to be considered by researchers, such as a police subculture, resistance to outside training, or other factors that may impact how the training is perceived and then put into action when the time comes (Elliott et al., 2019). For training to be practical, there needs to be a connection between the practitioners and the trainer. This need was recognized many years ago by leaders in the law enforcement community.

The need for advanced training was outlined more than one hundred years ago by police leaders like Chief Volmer, but there was a departure from this concept when academia and practitioners drifted away from one another (Lumsden, 2016). Cordner (2016) identified the historical eras of policing and how these eras reflect the professionalization of policing over time. This recognition of the progress of the professionalization of policing is an essential step in the discussion by researchers on how professionalism and training can help reduce the stress in law enforcement because this allows for good training to be implemented by those who are qualified, not just other officers (Werth, 2011). In addition, this recognition allows for a carry-over into disaster response training by police, specifically in large-scale natural disasters (Rojek & Smith, 2007). Furthermore, this allows for recognizing that there may be some stressors that cannot be overcome by those involved, which could trigger Post-Traumatic Stress Disorder, commonly known as PTSD (Bernard et al., 2008).

Problem Statement

The problem is that police officers continue to suffer from PTSD and other related stressors while working in law enforcement from a variety of events that the officers are exposed to over the course of their careers (Linebach & Kovacsiss, 2022). In the past, officers had hidden these issues behind alcoholism, bravado, and different masks in an attempt not to appear weak and to avoid public ridicule (Cheong & Ganapathy, 2016). A qualitative study is needed to understand this issue broadly, but there is an additional need to understand how large-scale disasters impact those responding in law enforcement. Researchers have begun to look at the issue of how resilient officers are but have identified a need to go deeper into the topic of resiliency and PTSD (Janssens et al., 2018). The research done by Janssens et al. (2018) will be the basis for further development of this topic and a search for how those involved with large-scale disasters can become more resilient.

The study will use ethnographic techniques to allow the researcher to explore the root causes of different aspects of the particular phenomenon (Glesne, 2016). These issues need to be explored by researchers to improve the quality of law enforcement responses. Having a disaster overwhelm the first line of defense could result in a total collapse of social rules within the area impacted by the disaster, further degrading the conditions for all involved. Beckman (2015) identified this issue with Red Cross workers, and others have identified this as an issue after Hurricane Katrina within the New Orleans Police Department (Bernard et al., 2008).

Resistance to Training

Although police officers are in a unique subculture, they are human beings, which means they are subject to the same stress issues as the greater community. All stakeholders, including the officers, administration, and the community, must acknowledge that there is often the need to

put controls in place to manage life-threatening situations, remove autonomy, and the ability to make independent decisions (The GIHRE Project, 2016). This truth must be taken into consideration and evaluated by researchers. Police officers tend to lean toward independent thinking and work patterns in training, even when a proven, outcome-based plan is in place (Dayan et al., 2019). The resistance to the overall issue is part of the problem.

Constructivist Epistemology and Ontology

The body of knowledge written by experts on law enforcement stressors related to perceived training quality is limited, with authors such as Janssens et al. (2018) pointing toward an issue of PTSD and resiliency but not offering a clear solution (Janssens, van der Velden, & Taris, 2018) Although, various literary sources relate to disasters and how the general population responds, such as the work done by Coleman and Scott (2015), researchers or authors have studied precious little on how law enforcement sees their role. Researchers must further explore this area to determine what else needs to be learned by the researchers about the components and how they work together through the eyes of the practitioners.

Research must review the literature and determine what was assessed in the studies by researchers versus what practitioners may think, thereby removing opinion and replacing it with evidence-based practices (Dayan et al., 2019). From there, researchers can move forward with exploring what can be learned from additional focused ethnographic or narrative analysis, seeking as much data as possible to get to the root of the problem (O'Leary, 2015). Once the researcher reviews and understands the literature, he can establish a plan to seek more information through interviews, which will seek to add to the body of knowledge in the community.

Purpose Statement

This exploratory study aimed to identify the problem of training effectiveness for law enforcement officers and formulate a solution to address the problem. This researcher used a phenomenological approach to uncover the issues. The researcher conducted in-person interviews with individuals from agencies in the Panhandle of Florida who had self-identified as having received emergency response training from FEMA and had at least one experience with a major disaster, focusing on hurricanes, but allowing for any large-scale disaster.

Significance of the Study

Response to disasters is a critical duty for police officers and other first responders. Because of this critical response, training effectiveness needs to be evaluated by scholars so that trainers can provide the best and most effective training to first responders. In addition, as a result of first responders often being personally involved in the disaster in large-scale events and exposed to stress not found in training, the impact of practical training is even more critical. The FEMA is the government agency that conducts most disaster training in the United States (FEMA, 2020). This vital responsibility means that those running the training must be ready to ensure that law enforcement officers will use the training under stress in a large-scale disaster scenario.

Research Question

The research determined the relationship between law enforcement disaster training and its effectiveness when the time for using the information developed. In addition, this process explored the qualitative nature of this relationship.

RQ1: How do law enforcement officers trained for large-scale disaster response feel about the adequacy of training?

Definitions of the Terms

Disaster: "An occurrence of a natural catastrophe, technological accident, or human-caused event that has resulted in severe property damage, deaths, and or multiple injuries. As used in this Guide, a 'large-scale disaster' is one that exceeds the response capability of the local jurisdiction and requires state, and potentially Federal, involvement. As used in the Stafford Act, a 'major disaster' is 'any natural catastrophe [...] or, regardless of cause, any fire, flood, or explosion, in any part of the United States, which in the determination of the President causes damage of sufficient severity and magnitude to warrant major disaster assistance under [the] Act to supplement the efforts and available resources or states, local governments, and disaster relief organizations in alleviating the damage, loss, hardship, or suffering caused thereby'" (FEMA, 1996, p. 2).

General Adaptation Syndrome (GAS) diathesis-stress model: The theory that people have biological or psychological vulnerabilities (Linebach & Kovacsiss, 2022).

Nongovernmental Organizations (NGO): Nongovernmental organizations are nonprofit entities with an association based on the interests of their members, individuals, or institutions and are not created by the government but may work cooperatively with the government (FEMA, 2006).

Post-Traumatic Stress Disorder (PTSD): "Post-traumatic stress disorder (PTSD) is a mental health condition that's triggered by a terrifying event — either experiencing it or witnessing it. Symptoms may include flashbacks, nightmares, and severe anxiety, as well as uncontrollable thoughts about the event. Most people who go through traumatic events may have temporary difficulty adjusting and coping, but with time and good self-care, they

usually get better. If the symptoms get worse, last for months or even years, and interfere

with your day-to-day functioning, you may have PTSD" (Mayo Clinic, 2021, p. 1).

CHAPTER TWO: LITERATURE REVIEW

Overview

This study explored the impact of disastrous events that might physically and psychologically overwhelm law enforcement personnel. Furthermore, this study aimed to evaluate how significant a law enforcement employee's stress management training is related to preparation, mitigation, response, and recovery from a major disaster. The researcher sought to explore if the trainees felt training standards were sufficient and if the training lacked the proper rigor, was the weakness in the materials, the delivery, or the receptiveness by the officers undertaking training from the Federal Emergency Management Agency (FEMA). Additionally, using Tarde's Theory of Imitation, the researcher attempted to discover if the members of the participating agencies that the researcher interviewed were placing trainers in the position of the superior member or if others may have interfered with training goals and objectives.

The study of disaster and response by responding agencies is critical and is essential when events cause severe community disruption and overwhelm its ability to handle all of the needs within the community (Etkin, 2016). Past academic research forms the foundation for these studies, resulting in a better response because no one can stop natural disasters; therefore, communities need to concentrate on their need to be better prepared (Mann & Williams, 2021). The identification of disaster scenarios, both man-made and natural, is essential and can be evaluated by looking at preparation, mitigation, response, and recovery (Feitelson et al., 2019). These steps require focused, dedicated personnel ready to respond appropriately.

Theoretical or Conceptual Framework

There was a myriad of well-grounded literature sources for the researcher to use to analyze the issue of the effectiveness of training and why it may or may not be appropriately utilized by the officers in the field (Andrews, 2015, Bernard et al., 2008, Huang et al., 2017). The use of qualitative methods is supported in the criminal justice field by Lumsden (2016), who researched the United Kingdom on how officers view research, revealing that officers often view researchers with contempt. The issues exposed by investigation will help other researchers understand how practitioners and academe may explore the problem in the future. Because first responders, including law enforcement officers, are very stressed during disasters, a need for better coping skills has been identified and encouraged (Gonzalez et al., 2021).

Theory to be Considered

The question of how law enforcement officers react in a particular fashion during a disaster is complicated. The researcher used Tarde's Imitation Theory to evaluate this issue to describe why specific officers and organizations handle disasters more effectively. The theory is three-fold, holding that the degree of imitation is related to exposure time to the individual being imitated by the inferior member, the rank of the superior member is vital in the process, and the inferior member replaces old habits or training with new ones (Linebach & Kovacsiss, 2022). Tarde based his theory on the idea that learning was similar to Aristotle's laws of learning, but with a departure when it comes to the association that promotes learning, focusing on the connection between the individual rather than the sensation (Bernard et al., 2019).

Imitation Based on Time with Mentor

Instructional time is always at a premium regarding law enforcement training. Because of the value of the time together and how the individual is exposed, the most must be made of the

time together, including understanding how an instructor's actions influence the learner and vice versa (Muraoka et al., 2019). Muraoka et al. (2019) looked at how subtle movements increased or decreased over exposure time, noting that the instructor and the student became similar in their subtle actions over time. Deshais et al. (2020) have done some recent research with kids on the autism spectrum that suggest that additional persons involved in imitating the instructor, such as another instructor, are beneficial. The idea of more than one instructor is another aspect of this component that might have merit for research in the future. Other research has shown that there may be times when more time does not solve the problem, as in the case of dysarthria—a condition where a person slurs their speech, so this must be considered in light of the General Adaptation Syndrome (GAS) discussed later in this research (Barrett et al., 2020). While Barrett saw situations where no amount of time would result in a change, Benescua et al. (2022) discovered through extensive research that social imitation could improve spontaneous thought, which would then lead to new ideas. The time spent with instructors is therefore critical; the more, the better.

Rank or Superiority of the Instructor in the Training Environment

For the Imitation Theory to be influential, a superior member must be mimicked by an inferior member, meaning salient relationships exist between the two (Giordano, 2020). Researchers have recognized these critical connections in life-impacting events for individuals seeking change (Boman & Mowen, 2018). By developing a clear hierarchy and focusing on life goals, the practitioner can move the subordinate toward the goals of the overall process they are both involved (Gong et al., 2020). The most effective way to develop these relationships is for the connection between the two to be organic or environmental, meaning having a purpose in life, as well as a connection with the mentor or instructor, will increase the likelihood of success

by a measurable amount (Konowitz et al., 2019). Konowitz et al. (2019) also noted that the

number of superiors does not substantially influence the impact of a mentor.

Replacement of Old Habits

Replacing old habits with new can be seen as learning, which researchers break down

into several areas, including motor skills, verbal information, intellectual skills, cognitive

learning, and attitudes (Holton III et al., 2005). Recently Brown et al. (2020) argued that this

process, when applied to inner-city black youth, needed to be reevaluated, focusing on talking

with them instead of at them. Lumsden (2016) echoed this sentiment in police research and

development. All the examples to replace old habits, inspire learning, and move concepts

forward must embrace this third and final piece to be effective.

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Theory in Practice

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The complication is whether the theory can explain why officers may feel training is

insufficient and find themselves in a situation where PTSD or other stress overloads occur. The

researcher believes that a proper response from the law enforcement officer to stress can be

obtained through training if the training is appropriately formatted and relevant to the student

(Russell & Wilson, 2022). In addition to the Imitation Theory, which would help explain the role

of the trainer, other theories support how this might impact an officer who does not have an

effective training program presented to them.

General Adaptation Syndrome

Linebach and Kovacsiss (Linebach & Kovacsiss, 2022) discuss the General Adaptation

Syndrome (GAS) diathesis-stress model, which contends that individuals may have generalized

psychological or biological vulnerabilities to traumatic stress. According to Leung and Shen

(2022), researchers must consider this theory when reviewing the other sources of information

for this research because if a person can be identified by supervision early, it will help with the

treatment of PTSD or other stressful events. Similar to the theory that Tarde put forth on

imitation, the issues with the stress event include "the intensity of the trauma, the duration to

which the person was exposed to the trauma, the extent of the threat of the trauma, and the nature

of the trauma" (Linebach & Kovacsiss, 2022, p. 43). These issues will add to the complexity of

the research. Leaders must recognize the weaknesses of those they are leading and make

appropriate changes, encouraging those who are overwhelmed and ensuring that the mission is

completed by those who may be overwhelmed (Alexander et al., 2019). This laborious process is

part of the complexity of this issue.

Adult Learning Theory (ALT)

Researchers have studied the ideas of how adults learn for many years, and these

researchers understand that adults take in information differently, often based on their own

experiences (Holton III et al., 2005). Since the adult learning theory (ALT) lends itself to both

life-long and self-directed learning, observations by researchers and practitioners allow for

autoethnography or the exploration of lived experiences (Bordonaro, 2020). As the theories are

developed, researchers are connecting various theories (Soule, 2022). This process opens the

door for vital mentoring programs.

Studying how people learn is ancient, dating back to great works like those of Aristotle

three hundred years before the birth of Christ, who argued that learning was a result of

experience (Bernard et al., 2019). Abedini et al. (2021) have recently looked at the topic from the

online learning perspective. Giordano (2020) further explored the topic of social learning in

adults when he advocated for continuing education. This process would be consistent with the

goals of the research in this paper. The systemization of adult training for the purposes of

emergency response that was constantly improving would fit nicely into the belief by Tarde that

the progression of invention was irreversible, thus building up over time and improving (Tosti,

1897). As the theories build on one another and other thinkers enter the realm of academics, the

learning theories and their application should improve. This exploration and expansion of

thought may be best accomplished by all involved through mentors who can dedicate time and

energy to students.

Mentors and Adult Learners.

Researchers have determined that there is a strong connection between the learning done

by adult students and follow-up by mentors (Cheng & Hackworth, 2021). Stephens (2019)

discussed the importance of the mentor having both an informational background and a

motivation to help, as in the case of grandmothers helping children learn. There is also a

movement to adjust how colleges mentor and view educational opportunities for those entering

social work programs, given that more older students are entering these programs (Becker et al.,

2022). In light of significant societal changes brought on by Covid-19, learning at all levels is

being reevaluated to adjust to the social changes, which allows for adaptation and applications

that may not have been viable in the past (Fleming & Saskia, 2020).

Adult Learning in the Private Sector.

Even outside of Emergency Management, in the world of business and production, the

idea that both informal and formal networks can be used by those seeking to educate another has

developed (Abedini et al., 2021). In the private sector, mentoring and adult learning are practical

techniques to improve the quality of work (French & Lozano, 2020). The need for long-term and

personal engagement with those whom the trainers are training has been identified by researchers

and should be embraced by those conducting training (Keenlyside, 2019). Although learning is a

complex issue, researchers have determined that a high level of mentoring helps with the adult

learning cycle (Brzovska et al., 2022).

The Complexity of Adult Learning.

The adult learning umbrella is complex, with parts focusing on interdisciplinary

techniques with real-world applications and endeavors (Boston et al., 2020). Researchers have

identified a gap in the training because of a lack of focus on the correct issues, as opposed to

models developed by Allen et al. (2022), which focus on knowledge and behavioral changes.

Because adult learning is life long, there needs to be a constant evaluation of where the student

or learner stands with an honest evaluation of standards (Chen et al., 2021). Working with these

concepts, the researcher then went on to look at the related literature.

The Imitation Theory, General Adaptation, and Adult Learning

The literature review focused on combining these theories with real-world applications.

As the primary focus, the researcher looked at the literature available and how these issues

connected in the realm of Emergency Management, as well as in the broader sense. Using these

philosophies in conjunction was the foundation of the research. The related literature revealed

the connection between these theories and their application by practitioners in the field of

Emergency Management and beyond.

Related Literature

Although the functions of law enforcement and other emergency management response

organizations have coexisted for decades, it has not been until recently that both have made

efforts to make a better connection during major disasters, allowing these essential groups to

work in unison more effectively (Hendrix, 2021). After the 9/11 attacks, the Federal Government

of the United States of America recognized a need to improve its organization, and the

Department of Homeland Security (DHS) was created by the United States Congress (Bullock et al., 2011). The establishment of the DHS was significant because it moved FEMA under the authority of Homeland Security and prompted more cooperative training (National Training Institute, 2018). Although the 9/11 attack may have been the impetus nationally, the regions where large-scale disasters occur frequently have seen the need based on past experiences, such as hurricanes (Asch et al., 2007). The national Covid response was another test of the national response, and flaws were identified by Hendrix (2021), showing there is still room for improvement. Therefore, the focus of the literature review became an analysis of these various factors by the researcher.

Historical Hurricanes in Context

Hurricane Ivan was the oldest hurricane referenced by those interviewed. Hurricane Ivan was a category five hurricane that impacted the Caribbean and Gulf Coast area in September 2004 (Stewart, 2004). Concerns about evacuation and response were present during Hurricane Ivan. However, these same issues were seen in the response to Hurricane Katrina, demonstrating that needed changes were not being made by trainers (Smith, 2018). This lack of change would be critical to how hurricanes in the future were seen, as in response to Hurricane Katrina several years later.

Hurricane Katrina is the most referenced and foundational source for data on why the Gulf Coast area systems failed. Hague (2016) points out this as a watershed moment, pushing FEMA toward a better communication model and disaster management. Since FEMA—a part of Homeland Security—can be seen by others as a leader in disaster response, their model will be helpful as a measure. Many mistakes made during Hurricane Katrina and other disasters point toward the need for better training or even moving response authority to a local level (Smith T.

C., 2019). With the recognition of issues by the community at large, there can be a discussion about better training.

Critical response training is the first step but connecting the trainers' ideas and concepts with a clear understanding and buy-in with the trainees is necessary to ensure that trainers meet the goals (Burkle Jr., 2019). For example, when Hurricane Florence was studied, various factors were considered by Crowley, such as how close the person was to the coast and how well the housing was constructed (Crowley, 2021). These social considerations and other information can help with planning, training, and recovery. Likewise, Hurricane Harvey resulted in a study on PTSD and personal growth (Shigemoto, 2021). Disasters will continue to occur, so researchers need to continue learning from the experiences.

Recent Hurricanes As Additional Reference

Although the community often sees Hurricane Katrina as a watershed event in the United States, other hurricanes have occurred and have the impacts studied by experts. These include Hurricane Harvey in 2017, where researchers looked at the event's impact on the community and compared the effect with other disasters such as terrorism, veteran PTSD, and wildfires (Shigemoto, 2021). Shigemoto (2021) identified various responses depending on the individual, meaning that reactions may vary, the impact may be different, and the ability to recover is also likely to be different. This observation is consistent with the GAS theory, which points toward individuals having the ability to react to different stimuli differently (Linebach & Kovacsiss, 2022). Therefore, these issues are not new or well-researched, making continued analysis critical. Issues involving hurricanes and response are being evaluated by experts, even to include an evaluation by Andreu et al. (2021) on the topic of landscaping, as well as work by Beerens et al. (2020) on the topic of leading others to preserve wetlands. If communities can focus and come

together on these topics, there is hope, but emergency management leaders must overcome the

disconnect between the general population and planners (Baker et al., 2020).

Past Issues of Being Disconnected

The problem of practical training versus training that fills time is recognized as an issue

by researchers because of the nature of budgets. Adding to this problem is the issue of law

enforcement's isolated nature, which has a strongly protected subculture (Cheong & Ganapathy,

2016). For this reason, some training that might be useful to law enforcement might be

overlooked by those responsible for organizing training (Cohen, 2021). The research exposed a

necessity for a message that conveyed the required changes, and, at times, a paradigm shift to

permit a more effective application of an ideal (Hassan & Jiang, 2021). The importance of the

message is critical, so a functional training curriculum needs to be developed by specialists in the

field working within a fair organizational climate (Brimbal et al., 2020). The climate will dictate

how the message is received.

Communication Policy and Practice

It should be logical that the message being sent out by the trainers is beneficial to those it

was intended for, which often requires repetition and clearly defining terms and ideas (Giebels et

al., 2020). It is not always the case that the message is understood or accepted, meaning that

community members often ignore or underestimate the dangers of pending disasters (Medina,

2015). This paradigm shift in getting the message out and hopefully changing how people react

to the message will require a change in the philosophy of society as a whole toward disasters and

disaster response (Appleby-Arnold et al., 2018). To accomplish this would require the messenger

to improve how this is accomplished, such as using shortened messages with a clear focus

(Everbridge, 2013). Communication of the training is also true regarding how law enforcement

understands short-term messages about pending disasters and how they engage with trainers to

ensure that when the disaster message does arrive, the law enforcement officer is ready to

respond (Benson et al., 2010). There are problems if law enforcement does not adequately

convey the message, so this concern must be evaluated and overcome (Giebels et al., 2020)

This idea of effective communication and messaging is not new to advertisers or others

responsible for providing a message to the larger group and sometimes smaller, special groups

(Coleman & Scott, 2015). However, there has been a previous disconnect between theory and

application between trainers and trainees—the result: experienced officers go back to what they

have done in the past in place of the newer training they have received (Dayan et al., 2019). Even

changing how Human Resource departments handle messaging can fit into the paradigm shift

that may be needed (Garbarski & Kalyal, 2021). Researchers have traced this lack of embracing

the training or philosophy to a lack of trust in the new ideals, so the training needs to change with

how all the materials are presented and received by officers (Cordner, 2016). The literature

shows that training needs to be more than just receiving information but needs to result in a total

change in the process of delivery for the officers so that under stress, the officers make correct

decisions, thereby changing the paradigm (Belur et al., 2022).

History of Training Within the Federal Emergency Management Agency

FEMA and Emergency Management, in general, seem to have a rocky history (Martinet,

2021). Looking at the history of FEMA, there have been many changes over the years ranging

from FEMA holding a cabinet-level position at the White House to many calls for it to be

defunded or disbanded recently by well-known political leaders (Checker, 2017). FEMA has a

history of issues relating to how the agency interacts with the state, county, and local

governments, with many complaints about the process and how ineffective it seems to be carried

out by the agency (Graham et al., 2016). In addition, FEMA has a history of political issues,

including decades of complaints about how the agency handles non-training issues such as buy-

outs of destroyed properties, with allegations made by Nelson and Molloy (2021). Given the

disruptive history of the organization and the complaints from various sources about how it

operates, a researcher can see that there is a need for a change in how this organization handles

itself, including a need for a look at training techniques.

Changing the Paradigm of Emergency Management

Andrews (2015) argued that the daily roles and responsibilities of law enforcement and

other first responders are different than during a disaster. Research has pointed toward a need to

support first responders with training instead of just operating as usual (Castellano & Plionis,

2006). To be effective a plan must rely on solid training as well as effective response because

excellent training will lead to effective response (Johnston et al., 2020). Observers can often find

this need for a change in the paradigm in other areas outside of law enforcement, such as

business continuity planning in the private sector (Hatton et al., 2016).

Research points to a need to change the overall philosophy of how disasters are viewed

and planned for by the community (Medina, 2015). Researchers have discovered that the

community often ignores calls to evacuate, which puts an immense burden on law enforcement

during the preparation and actual event (Bearman et al., 2020). There can be no better starting

point for training than that of law enforcement. The public usually views the police or sheriff's

deputies as prepared, trained, and holding a certain respect level in communities not run by those

ideologically bankrupt (Albrecht, 2019). Those responsible for communications must foresee the

public having such an idea and use this concept as a logical starting point. This model is where

those responsible for the safety of a community can create partnerships with others involved in

the community planning process to improve the overall process of getting the message out to those who need the information (Alpert et al., 2020). One approach could be to target school-aged children because of how practical other training has been in this area (Loeys et al., 2022). Emergency planners must also consider non-government organizations as resources and stakeholders in the process (Koerner & Staller, 2022).

Application in Non-Government Fields

There has been a recognition that even with training, there is a high level of stress involved in response to natural disasters that have to be resolved by the participants, such as Red Cross workers (Beckman, 2015). The constant exposure to victims and their stories eventually takes a toll on the individual (Henderson et al., 2020). The Bible promises that heavy-laden people can receive rest, but this has to be claimed by the believer (Matthew 11:28-30, I Peter 5:7). Trusting that God will help with stress is a claim Christians can make. Programs like those proposed by Davidson et al. (2021) can also help bridge the gaps and move the overall project forward.

Researchers like Calcote (2012) have also reviewed how stress has impacted hazmat workers who deal with cleanup operations and do not work with the victims, discovering that these workers have negative experiences from the work. The large-scale disaster exposes these workers to a hostile environment where destruction occurs (Bernard et al., 2008). Even the sight of destruction can be heartbreaking and cause issues researchers have recognized (Huang et al., 2015). Researchers need to conduct additional studies in the private sector, and then leaders must provide support through training during and after a major disaster to help build a proper mindset in the first responders (O'Neil & Kruger, 2022).

The private sector has seen the need to expand and improve when it comes to disaster response (Anaswara et al., 2020). This includes creating business continuity plans to allow for improvement in how quickly businesses can rebound and become profitable again (Hatton et al., 2016). This progress has not gone unnoticed by FEMA, which has added this kind of training to its materials (National Training Institute, 2018). Third-party supply chains often suffer from a lack of resources because of the disaster, poor coordination of the resources, and decreased efficiency, but the private sector is developing novel techniques to help with these issues (Bozorgi-Amiri et al., 2021). These kinds of mitigation techniques are essential.

Mitigation and Other Effective Techniques

Insurance has been an effective mitigation tool that aids in the recovery process. Blemmer and van der Klaauw (2019) studied the effects of insurance, a public and private partnership, to determine how effective the techniques were in the recovery process. The study revealed that although the government provided insurance, the economically challenged areas of New Orleans still struggled even after fifteen years (Bleemer & van der Klaauw, 2019). This revelation opens up discussion by experts on what might work since the idea of providing financial support was thought by many to be effective. However, the issue of how the government agents spend the money falls back on training and the message delivered (Caballero-Anthony et al., 2021).

Emergency Managers can strengthen the connection between the public and private sectors through training to improve supply chains, which has been done successfully abroad (Dwivedi et al., 2019). Getting critical supplies is always an issue in disasters, so building supply lines using post-disaster data will reduce stress, but it will require insightful and practical training (Noham & Tzur, 2018). This issue reveals the importance of family, then the

community, then government, allowing for support from those who care first and then building

from that point (Fukushige & Okuyama, 2021). The Bible also speaks to this when it says, "A

friend loveth at all times, and a brother is born for adversity" (Proverbs 17:17, KJV, 1611). This

concept is key to moving forward with good training, ensuring a foundation of love and trust

upon which to build.

The General Population's Response

Through their study, Coleman, and Scott (2015) recognized the need to build resilience to

major disasters within the broad community using faith-based initiatives. Qualitative research

has explored economics as it applies to special needs communities and found that supplying

government assistance is not as critical as family and extended family support (Asch et al.,

2007). Although an older study, the study points to a process to provide simple economic needs.

Others have conducted tabletop exercises to measure how the community responds to disasters

(Benson et al., 2010), which builds on this concept. Volunteerism is significant and helps a

community recuperate rapidly by engaging qualified individuals who understand their purpose

(Carlton et al., 2022). Again, the training helped experts see the strengths and weaknesses in a

program to help improve the plan and expand training (Curnin & O'Hara, 2019).

The Population as A Whole.

Huang et al. (2016) conducted a meta-analysis of 38 studies to determine which people

are likely to stay and who are likely to leave during a disaster, which revealed the complexity of

thought when responding to these kinds of threats. Adding to this is how the community

perceives the issue before they leave. In the case of Hurricane Harvey, the threat was not

recognized in time, meaning the evacuation did not happen because people trusted the media and

stayed (Shigemoto, 2021). Both of these examples were important because the law enforcement

community draws from the community as a whole, so if the community is not clear on what to

do and is not trained by anyone to pivot, then law enforcement may not be willing to respond

(Knezek et al., 2021). Although law enforcement may have specific training, the training may

not be enough to overcome other biases, such as personal experiences or a lack of understanding

of the seriousness of the pending disaster (Huang et al., 2017). This response has been the

subject of research for many years. A recent study by Knezek et al. (2022) revealed that around

75 percent of emergency responders were willing to respond to a disaster. This response rate

must be part of the training, staffing, and planning considerations.

There will also need to be an understanding of how adverse conditions might impact the

supply demands that the researchers have evaluated and have determined that during a disaster

does not follow the Pareto principle of 80/20, meaning adjustments will have to be made by the

emergency responders in expectations from the community (Azzaretto et al., 2022).

Understanding the issue of how the community will respond to the disaster stress, how the

community will receive communications, and how the disaster impacts supply line issues will

allow for better decision-making (Medina, 2015). To make it effective, trainers will need to

understand the Imitation Theory, allowing the trainer to identify those in the group that are

hindering training (Ho, 2020). Instructors must also help trainees understand that during a

disaster, people will look to the law enforcement officer as the expert (Crosweller & Tschakert,

2021).

A grasp of the GAS diathesis-stress model will help with the overall issue of training to

be effective because those officers working in the field can identify weaknesses in themselves

and others regarding PTSD and response to the disaster (Arikan, 2021). The weakness or

strength of the individual will impact the ability of a said individual to respond and implement

training as much as the supply lines. Recent studies have indicated that some of the response

issues can be best handled by leadership in agencies by removing those who are not capable at

the academy level through testing (Atherley et al., 2022). Additionally, studies have shown that

proper evaluation can predict many factors that trigger PTSD and other types of stress and

depression (Ahmad et al., 2020). A team from the U.K. recently identified the need to identify

these various issues and address them through expert advisory groups that can consider the

various issues and make sure there are available resources (Aston et al., 2021). These types of

research projects need to continue to fill gaps in the literature and address the issues that will

arise in various areas.

Special Needs and Vulnerable Populations.

The first responders will likely spend more time dealing with special needs and

vulnerable populations because they require extra care (Bandzuh et al., 2022). It is clear from the

data that the different groups are impacted by disasters differently, and income, age, and other

factors can put these groups at risk (Horner et al., 2016). This revelation is critical in the short

term because law enforcement and other emergency management personnel need to know how to

respond. Special planning may also be important because it can help researchers look at the law

enforcement groups and identify needs within those communities—long working hours, multiple

stress events, and time away from family—that require additional research (Elliott et al., 2019).

Special needs consume many resources, but the community's response can be more

effective with proper mitigation, such as planning for chronically ill patients ahead of time

(Avilés Mendoza et al., 2021). First Responders have to be patient and look at past events as well

as current trends to help educate the public as to their need to move on in a disaster (Rowell,

2021). Past studies show a correlation between the exposure levels in the past and the likelihood

that the choice to leave will be embraced by the people living with PTSD, as well as the mental

health outcomes that can be predicted (Lierberman-Cribbin et al., 2017). If first responders

understand some of the issues with disaster response, they can make better mental health

decisions for themselves and support others (Fegert & Lorey, 2022). Practitioners can embrace

evidence-based decisions instead of using techniques from the past, such as choosing their path

(Dayan et al., 2019).

Dealing with Trauma and Stress: The Law Enforcement Officer

Although one mechanism for improving law enforcement response is better plans and

training, research showed that training for law enforcement officers might be going in the wrong

direction (Cordner, 2016). Response to hurricanes and other large-scale disasters seems to be

related to safety perception, how well-equipped and prepared law enforcement officers or

agencies may be, and any associated costs for action (Huang et al., 2017). Adding to this issue is

that officers under stress may lack the skills to deal with the problems and are afraid to seek

mental health treatment (Chamberlain et al., 2015). Bowen et al. (2020) conducted research to

help law enforcement officers deal with aggression, stress, and other mental health issues. These

types of programs are building an effective mental health response.

Law Enforcement Training Effectiveness in Mental Health Response

Training in the law enforcement community has increased in the area of mental health

identification and response, and this training has been effective (Christiansen et al., 2021). This

new attitude and acceptance are essential to disaster response because stress will be so high

during a disaster. In addition, those individuals who appear on the autism spectrum will also

need to be considered by first responders, and research by Bowers-Campbell et al. (2020)

showed there is still room for improvement regarding how law enforcement officers are trained

to handle special needs groups. This process must continue to improve through a better

connection between law enforcement and the community as a whole, as evidenced by training

experiences that have been documented (Arminio et al., 2021). This group continues to be at risk

because of the nature of their jobs, which include constant exposure to traumatic events such as

large-scale disasters (Bickle et al., 2022).

Current Projects In Police Stress Training

Some materials are being developed and used to help officers, and others deal with

trauma. Von Krauskopf and Wyman (2019) have developed a program to help with stress,

PTSD, and other related issues, and these materials are being taught by Wyman, who is currently

a law enforcement officer. The application to disasters is natural as the conditions they address in

training can occur with large or small disasters. In addition, experts across various fields related

to law enforcement have written additional materials on stress and PTSD that have applications

in practice, focusing on the topics relating to PTSD, stress, and mental health (Linebach &

Kovacsiss, 2022). Further research and development of these topics may move the discussion

forward so researchers can develop better solutions in the future.

Responding to More Than One Issue

Media sensationalism and over-simplification create a lack of understanding and response

by the community (Appleby-Arnold et al., 2018). An example is flooding, which can be

associated with hurricanes in many cases. FEMA conducted a study demonstrating that stress is

increased in association with the hurricane, specifically with the likely flooding (Lierberman-

Cribbin et al., 2017). Further instances include increased crime that inevitably occurs during a

major disaster but is often not considered by community members (Barnett et al., 2011). These

multilevel stressors must be analyzed by researchers when discussing how to train law

enforcement officers to be resilient (Lierberman-Cribbin et al., 2017). Researchers can also see this process in other areas that impact the community as a whole, such as communications (Cao et al., 2022).

Because the risk involved in a law enforcement career is becoming more apparent, researchers are conducting studies and developing an understanding of the complexity of the perceived situation by those seeking a job in this field (Morrow et al., 2021). Key researchers are noticing the job's complexity even outside of a high-stress event such as a large-scale disaster (Cross et al., 2020). Research shows documented increases in health issues within the law enforcement community, both physical and mental, and these experts are exploring treatment options with some encouraging results (Davidson et al., 2021). This use of behavioral restructuring fits Tarde's philosophy in that innovative ideas introduced by experts are respected, allowing for change to occur. Others are choosing not to join law enforcement, which may impact the overall analysis of stress and PTSD (Chatterjee et al., 2020).

Law enforcement and other first responders often train within an organization or their discipline (Amelchenko et al., 2020). The training was often lecture-style and did not embrace technology, but this paradigm is changing (Densley et al., 2020). Werth (2011) identified the need for scenario-based training and the use of technology over a decade ago, but this training style is not used effectively by some trainers, either because of a lack of understanding or a lack of skill (Brown & McCracken, 2009). These examples of training are yet another way that stress could be reduced, specifically when trainers put the officers into scenarios where verbal skills are used by the officers (Abramovitz et al., 2019).

Lack of Communications as a Stressor.

In Hurricane Michael*,* a significant stressor for the community and law enforcement was Verizon losing most of its network and not making a quick recovery, causing customers to be unable to communicate with the outside world (FCC, 2019). This massive failure causes the public to panic in this age of instant communications, further stressing the community as a whole, but also the law enforcement officers who have to deal with complaints about the outages, as well as their personal and professional inability to communicate via cellphone (Huang et al., 2017). These straightforward issues can create stress that private companies could eliminate if the businesses impacted have a better backup plan. Unfortunately, because of their lack of a backup plan*,* some law enforcement agencies and officers were without communication until AT&T stepped in and provided loaner phones that operated on the AT&T system (FCC, 2019). These issues create issues for law enforcement in both practical ways and create more murky community relations issues when people perceive discrimination (Houston et al., 2021). An overwhelming of telecommunications messages can make the disaster even harder to police.

The definition of disaster means that the system is overwhelmed (Bullock et al., 2011). This broader view means there needs to be planning to reduce stress, which experts accomplish through training (McKoy, 2010). Makowski (2016) introduced a plan to use a cloud-based system during a disaster that shows promise. This kind of planning may make it possible to reduce the long-term impact of a disaster on a particular area. Training may include advanced systems like virtual reality, taking the training from lecture to interactive (Froeschl et al., 2021). If the practitioners can understand the why of the training, it will help overall; it may reduce stress and help with the response. A good trainer can apply the Imitation Theory, allowing the trainer as the superior member to influence the trainees (Linebach & Kovacsiss, 2022).

 Logistics Planning and Training to Reduce Stress.

Recent research has pointed to high-tech models that responders might use (Froeschl et al., 2021). This kind of out-of-the-box thinking and preparation will likely make the difference in future disaster scenarios, allowing essential supplies to be planned for and delivered (Werth, 2011). Others have conducted similar studies but have recognized limitations because human beings still assign value to calculation experts (Huang et al., 2015). For example, the U.S. military has studied how planning and training can help medics respond to their field duties during a trauma event (Cronin et al., 2020). Likewise, the medical community has engaged in similar studies to test the effectiveness of different protocols for first responders using technology (Greif et al., 2021). The government must learn to tap into all stakeholders so that everyone is involved in planning, mitigation, response, and recovery (Boedingingsih et al., 2019).

Response to Hurricane Katrina revealed how logistics could create issues that exacerbate the disaster (Castellano & Plionis, 2006). Hurricane Harvey revealed how groups might claim prejudice even in a disaster (Houston et al., 2021). Many of the issues seem to have stemmed from leaders in the community and law enforcement doing what they had done in the past or because the decision-makers were stifled by the complexity of the situation and expected outcome given the training levels (Rojek & Smith, 2007). Handling these complicated situations requires thinking about the steps, such as how the elderly will access the PODs (Horner et al., 2016). Complex disasters require out-of-the-box decision-making abilities, which requires better training and stress reduction planning (Azzaretto et al., 2022). Better models have to be developed by researchers and practitioners alike to reduce stress, improve communications on all levels, and make some new kind of choices (Tsai & Wang, 2022)

Outside the Box Training Choices.

One other training tool that researchers have investigated is a sizable multiplayer gaming system that allows for simulations that go beyond tabletop exercises (Richardson, 2004). This type of training has excellent potential for various reasons—the current generation entering the field is skilled with computer games. Werth (2011) authored an article favoring scenario-based training to promote higher-level thinking skills. This technique is cost-effective to train; scenarios can have consistency and not tie up large amounts of resources (Froeschl et al., 2021). This training is not unique to law enforcement, but this concept supports the idea that the time has come for training to be less about the lecture and more about applying theories (Gou, 2015). Trainers can build out this training in various ways, aiming to make the best choices possible. Tabletops and similar engaging training are essential. Bennett et al. (2004) identified the need for active, engaging training many years ago, but it has been slow to develop. The scenario-based and computer-based training are practical tools in disaster planning (Guo et al., 2021). This technology can assist with logistics, as outlined by researchers last year (Fathollahi-Fard et al., 2021). Trainers willing to adapt and learn will be essential in the interviews to follow in Chapter Four.

Ethical Choices and Agency Response.

After Hurricane Katrina, the New Orleans Police Department (NOPD) fell apart, with reports of officers stealing police vehicles to flee, acts of violence, and a general lack of response to the disaster (Sims, 2016). The NOPD has long had a reputation as a corrupt and inept organization, but there was an evident lack of training for disasters on the scale of the hurricane that hit the Big Easy. As a result, poor choices were made, which could be traced by police experts to a lack of being psychologically or physically prepared to operate in an unusual and stressful situation (Bernard et al., 2008). Even recent work by Goldman (2020) discussed the

response by Jewish and non-Jewish groups to Hurricane Katrina. This may be an example of

where the Imitation Theory was in play, but the length of exposure to senior officers of the

agency overrode the trainer's ability to be seen as the superior member, meaning that any of the

participants did not replace old habits. Disaster response and how different groups respond,

ethically and unethically, must continue to be studied, no matter how difficult (Van Brown,

2020).

Impact

The impact of a disaster is measured by how quickly a community can return to a societal

norm, as well as economic impacts and other social and environmental measures (Chou et al.,

2020). Ergun et al. (2010) point to a standard set by Waffle House in recovery. Homeland

Security and FEMA experts often cite this standard to measure a community's current condition

after a disaster. Measuring the impact using a private-sector standard that is present in most

communities is effective but needs more research and understanding by the government

(Ganapati et al., 2022). A community might duplicate that rapid return to the norm if experts put

proper training into place and clearly understand the cascading events that are likely to occur

(Cuartas et al., 2021).

Crime and Drug Abuse as Stressors for Law Enforcement.

Disasters change the pattern of life for the people involved. As discussed above, some

decide whether to leave based on factors other than just the storm. Crime is always a

consideration after a large-scale disaster, which impacts law enforcement because they have the

added responsibility to respond to crimes in a disaster environment (Barnett et al., 2011). Studies

show that substance abuse increases in the community after a disaster (Pesko, 2012). Their added

responsibility means that the officers impacted in several areas of their lives now have to deal

with increased drug-related calls for service. This added stress may further contribute to PTSD,

especially if they suffer from high generalized psychological or biological vulnerability as

defined in the GAS diathesis-stress model (Linebach & Kovacsiss, 2022). The workload for law

enforcement officers will be much higher after a disaster, and the everyday routines by disruptive

service requests for citizens and criminals (Burkle et al., 2019).

Training and Other Factors.

McKoy (2010) explores the concept that training and other factors impact stress

regarding law enforcement officers. This revelation is an essential first step toward looking into

the issue of training more effectively. Brown and McCracken (2009) did some early work

looking at ways to build a bridge between the trainer and the trainee. This bridge is especially

critical for law enforcement training because of the often disconnected nature of training that

officers experience, where officers attend training but may not embrace the ideas or forget the

concepts over time. This disconnect is a significant problem in the law enforcement community

identified by researchers in the literature (Andrews, 2015).

Adult Learning Theory and the Implications on Impact.

Innovation can be a powerful tool and understanding how agencies in a disaster scenario

can harness it is essential in recent studies (Bojovic & Guipponi, 2020). Using appropriate adult

teaching techniques and staying current, agencies can make safety sustainable, thereby protecting

everyone involved (Abas et al., 2022). As discussions continued about formal education and its

impact and usefulness in practice, the researchers' goal remained to make the training effective

and to develop a better, less stressful environment (Shah & Yousafzai, 2021). In addition, the

event's impact can overwhelm all involved in a disaster, which may contribute to additional

issues such as PTSD. The ALT had to be meshed into the discussion to accomplish this goal.

From there, researchers can evaluate how an officer might be overwhelmed.

Being Overwhelmed and Post-Traumatic Stress

Large-scale natural disasters are uncommon in law enforcement because there are few

circumstances where the disaster impacts entire communities simultaneously. However, in

hurricanes, the officers can be both responders and victims, creating a unique set of

circumstances. As early as 2004, just a few years after the 9/11 attacks, the research looked at

PTSD as a factor in police officer stress, training, and how agencies respond to this stress and

identify issues (Plaxton-Hennings, 2004). More recent research has identified the need for

realistic training to deal with anxiety, and stress, thereby helping to eliminate the risk of PTSD

(Elliott et al., 2019). It is promising that the professional community recognizes the connection

between lack of training in law enforcement and PTSD and related stress issues. There are even

programs being developed within the law enforcement community to deal with this issue, such as

the Going Beyond the Call training developed by a police officer in Florida (Von Krauskopf &

Wyman, 2019). Analysis of disasters and how long it takes to identify the risks are ongoing and

have shown that there needs to be a long-term evaluation of disasters and their impact on those

responding (Kamijo et al., 2020).

Studies in PTSD Recovery.

In the bigger picture of PTSD and disasters, research has shown that the size of the

disaster impacts the number of people impacted adversely (Dai, Kaminga et al., 2019). Reaction

to hurricanes by the community has also been undertaken and has revealed that there is a

difference from community to community, sometimes related to issues such as the total number

of events experienced and the intensity of the events experienced by the victim (Brackbill et al.,

2019). Studies on dealing with PTSD continue to evolve, with some research pointing to a need

for something like green space to help those involved recover (Dongying et al., 2021). These

kinds of studies are important to understand how hurricanes impact the greater community from

which society selects officers, but there needs to also be an understanding by researchers and

practitioners of how PTSD impacts law enforcement.

Studies in PTSD in Law Enforcement.

There have been recent advances in the study of PTSD in law enforcement. The studies

have recognized the connection between trauma and the occurrences, but Soomro and Yanos

(2018) added a further complicating issue with a revelation that police officers may think that

acknowledging PTSD is a weakness. There was no discussion in their paper about training and

its influence on PTSD, but the fact that some law enforcement officers see PTSD as a weakness

could create an issue. Others have tried to develop techniques to deal with the stress, such as

Cook et al. (2019), who dealt with the issue in their research with crime scene technicians. Elliot

et al. (2019) explored the issue of PTSD, as well as sleep disorders and related mental health

issues, and discovered that although the issues may be prevalent in officers, they can be

mitigated and overcome. Various factors mesh together to make the topic complex. However, it

does reveal that the theories on the stress response, such as the GAS diathesis-stress model, must

be considered by researchers and trainers alike.

Training to Respond

There are various ways that trainers and leaders in an organization could employ training

to reduce stress and Post-traumatic Stress Disorder. These include improving the training given

to law enforcement to be more realistic, which gives officers a form of stress inoculation.

Another technique in development is a more general one focusing on meditation (Davidson,

2021). Christians have various encouragements in the Bible, such as "These things I have spoken unto you, that in me ye might have peace. In the world ye shall have tribulation: but be of good cheer; I have overcome the world (John 16:33, KJV 1611)." There must be a recognized response, whether the training to deal with the stress is built into disaster response training or stand-alone for general anxiety. Practitioners are training police in the field of drug addiction on how to respond to emergencies, and researchers are finding that better outcomes are being reported by researchers (Carroll et al., 2020).

Simulator training is practical, as evidenced by the work of Arminio et al. (2021), who showed that officers accept simulators as beneficial and a good learning platform. Working with testing models on personality traits is another effective way to deal with issues that may be manageable, so it may be beneficial to look for certain traits through testing to reach law enforcement goals (Atherley et al., 2022). These considerations may make training more effective. Scholars are also researching other training to assist law enforcement officers in dealing with those under stress, but some feel that officers are not in the best position to handle these calls (Wallace, 2020). Law enforcement will continue to be on the front lines, so training needs to be adapted, especially when a natural disaster is part of the reality.

Current Training for Law Enforcement

The current training environment for law enforcement is very piecemeal. What is known through researchers reviewing the literature is that the training seems to follow along the lines outlined in Tarde's Imitation Theory, where there are few visionaries and many imitators (Linebach & Kovacsiss, 2022). For example, the vision of Chief Volmer from California in the early part of the 20th Century, where officers received formal training from academics, was not the trend (Cordner, 2016). What is more likely to be seen is that officers attend training, and then

the officers are expected to train others upon return to their agency. Administrators use this

training philosophy and other techniques, such as online training to reduce costs (Richardson,

2004).

Online Training.

The reliance on online resources removes the expert innovator further, moving from

some interaction in the classroom with instructors to the officers passively watching a video

(Abramovitz et al., 2019). This process means the experts are not getting the information to those

needing it through direct interaction (Brown & McCracken, 2009). Those who need the

information may be unaware of what they are missing, so a strong curriculum must be developed

(Edwards et al., 2021). FEMA has a well-organized program that effectively provides the basics

for an overview of the National system of emergency management (National Training Institute,

2018). This training is fantastic foundational material but seems to be missing a personal

application piece. Craddock and Telesco (2022) have worked to fill this gap in training and

research. There is also an increase in online training for mental health interventions that are

showing some promise (Hacker & Horan, 2019).

Online training results vary, but because of Covid 19 lockdowns, some new data is

available. It would seem that the concepts found in the learning theories can be applied. Creating

a personal connection is of critical importance (Cooperman, 2018). Researchers like Cutri et al.

(2020) revealed that studying online teachers and their ability to pivot for that disaster was

difficult. Given that online training is relatively new and is part of this overall transition post-

Covid 19, researchers will need to review the issues to determine its effectiveness. There are new

programs being offered by FEMA and the University of Utah in the area of Community

Emergency Response Teams, so this is something that researchers could explore in the future

(University of Utah, 2022).

Law Enforcement Training—Mental Health.

There has been a shift across the world in how law enforcement responds to mental

health situations, and there has been a more significant push to deinstitutionalize those with

mental health issues (Herrington & Pope, 2014). The law enforcement community is striving to

improve its response to these needs with training in a variety of areas, including a focus on

juveniles (Brady & Childs, 2022). Brady and Childs (2022) recently reviewed a promising

program developed by the Seminole County Sheriff's Office in Florida. Other studies include

Herrington and Pope's research (2014) in Australia on the critical implications for other mental

health training because this is an example of experts training hand-selected officers who have

bought into the program.

This training has been mirrored in the United States through programs often referred to as

Crisis Intervention Teams, where researchers have discovered mixed results (Kim et al., 2021).

Bakeman et al. (2022) determined that these programs are effective, but researchers need to do

more work on the topic. Rohrer (2021) suggested that co-responders would be a good choice for

law enforcement, but there was no mention of how to make this happen during a natural disaster.

Resources during natural disasters are even less robust than during normal operations (Bonnan-

White et al., 2021).

Law Enforcement Training—Emergency Management.

Training for law enforcement officers covers a variety of topics. Trainers in the law

enforcement community are usually internally selected and are not likely to have an academic

background (Shultz, 2019). Training then may rely on the Imitation Theory's approach if the

trainers are teaching materials introduced to them by others, not something they were necessarily

excited to teach. The issue that arises is how much training the leadership of an organization

provides in emergency response or management. If the trainer mimics the information without

the proper background, this creates issues with quality (Chen et al., 2020). Experts are

developing other models for dealing with mental health issues in the field, such as the R model

discussed by Densley et al. (2020), which showed promise in the research because training

officers to rely on other resources when dealing with the mentally ill was effective. It may be that

this can be adapted to include a response during a disaster, although there would be the issue of

the required support personnel being available.

The training offered by FEMA focuses on the big-picture, not on the individual or the

groups impacted (FEMA, 1996). The organized modules provided online for no cost focus on

how the machine operates, not on the individual. The only program that seems to have any

disaster psychology training is the Community Emergency Response Team training, which

consists of a module on disaster psychology (FEMA, 2021). This issue is a gap that continues

when one looks outside FEMA regarding training in handling stress. One new program

developed by a police officer and an associate focused on PTSD, no matter the cause, seems to

be gaining traction (Von Krauskopf & Wyman, 2019). The limitation of not having a personal

approach, along with constraints on training availability, was the focus of this researcher and is

covered in the coming chapters. The weakness in the training seemed to be that all of the FEMA

materials were broad and generalized. There did not seem to be a program for the impact of

sudden stress events on the individual that addresses the officer or generational differences.

Application of Theory For Training.

The GAS theory recognizes the differences and, when properly applied, may seek to reduce the impact of those events that are sudden, large, and very overwhelming to some individuals (Linebach & Kovacsiss, 2022). The Imitation Theory is also not well recognized by the law enforcement community, although the components are the focus of training, as evidenced by research completed by Atherley et al. (2021) in their comprehensive study on changing Washington State Police Academies from a para-military warrior-style training to a guardian model. The need for long-term exposure of trainees to the trainer has been demonstrated by Fisher et al. (2019) in their research on police agencies that have implemented effective evidence-based systems. The need to understand the theory is critical as the theory ensures that the subjects that are being trained carry out the desires of the trainer when put into a stressful situation (Tosti, 1897). Research has shown that this interactive and realistic training style improves officers' performance in drug enforcement (Abramovitz et al., 2019). The restrictions of current training reveal a need for transformation in a variety of topics.

Field Training or Police Training Models for Training.

Field training for officers is a critical part of initial police training, but there is very little research showing how academy training transfers ideas into field training (Dulin et al., 2020). Since police academies are typically more academic, this is where basic emergency management training will occur. The traditional Field Training Program uses a points-based, quantitative system supplemented with a narrative by the Field Training Officer, whereas the newer Police Training Officer model relies on problem-solving skills and the ALT, allowing the recruit to identify issues in the community (Groppi, 2021). Since both models are framed and shaped by the agency, Emergency Management training and scenarios will be up to the agency to develop.

However, no research shows this is an active part of any agency program. What is relevant in the materials is that the programs are an excellent avenue for the desired associations between the field training officer, seen as the mentor, and the recruit (Groppi, 2021). This concept in action leads to a dialog like that found in the paper by Perkins (2021), which outlines the concepts put forth by Tarde's Imitation Theory as a way to develop self-thinking leaders.

Gaps In the Research

There are still some areas that have not been explored in the literature by researchers. Lumsden (2016) recognized a lack of support from law enforcement regarding trusting and supporting academia in their endeavors, so a qualitative review of this issue may be warranted by researchers in the future. Marks (2015), in his research, acknowledges that some quantitative research has issues with how materials are collected, so qualitative seems to be a better fit for discussions about how natural disasters impact people, such as those in Hurricane Katrina. The relevant point is that numbers may provide some idea of where a particular issue might reside, but qualitative analysis can help move the discussion forward to resolve the issues. The researchers found training and learning research and discussion were prolific throughout the reviewed materials, but a connection between them and this particular research question is missing.

McKoy (2010) began to look at the training issue in the study on stress and first responders, but his thesis did not fully develop the concept of how large-scale disasters impact them. Other researchers had identified a need in the FEMA and training requirements as recently as 2007, when researchers further evaluated the response to Hurricane Katrina and weaknesses in the response identified but did not fully resolve the issue (Rojek & Smith, 2007). Although active violence training leads the way with a scenario-based application, there is nothing

available to help train officers for significant natural disasters, let alone deal with the stress the

officers will experience in the field after the disaster has impacted them personally (Shultz,

2019).

  The gaps in the literature center around connecting stress and training during disasters to

law enforcement officers' belief that they can handle the situations presented based on their

training. Other researchers have explored disaster impact on the community as a whole (Huang

et al., 2016). Further research has looked at the disconnect between academia and practitioners in

law enforcement (Lumsden, 2016). The need for more research in a specific area has become

clear after reviewing the literature (Andrews, 2015).

  An additional gap that warrants discussion is an understanding of the training that

overlaps with other first responders and civilians. The problem centers around how agencies train

their personnel (Cronin et al., 2020). Each agency must meet minimum standards, but those

standards vary based on which state the agency is in and which associations an agency chooses

to associate (Dulin et al., 2020). The piecemeal makeup of various agencies makes this too

complicated to address in this research or this paper. In addition, finite training funds, time

restrictions on when officers can leave the job for training, and competing interests make

addressing this issue complex, and there needs to be an understanding of how innovation can

work (Bojovic & Guipponi, 2020). What is known is that when an agency sends an officer to

FEMA training, it is likely that others will be taking the same training, but beyond this, it is not

well studied, which leaves another gap in the research.

Summary

  There are a variety of needs for additional research that the literature has revealed. The

researcher has identified various gaps by studying the current and relevant initial research

literature that now needs to be explored by researchers. This exploration will help fill gaps in the

research by looking at how officers react to disasters and how this reaction relates to the training

received. Material reviews and further discussions about improving training quality are necessary

to help officers move toward an improved response to disasters. Providing officers who have

experienced a disaster, answered open-ended surveys, one-on-one interviews, and completed

disaster response training may allow for a more in-depth study. Researchers can capture stories

and experiences from those involved, look for common themes, and build on the research

materials discovered. This process will allow the research to move forward.

Law Enforcement officers see themselves fulfilling a calling of God, as written in the

Bible: "For he is the minister of God to thee for good. But if thou do that which is evil, be afraid;

for he beareth not the sword in vain: for he is the minister of God, a revenger to execute wrath

upon him that doeth evil" (Romans 13:4, KJV 1611). Law enforcement officers can best

accomplish this goal if they are suitably equipped. Trainers and leaders in law enforcement

organizations should put biblical concepts into place to achieve this goal (James 1:5). Although

many may not be believers, the ideas are still solid and can be adopted. God can provide

direction as the body of understanding is expanded through research and development,

improving training so officers and the community can benefit.

CHAPTER THREE: METHODS

Overview

The researcher has reviewed the available body of knowledge, allowing for exploring the issues to continue. The next logical step in the process is to fill the gaps in the current research by using a qualitative analysis. This process will move the discussion forward to improve understanding and discover if policymakers at the appropriate levels can take additional measures to make training more effective, thereby giving law enforcement officers more ability to make application of concepts and feel like stress levels are dealt with properly, possibly even reducing the occurrence of PTSD cases. In addition, its action research cycle can help change the paradigms in place today, which should be the goal of research (O'Leary, 2015).

Design

The design of this project was a phenomenological approach, looking into how law enforcement officers react to training by FEMA and how disaster impacted the application of the materials. For this research, a large-scale disaster is

> An occurrence of a natural catastrophe, technological accident, or human-caused event that has resulted in severe property damage, deaths, and/or multiple injuries. As used in this Guide [SLG 101: Guide for All-Hazard Emergency Operations Planning] FEMA, a "large-scale disaster" is one that exceeds the response capability of the local jurisdiction and requires state, and potentially Federal, involvement. As used in the Stafford Act, a "major disaster" is "any natural catastrophe [...] or, regardless of cause, any fire, flood, or explosion, in any part of the United States, which in the determination of the President causes damage of sufficient severity and magnitude to warrant major disaster assistance under [the] Act to supplement the efforts and available resources or states, local

governments, and disaster relief organizations in alleviating the damage, loss, hardship,

or suffering caused thereby" (FEMA, 1996, p. 2).

 According to Glesne (2016), officers fall back on what they are comfortable doing and what

they have done in the past rather than training and programs that scientists and practitioners have

empirically tested. This study examines whether this results from not understanding the model or

training, trust in personal experience, or other matters. Due to the nature of this inquiry, the

study's design will be qualitative.

The academic community often prefers qualitative research regarding real-world

problems because it is flexible and seeks to discover the underlying factors (Blumberg et al.,

2019). Social science research tends to be a bit messy, with many variables (Glesne, 2016).

There is also a desire to discover the how and why, which the researcher can best accomplish

through qualitative measures (Glesne, 2016). Searching the Bible is how biblical truths are

expanded by those seeking truth, so it makes sense that this is an effective technique for other

various research (Matthew 7:7).

Research Question

1. How do law enforcement officers trained for large-scale disaster response feel about the
    adequacy of training?

Setting

The selected location was law enforcement agencies in the Panhandle of Florida, which

had recently experienced significant disasters over the past several decades, including Hurricane

Ivan in 2004, and Hurricane Katrina in 2005, through the Chipola Complex fires in Bay County,

Florida in 2022. The agencies included Escambia County and Bay County Sheriff's Offices. The

focus was broad to get a good cross-section of experiences. Since officers are the organization's

backbone, they were the focus of the research.

Participants

Participants were employees of law enforcement agencies who had indicated that they had received FEMA training. When the leaders at the agencies that were assisting with locating participants at the agencies were given the parameters for participation, it was made clear by the researcher that those who were going to participate needed to meet the above criterion. This was outlined in the email sent by the researcher to the agency contacts. All of these criteria were again confirmed by the researcher before the interviews began with the participants that the leadership and their designated contacts had introduced to the researcher. All steps were overseen and coordinated by command staff members at each agency. After initial approval from the Sheriff of each agency, members of the command staff coordinated with the appropriate members of the agency, who directed the researcher to the subjects who had agreed to participate in the study.

In Florida, Bay County and Escambia County have had significant hurricanes in the past several years and candidates from those agencies meet the criteria for such a study. Santa Rosa County sits between Escambia County, Florida and Bay County, Florida, so personnel from those agencies were included because the Santa Rosa personnel are often assigned to respond to help in other counties when a disaster strikes. This researcher provided appropriate Informed Consent forms before the interviews began. The researcher informed all participants that this was voluntary and confidential. The researcher informed the participants that this was a semi-structured individual interview held in person by the researcher, which will allow for thematic analysis, the best way to describe and compare stories and build a hypothesis (Glesne, 2016). This builds well into the design of the study by the researcher and matches the process outlined by O'Leary (2015) in the foundational text on real world research.

Procedures

The researcher emailed the appropriate contacts at each agency, introducing the study and the goals. Then, the researcher requested permission to proceed. This process kept all parties involved within the scope of the Institutional Review Board (IRB) guidelines and adequately notified. Initial emails were sent to leadership at the agencies once the acceptance materials and authorization to start the process had been obtained by the researcher from the IRB. The emails asked volunteers to consent to an interview covering training, reaction to a disaster, and how the person integrates the two within their mind. The goal was to obtain a minimum of five officers to participate in the qualitative interview. The researcher was able to secure eight interviews with qualified persons. This number was decided on after reviewing guidelines suggesting this was a good rule of thumb for this type of study and is supported by researchers such as Smith in 2019 (Kingstone et al., 2018). Additional interviews were conducted but not used since they did not meet the criterion. Since the researcher obtained saturation through analysis, the researcher did not conduct additional interviews, a philosophy common in the qualitative research field and supported by academics who have studied the topic (Mithuli et al., 2021).

The researcher located eligible participants by working with the command staff at the chosen agencies. The leadership introduced the program and requested volunteers. Although law enforcement officers are often isolationists, the author's history as an officer and personal connections likely aided in the process, putting those being interviewed by the researcher at ease (O'Leary, 2015). The researcher and committee members periodically reviewed this process to determine its effectiveness, and the researcher and Committee Chairman agreed that the process worked well, and that the researcher had collected valid data per the IRB authorization.

Data Collection

Prior to collecting this research data, approval was obtained from the Liberty University Institutional Review Board. The researcher used the qualitative research method to answer how practical disaster training is for law enforcement officers. Qualitative methods were appropriate because there needed to be a better understanding by the scientific community of why the training may or may not be effective and how the stress event—a major disaster—impacts officers in the field. Researchers have identified that officers revert to their prior techniques instead of using evidence-based strategies (Blumberg et al., 2019). The next step in the research process was to understand why officers reverted to their old ways and what impact this has on their ability to handle stress. The officers could best explain this decision-making process by talking with the researcher and providing insight into the event and the deputies' strategies.

Through the strategies of the described methodology, the author preferred a phenomenological study design, with an interview as the data collection method to explore the causes of stress and how officers felt about their ability to react. The interviews provided insight into what may be occurring with officers when connecting the FEMA training and using the information in the field. Collecting data from other sources and techniques provided cursory information, but interviews provided the depth to help understand and move the conversation forward on how officers can reduce stress and PTSD. In addition, the Interpretative Phenomenological Analysis technique allowed officers to relate their lived experiences about the phenomenon of the major disaster—a hurricane—which allowed an understanding of how practical the FEMA training might be to the officer (Peat et al., 2019).

The target population was law enforcement officers who had FEMA training and had also been exposed by their chosen profession to a major disaster. The researcher drew the sample

from Bay County and Escambia County, Florida, Sheriff's Department officers because they were available to the researcher, and both had been involved in large-scale disaster situations in the past several years, specifically hurricane events. Using an Interpretative Phenomenological Analysis technique required a small number of interviews to provide the needed insight (Peat et al., 2019). This plan was for the researcher to repeat the process of interviews until saturation of the common themes was revealed by the data, but this was accomplished early on in the interview process, resulting in a need for only eight interviews.

The researcher compiled the data by relying on in-person interviews. The discussions focused on open-ended questions that the researcher then coded for comparison. The researcher will hold individual interviews as confidential information. Finally, the researcher used an analysis of the coded interviews to complete the dissertation. The researcher l used Quirkos software to conduct the qualitative analysis. This process allowed for the coding and analysis of the transcribed materials.

Interviews

Exploring this topic was best accomplished using interviews of a few officers (Peat et al., 2019). Through interviews, the depth needed was achieved by the researcher. In addition, this researcher interviewed the appropriate number of employees required using open-ended questions to see if important terms and ideas could be identified and coded by the researcher.

Upon receiving the Liberty University IRB approval, the researcher will select participants and conduct interviews. The data collection will consist of in-person interviews. The researcher will electronically record interviews to ensure an accurate audio recording exists of the content. These recordings will be transcribed and coded for use by the researcher, backed up by handwritten notes. Given the study's timeframe, the plan will be to have the participants meet

for a short interview of less than an hour. The researcher will design these to be as

comprehensive as possible. The researcher will ask a series of questions designed to allow

respondents to provide as much information on the topic as they see fit. The proposed questions

are in two sections.

Standardized Open-Ended Interview Questions

Candidate Questions. The candidate was screened and interviewed using the following open-

ended questions:

1) Please introduce yourself as if we just first met.

2) Describe your training experiences as a law enforcement officer; what classes have you

   taken? Has FEMA training been involved? What was your impression of the training?

3) Was your FEMA training online, in person, or a mixture? About how many of the

   courses have you completed?

4) Did the trainer represent themselves to have expertise or experience in the topic area, or

   were they just reading the materials?

5) Were there any students in the classroom that asserted control of the classroom?

6) How did that impact the training and your impression of the training?

7) Describe how this training helped you respond as a professional to a large-scale disaster.

8) Have you been involved in a major disaster? If so, how many? Please explain. The

   researcher will use the FEMA definitions and examples, such as hurricanes, major fires,

   and tornados found in the paper's first section.

9) Describe your experiences during that event: how were you impacted professionally and

   personally?

10) How did the FEMA training prepare you for the disaster response?

11) How do you think the FEMA training prepared you for dealing with the stress during the event?

12) How did it help you with dealing with the stress after the event?

13) Reflecting on the major disaster and your FEMA training, was the training practical?

14) In a disaster, do you feel like you relied on the training you received, or did you choose another course of action?

15) Relate any PTSD or stress-related events that you are comfortable sharing regarding this event; include any training concerns in your answer.

16) Do you have any recommendations for additional training?

17) What type of training would make you feel more confident in your ability to handle major disasters?

Data Analysis

After completing the interviews, the researcher reviewed the materials and had Quirkos transcribe the electronic audio files. The researcher then searched for common themes. These themes, such as phrases or ideas, were coded and organized to allow for analysis. The researcher repeated this process until the data reached its conclusion and obtained saturation. This technique has been used with success by Marks (2015) in the research completed on Hurricane Katrina.

The qualitative analysis process requires developing a coding system from the participants' responses (Marks, 2015). The coding process should be focused enough to answer the questions but not so focused as confusing or complicated for others to use if the person tallying the data is not the researcher (Glesne, 2016). The Quirkos software helped to organize the common themes and develop a coding system. Then, the researcher could use this coding to explore the responses from the participants.

Coding

To explore this question required correct coding to be employed. "Instead of coding to count, qualitative researchers code to discern themes, patterns, and processes; to make comparisons and to build theoretical explanations" (Glesne, 2016, p. 195). Since the goal of the question was to seek patterns, a solid coding format was needed. Creating a codebook was suggested by Glesne (2016), so a process needed to be developed by the researcher. The software assisted in this process, allowing the researcher to organize the materials correctly.

The organization of data was critical to producing a viable product. This process was time-consuming, but God has always promised to make the process work and that He would help (Isaiah 41:10). Once the researcher adequately developed the codebook and coded the responses, issues such as data drift were reduced (Glesne, 2016). In addition, oversight of the process by a committee ensured that bias was avoided (Glesne, 2016). Finally, an additional Reader with expertise in qualitative studies was used to review the process and data.

Analysis

This data exploration required compiling all the data, coding it properly, and then discovering what was revealed by the data that moved the conversation forward. Since the outcome should not be known or presupposed, this part of the process relied on impartial analysis and ethical behavior on the researcher's part (Glesne, 2016). However, if the process was successful, reasonable conclusions can add to the body of knowledge and advance training and policing.

Trustworthiness

No research is worthwhile unless it can demonstrate it can be trusted by those reading the report (Guba & Lincoln, 1982). For this project, the focus was on credibility, dependability,

transferability, and confirmability. These factors ensured that others can use the study. It will

also provide a way to move the conversation forward, seeking more information to make it all

work to improve training and response.

Credibility

The materials in the research need to be accurate to be trusted (Marks, 2015). This will

require careful collection and coding by this researcher, focusing on allowing the participants to

tell their stories about the phenomenon and its impact on the officer. In addition, the researcher

will make every effort to eliminate any bias by carefully listening to and coding the transcripts.

This process will include reviewing all collected data and protecting the integrity of the stories

told by the participants.

Dependability and Confirmability

To ensure the dependability of the responses, the researcher conducted interviews in

person. These interviews allowed for consistency in the questions asked while allowing those

responding to tell their stories, thus revealing common patterns. This process provided reliability

in the reactions and how they were seen because the researcher was the sole interviewer (Glesne,

2016). This technique, along with coding, should be enough to ensure dependability (Glesne,

2016).

Confirmability will be made possible by maintaining good records on the researcher's

part. Although the researcher will keep the names of the individuals confidential, the rest of the

information will be available. This safety measure should ensure that any questionable data can

be verified, and any bias identified quickly (Glesne, 2016). This factor is essential to making the

study acceptable to the academic community.

Transferability

The ability to make application of these results to others should be high for a variety of

reasons. Training from FEMA is standardized. Much of the training is now available online, so

trainers do not interact with students as they would in the classroom environment. This technique

makes transferability high for training. Regarding responses, differences in locations, disaster

severity, and even personality must be recognized by researchers, but similarities, not

differences, should be evaluated and embraced. The small sample size may complicate

transferability.

Ethical Considerations

Since law enforcement officers may reveal what they believe are weaknesses, data

storage and protection will be essential. All data should be stored on a dedicated external hard

drive and deleted after a reasonable period of time. This process will need to be reviewed and

approved. Ensuring that any sensitive or potentially embarrassing information is kept by the

researcher from public view will be of the highest priority and is necessary for academic

integrity. Any parties that assist with transcription or have access to the original data will be

identified and admonished to protect the data. The researcher used pseudonyms to protect the

participants further.

Summary

The literature has allowed the researcher to formulate a plan to fill the gap in the

literature. The Interpretative Phenomenological Analysis method will work most effectively

because it focuses on specific events and how the participants saw those events impacting their

lives (Peat, Rodriguez, & Smith, 2019). It will allow for collecting information related to the

phenomenon of a hurricane and then discussing the impact of training on how deputies manage

stress. This exploration and discovery will help experts improve the conversation in the field,

allowing for action to be taken by practitioners to improve response to disasters. This

improvement will result from identifying whether trainers control the classroom or if the

Imitation Theory is in play. This would mean that the trainers were ineffective because they were

not innovators but merely mimicking those who developed the training materials.

CHAPTER FOUR: RESULTS

Overview

This study aimed to identify if practitioners exposed to significant disasters receive sufficient training and support. To evaluate this issue, the question was asked:

1) How do law enforcement officers trained for large-scale disaster response feel about the adequacy of training?

Interpretative Phenomenological Analysis is a qualitative method that looks at the perception of individual experiences and how different factors impact the individual's perception of events (Demuth & Mey, 2015). The researcher can determine a better understanding by looking at these events and allowing those involved to interpret effectiveness. Furthermore, a qualitative analysis will enable a more robust discussion if it answers these questions.

This analysis was conducted by seeking out volunteers who worked for local law enforcement agencies in the Panhandle of Florida who have had the experience of living through and working during a major disaster. In addition, these participants were trained by various trainers to handle disasters using the FEMA Emergency Management system. Although all participants have been trained, their experiences and level of training varied. These participants were able to relate their stories, thereby allowing for analysis.

Participants

All participants met two basic standards: 1) law enforcement employees working during at least one disaster, and 2) had participated in training from FEMA. Although these were the minimum requirements, reviewers should note that every participant has been through multiple events.

Given the interviewees' complex work requirements, the researcher assigned a pseudonym to each participant to protect the individuals who participated. The names were assigned from a pre-determined list. The individuals gave consent for the researcher to use the information. Still, the assignment and agency specifics will remain confidential as agreed upon by the Liberty University Institutional Review Board.

Adam

Adam has both extensive experience and a substantial amount of FEMA training. Adam has been involved in multiple events that could be classified as major disasters. He was very forthcoming during the interview, providing much insight into how law enforcement officers handle disaster response in the Panhandle of Florida. The information obtained from Adam by this researcher was foundational to looking at the more significant issues.

Boyd

Boyd has considerable experience when it comes to responding to large-scale disasters. Boyd also has a technical background in areas related to both command and logistics. They had some FEMA training but described their training as not as extensive as others in their position. Boyd was quiet during the interview, and their responses to the researcher's questions were matter of fact and to the point. These responses seemed to match their personality.

Charles

Charles was the most outspoken of all of the individuals interviewed. Charles had the most responses to large-scale disasters, including natural and man-made. His training was extensive but was not as extensive as several others. It was a good balance of training and experience. Their personality showed through, and their soft skills were apparent. During the

interviews, this respondent used more analogies than the others and seemed to be a natural

storyteller. This added to the richness of the responses to the questions.

David

David had wide-ranging experiences in response to multiple large-scale events. David's

training was not voluminous but seemed to serve them well, based on the stories that were

related to the researcher. There were numerous valuable accounts pertaining to disaster response

and training effectiveness. This respondent also had training experiences outside traditional

emergency response training that carried over into disaster response. As with all those

interviewed, the stories told were rich in detail and provided insight into various issues that this

researcher addressed.

Eduarda

Eduarda was the youngest and least experienced. She was the only one with less than ten

years of experience. She had also experienced the first disaster prior to training, having been

hired by the Sheriff's Office just a couple of days after Hurricane Michael struck Panama City

and the greater Bay County area. This revelation by Eduarda was useful because they related

how stressful the event had been, not only because of the event but because they did not speak

the FEMA language. Immediately after the hiring, they completed FEMA training and have had

the opportunity to use it in other situations.

Frankie

Frankie was the interviewee in the middle when it came to both experience and training.

Many of the points brought out during the interview related to how the training connects the

dots. Frankie pointed out a disconnect between the leadership, also referred to as the brass, and

the rank-and-file officers. Charles echoed this sentiment. This point will be reviewed later in the discussion.

Georgia

Georgia was the most passionate. Georgia spoke about the need for mental health follow-up support. This was not the first time this had been voiced, with Adam, Boyd, and Charles all identifying the importance of solid support for personnel. This point seemed to be a common theme. Georgia had a moderate amount of training but a compelling story about stress and the impacts of Hurricane Michael.

Henry

Henry had a copious amount of training and certificates and had responded to a variety of disasters. He had also been heavily immersed in disaster responses that have had personal impacts. Although others—Adam, Boyd, and Charles—all related personal experiences when given an opportunity, Henry acknowledged the events but focused on disaster response and how it was handled. He offered the broadest understanding of how the materials could be applied and was a staunch supporter of the FEMA training and trainers.

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Results

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Although there were apparent differences because the participants came from various agencies and had different life experiences, patterns developed through dynamic interviews utilizing semi-structured questions. These patterns will be used to enrich the discussion and propose changes. These shared experiences and observations made by those interviewed related to major disasters in the Panhandle of Florida over the past several decades.

Personal Involvement

This researcher has observed that the panhandle is a centrum for major disasters (U.S. Department of Homeland Security, 2022). Although all of the agencies were not impacted by all the major disasters discussed, overlap in response and shared experiences often occur because the agencies send resources to support one another. All of the participants interviewed reported responding to more than one major disaster. Events personally impacted over 50 percent of the respondents because they worked and lived in the community involved in the disasters. Several reported that responding to disasters such as Hurricane Katrina and just recounting the event caused visible reactions—a trembling voice, increased volume, and tearing up—demonstrating how impactful these events can be to those involved.

Opinion on FEMA Training

The theme that developed in the training quality was overwhelmingly positive. Although only two of the respondents had negative comments about some of the instructors, they were quick to say that overall, the materials were positive at a rate of about 50 percent. The term "death by PowerPoint" was used by these two respondents. This connects to how effective the class materials might be, but most respondents felt that instructors were effective and experts in their field. The theme developed revealed confidence in most trainers as long as they had some experience, not just a train-the-trainer certificate.

One respondent did acknowledge that the instructors were experts in their field, but there was a disconnect in the material. This was caused by a problem with how the experts handled disasters—firefighters fighting remote fires—as opposed to how a law enforcement officer would manage resources that are not singularly focused. This issue will be tough to overcome if

expert instructors are favored over putting someone with no experience without much training in front of a group.

Shortcomings of the FEMA Training

Beyond the issue with the instructors and the concern with firefighters training law enforcement, the subject matter seemed not to be as significant of concern to those interviewed. All but two of the interviewees talked about how the training is top-down, big-picture, and focused on the top positions. This creates a disconnect with those trying to find their place in the overall training. Henry was the only respondent who was totally positive about the training and recognized FEMA's efforts to cover topics well and update training. Georgia offered an additional comment that the mental health portion of training—stress avoidance and recovery— were not sufficient.

FEMA Training Versus Personal Choices and Experiences

When asked about using the training versus choosing their path, the respondents were consistent in their responses. Instead of either FEMA or another path, they all used a common phrase found in law enforcement: they referred to using whatever tool they had in their toolbox, no matter the source of the training or information. This approach is common in law enforcement, so the response was expected. This allows for greater flexibility regarding the more important questions at hand.

Stress and Solutions To Reduce Stress

The idea of adding stress reduction training was proposed during the interviews by the researcher. Interestingly, almost all interviewees made related statements. First, the respondents almost universally agreed that experience was the key. Deployments—operations where key personnel are sent to assist other agencies--were suggested by 50 percent of the group. One

respondent also suggested that scenario-based training needed to be ramped up by eliminating the generic Anytown scenarios and replacing them with real-world materials in the classroom.

Four of the interviewees also suggested a personal connection with the disaster victims. David recounted how he took his team out after work on their time to deliver supplies to areas that were likely not to be able to get to the points of distribution. Adam, Boyd, and Charles related how they had adopted families post-Katrina and took Christmas presents to needy families. These pressure valves seem to be important to those dealing with the stress long-term and are outside of what training and official response can provide.

Resources As a Stress Management Tool

Also revealed through the interviews was the importance of stress relief through support. Adam reported that his agency sent teams to houses of deputies working to remove downed trees. Boyd was part of a cooking team—food is an issue during a disaster, and pre-packaged, often cold, meals only go so far. A homecooked meal is a morale booster. Charles discussed having the support vehicles in place for disaster response to establish command and control. David discussed how they slept in the back seats of police vehicles during their first deployment, but now the various Sheriff's departments have retrofitted recreational vehicles with air conditioning. This is not a training issue but does play in the overall response.

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Themes Developed

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Qualitative research seeks to find commonalities and patterns during interviews, especially in disaster response (Marks, 2015). This process helps researchers and practitioners use past stories to prepare for the future. A variety of themes developed through the Interpretative Phenomenological Analysis (IPA) process. These themes can help move the discussion forward and identify needs for future research.

FEMA Training Is Generally Effective

All of the respondents agreed that most of the training was effective. Two discussed how poor trainers had made the class boring but that the participants cooperated and got through the materials. There was some indication that topics need to be broader, as in the example of the fire service teaching logistics from their standpoint, ignoring that their techniques have little bearing on the urban environment. Nevertheless, it was clear that those interviewed felt the training received was appropriate and handled well.

Training Must Be Supported by Experiences

A common theme that arose in the interviews was a need for field experience over a training class. Charles pointed toward a more extensive mentorship program. The more time in the field and the more experience with major disasters such as hurricanes, the more the respondents talked about the importance of the experience and sharing experiences for stress management. This is a theme that will require additional investigation.

Hurricane Deployment Builds Better Responses

The respondents' observation was that response in the Florida Panhandle has improved. For example, David pointed to the difference between the response to Hurricane Katrina, where he slept in the backseat of his patrol car, and the current conditions where deputies use converted recreational vehicles when off duty. In addition, Boyd discussed how there are now teams that help cut up trees and cook for officers working. This change in operational philosophy helps provide a stable environment for the officers working long shifts to help their community recover. These improvements in response by the Sheriff's offices are a positive change that researchers and practitioners should note, and this theme should be promoted nationally.

Stress Exists, But It is Not Overwhelming With Proper Support

Stress is an ongoing issue in law enforcement because they are exposed to stressful

events daily (Cartwright, Cooper, Donald, Johnson, & Taylor, 2005). The thematic revelation

was that the officers understood it existed, but it was manageable. Charles talked about it being

ever-present and pressing down during a disaster, but the best way to deal with this was to

support one another. Georgia talked about how she was initially overwhelmed during the

response to Hurricane Michael, but that stress was manageable over time. It is a theme that

requires additional investigation.

FEMA Training Needs to Be Supplemented

Revealed through the interviews was a need to expand training in mental health and stress

management. Georgia was very vocal about a need for support after the event. She felt that

outside resources should be found and used if FEMA did not offer the training. Others

interviewed by the researcher echoed this theme. It is clear that may perceive that this component

is not adequately covered in FEMA training and may need to be researched further by others.

<p style="text-align: center;">Summary</p>

The focus of this project is on FEMA-trained law enforcement officers' perceptions of

their ability to apply FEMA training of disaster response to large-scale incidents and on how

effective do law enforcement officers think FEMA disaster training was once they were exposed

to a major disaster. As the interviews progressed, it became clear that this was a complex and

multifaceted issue intertwined with how practitioners see emergency response. All of those

interviewed by the researcher were positive in how they viewed their current training, but none

of them felt that they were done learning. There was a great deal of value placed on experiences,

leadership support, and available resources. All the respondents were very adamant that it be

understood that they expected stress but that it could be handled with peer support. Charles said

it best when he related that the stress was a constant pressure pushing down but that it was

survivable. Only one respondent related serious concerns when they related that there had been a

loss of personnel after Hurricane Michael because of the stress.

CHAPTER 5: IMPLICATIONS, RECOMMENDATIONS, AND CONCLUSIONS

This researcher asked questions designed to determine what FEMA-trained law enforcement officers' perceptions of their ability to apply FEMA training of disaster response to large-scale incidents and how effective do law enforcement officers think FEMA disaster training was once they were exposed to a major disaster. The literature review revealed that officers often revert to other training in the opinion of the researchers. Further, there is a disconnect between how researchers and those outside the field see the best way to accomplish the tasks and what those within the organizations—those performing the duties—think is correct. Finally, the officers reverting to other training may be exacerbated when a major disaster adds stressors not generally encountered by the practitioners. This revelation uncovers a series of implications that can help move this discussion forward.

Implications

Because there has been little research into the impact disasters have on those involved from law enforcement agencies, there is a need to look into this issue. There is also little documented research on whether officers feel the training is effective in helping them deal with disasters that impact large parts of a community or those that may also impact the friends and family of the law enforcement officers. This specialized field of research was discovered in the literature research and undertaken in this paper. The researcher considered examining the impact of training in light of Tarde's Theory of Imitation, the Adult Learning Theory, and the General Adaptation Syndrome Model.

Tarde's Imitation Theory

To understand the implications of how the student integrates training and action in the field, the researcher looked to Tarde for some understanding. The interviews revealed to the

researcher that theory components played into the training in various ways. First, the theory states that the degree of imitation is related to exposure time to the individual being imitated by the inferior member (Linebach & Kovacsiss, 2022). This theory was evidenced in the interviews, with both Adam, Charles, and Henry explicitly mentioning the importance of the instructor in class being essential, but by further expanding the idea into mentoring. Mentoring seems to be the key to the experiences of most of those interviewed. The interviews were essential in revealing this point. Exposure time and quality were both highlighted in the conversations with these interviewees. All interviewees said that they changed how they operated in the field after training, which is the third component of this theory (Linebach & Kovacsiss, 2022).

Adult Learning Theory

The effects of the adult learning theory on practical training were revealed by the interviewees when talking with the more senior members of the sample group. These tenured members could relate to how the training has progressed and give an understanding of how all of these individuals in the group put their training into practice. When the discussion by the researcher turned to the effectiveness of instructors, it became clear that the students in these classes were often seasoned law enforcement individuals, so if they disagreed, they left. This allowed for a conducive training environment for those who saw this not as just another class but as a means to an end. Adult learners are more interactive and look for ways to use their training (Holton III et al., 2005). This concept is an important one to embrace.

General Adaptation Syndrome Model

The GAS model holds that some individuals have a biological or psychological vulnerability when exposed to explosive incidents such as natural disasters (Linebach & Kovacsiss, 2022). Those interviewed described the explosive incidents in great detail. They also

described the stressors not negatively but rather as something that simply existed within the environment that had to be dealt with as they came up. Charles described it as the pressure pushing down consistently. Charles mentioned that stress might not be reduced, but if you have the opportunity to work under a superior who knows what they are doing, it helps.

One element missing in the interviews from those who experienced the stress and then succumbed to the effects of GAS. It is essential to recognize that the interviews tell only part of the story about those who had experienced the training, experienced the disaster, and marshaled on. The Sheriff's Office hired Eduarda because Bay County experienced employees leaving after the hurricane. Georgia mentioned the higher than normal stress levels and need for more support, indicating that future researchers must explore more about this process. Often referred to as survivorship bias, this is the tendency to look at those who have survived (Graham, 2021). The researcher restricted interviews to those who remained with the agencies, not those who left the field. Because there is no mechanism to locate or interview these individuals, this must be considered a limitation for this researcher.

Interview Implications

The interviews unveiled a much messier and more complex set of facts than was imagined in the original design. Because participants were of different ages, had different training, different experience levels, and participated in several large-scale disasters, it became apparent that the simple questions used during the interview process just scratched the surface. Interviewees were forthcoming with story after story about experiences and application of training. Nevertheless, it was clear that the research has a long way to go in the future and that there were limitations to what could be absorbed in a short 30 to 60-minute interview.

Limitations

The research was limited because of geographic restrictions. In addition to a limited

geographical area, the number of participants was limited because law enforcement officers tend

to be reserved when it comes to being involved in research. Time was also a constraint, as the

researcher did not have the time or resources to travel great distances. Despite these limitations,

the researcher identified saturation in the theme development for this research project. Using the

Interpretative Phenomenological Analysis method (IPA) allowed the researcher to develop an

overall understanding of the themes even with fewer interviewees. Additional longitudinal

studies will be needed to substantiate the conclusions.

Ethical Considerations

Ethical considerations were minimal. It is therapeutic for those involved in stressful

situations to retell stories. Each participant was allowed to opt-out, and all were informed of the

purpose of the interview by the researcher before the interviews began, meaning the participants

had full knowledge of the situation. Each signed a consent form acknowledging this fact.

Theme Development

Chapter five will present the implications of this research, recommendations for

stakeholders, and conclusions that the researcher drew. The implications will allow for

deductions to be drawn by the researcher. Furthermore, the researcher will discuss the

information and demonstrate the significance of the research related to the two primary

questions. Finally, this chapter will present the study as it contributes to the body of literature as

presented in chapter two, further expanding the discussion of the topics and helping others see

the needs for future research from the perspective of the practitioners and academic researchers.

It is apparent that the course of the discussion developed through interviews and theme development is correct. However, more discussion and action are needed to move forward in real-world applications in the Panhandle of Florida and possibly beyond on the topic of training, deployment, and stress management. The researcher's themes during the interviews show that FEMA training seems adequate in providing a base for strategic and tactical applications. This conclusion is apparent when the responses were consistent in saying that although stress exists, it is manageable and survivable, even desirable. Overall, the existing training seems adequate to help leaders manage the situation. The more significant suggestion was in the area of mentorship and stress inoculation—participants pointed to needing more mentorship and opportunities to build experiences under a controlled environment in place of more classroom training. Charles was the most adamant that this occurs, likening the experience to locking shields together in a fight and covering the person to either side.

Recommendations

The researcher made various exciting and profound discoveries by listening to those who have had experiences beyond what most could comprehend. These recommendations are based on what the interviewees recommended, and observations made by the researcher as patterns developed in the narratives. This process was well suited to reveal lessons learned from past experiences, allowing for the productive development of ideas for future research.

Stress Management Training

Since the researcher discovered a need for additional training in stress management, especially after an event, the first recommendation is that agencies offer training classes in the broad area of stress management. These programs would benefit every officer to attend, especially those who have experienced stress. As an example, grassroots programs are being

developed and used in the panhandle by Sean Wyman, a police officer who has developed a

program that would be perfect for use in these situations (Von Krauskopf & Wyman, 2019)

Peer-to-Peer Training on Stress

A program like the one presented by Wyman will be essential to move the discussion

forward and see effective changes to the issues at hand. These programs provide a firm

foundation for the student because the student sees the trainer as having similar experiences. This

application would fit nicely with Tarde's Theory of Imitation because the instructor would be

seen as a superior in that they have experiences similar to or equal to what the student will

experience in the field. The instructor will also have the ability to build relationships with the

student, which will often result in expended exposure time through communications after the

class has ended. There will also be an ability to change old habits with new ones, making the

person more resilient. Stress training is a start, but there is a need to be more effective through

mentorship.

Mentorship

A theme that developed from the research was that officers could manage stress. This

would significantly improve the ability of the individual to react to stress if the subordinate were

exposed to the superior through a mentorship program. An additional recommendation is that a

tool be developed to teach this to new officers. This is consistent with the portion of the Imitation

Theory that deals with increasing the exposure time of the inferior member to the superior

member. Formalizing this process could be accomplished through actual application in a

deployment instead of attempting to simulate the process in a classroom environment, making

deployment a training ground as well as a response.

Deployment As a Stress Reducer

The key to reducing stress to a manageable level is to inoculate law enforcement officers through deployments outside of the community so they already have experience managing stress when the event is local. Trainers could manage the curriculum objectives through an organized and semi-formalized mentorship program. Mentorship allows experienced officers to support those who have not been through an event yet. This process is more than a simple class and will require practitioners and leadership to embrace the process. This program will need an effective action plan and extensive agency coordination to be effective.

Mentorship Concept

To make mentorship programs operational will require cooperation between agencies, but the leaders of the agencies are already accomplishing this in the Panhandle of Florida through mutual aid agreements. It is common for agencies to back each other up during major disasters. As Charlie revealed in his interview, the Sheriff of Bay County called and said he was sending resources when Hurricane Sally struck, a repayment in-kind for the response by Escambia County Sheriff's Office when Hurricane Michael struck. Since resources are already communal, it is now just a matter of ensuring that knowledge and experiences are shared.

During interviews, David suggested a formalization of this idea through managing resources. David suggested to the researcher that those in leadership and training assignments could improve by having specific roles, such as managing points of distribution (PODS), assigned to those from outside agencies and allowing the locals to handle day-to-day operations. He further suggested that high-stress assignments, such as body recovery or traffic posts, be rotated with low-stress jobs. All of this could be formalized and handled by the Planning Section Chief or their designee during the disaster and by a training unit at each agency before a disaster.

Although this appears to be complicated, it is as simple as assigning personnel to a rotation and ensuring that senior officers are assigned to mentor and train subordinates. The FEMA model already has a command structure, flow charts, and credentialing. This would be meshing these ideas into the current management structure, a meshing of leadership and management ideas. This process could also reveal if the individual is pre-disposed to GAS, where biological or psychological predispositions to stress might cause issues in response to a disaster.

Meshing of Programs—Development and Validity

The meshing of the stress programs with those of the FEMA management curriculum is a natural proposal. Developing a program within the FEMA structure is lengthy but is possible. It may be that instead of adding a new program that existing programs—such as the mentorship program—need to be bolstered. In addition, the experience of the officers of the panhandle needs to be harnessed, either through moving them into training positions if they are willing and able or by documenting their experiences. Finally, combining the programs with FEMA allows for validation that this is needed training.

Conclusions

Now that the discussion has moved forward and the experts on the topic—those in the thick of the disaster—have spoken, and the materials have been collected, analyzed, and shared, there is a need for action. These plans need to come on a variety of fronts. These stakeholders can now reflect on the themes and take appropriate action. Each group could do this independently, but a combined process would be more beneficial. These stakeholders include local law enforcement, the larger community of emergency responders, agencies that support the local agencies, and the academic community, having the ability to help with organizing research.

FEMA would lead the way by adding the needed components and credentialing into existing programs and protocols.

      The panhandle has enough events to allow for excellent harvesting of narrative inquiry-type studies. This material could be worked into a longitudinal study, ensuring that experiences were accurately recorded and changes such as those outlined by David and Charles in their interviews were recognized. This helps to build more resilient communities. Funding is always a struggle for any research, so having organizations such as FEMA or colleges and universities in the impacted regions help with in-kind research assistance would be perfect.

      It will be essential for agency leaders and those handling the training and policy writing to take action on various levels. This could result in a paradigm shift for a large number of organizations. Norms and ideas that are in place could be better understood and even changed for the better. These understandings would then build more resilient first responders, who could effectively shore up communities.

      If agencies could embrace the idea that there needs to be perpetuity built into the organization, these ideas could take root. Response to disasters can be seen by all involved as both the job at hand and as a training platform to build resilience in law enforcement officers, thereby building the leaders of tomorrow. The disaster cannot be allowed to overwhelm the responders, who are looked to by the community for support and strength. There must be mechanisms in place, such as training, mentoring, and follow-up debriefings, to make the development of experts successful.

      Disasters are going to come as they always have. Since prevention is not always possible, it falls to the heroes of the communities to stand in the gap. This duty can be accomplished if they have the necessary tools and support. This means a better understanding of what is needed

by those outside of law enforcement. The officers appreciate the training they have now, but

what is needed is not more training but better response and support structures, especially after the

event.

References

Abas, A., Ali, M. N., Arifin, K., Cyio, M. b., Khairil, M., Lampe, I.,... Samad, M. A. (2022).

    Sustainable Safety Management: A Safety Competencies Systematic Literature Review.

    Sustainability, 14(11), 1-17. doi:https://doi.org/10.3390/su14116885

Abedini, A., Abedini, B., & Zowghi, D. (2021). Adult learning in online communities of

    practice: A systematic review. *British Journal of Educational Technology, 52*(4), 1663-

    1694. doi:https://doi.org/10.1016/j.jpeds.2021.03.023

Abramovitz, D., Arredondo, J., Artamonova, I., Baker, P., Banuelos, A., Cepeda, J.,... Strathdee,

    S. A. (2019). Interactive Versus Video-Based Training of Police to Communicate Syringe

    Legality to People Who Inject Drugs: The SHIELD Study, Mexico, 2015–2016.

    American Journal of Public Health, 109(6), 921-926.

    doi:https://doi.org/10.2105/AJPH.2019.305030

Ahmad, S. O., Barnidge, E., Jaegers, L. A., Matthieu, M. M., Vaughn, M. G., & Werth, P.

    (2020). Stressed Out: Predictors of Depression Among Jail Officers and Deputies. *The*

    Prison Journal, 100(2), 240-261. doi:https://doi.org/10.1177/0032885519894658

Albrecht, J. F. (2019). Evaluating Police-Community Relations Globally. In J. F. Albrecht,

    Policing and Minority Communities: Contemporary Issues and Global Perspectives (pp.

    3-10). Springer International Publishing.

Alexander, C., Duane, M., Gardner, E., Kearns, K., McShane, L., & Morse, E. (2019).

    Leadership in a crisis. *Journal of Public Affairs Education, 25*(4), 542-557.

    doi:https://doi.org/10.1080/15236803.2019.1606623

Allen, S. J., Riggio, R. E., & Rosch, D. M. (2022). Advancing Leadership Education and

Development: Integrating Adult Learning Theory. *Journal of Management Education,*

46(2), 252–283. doi:https://doi.org/10.1177/10525629211008645

Alpert, G., McLean, K., Rojek, J., & Wolfe, S. (2020). Social Interaction Training to Reduce

Police Use of Force. *The ANNALS of the American Academy of Political and Social*

Science, 687(1), 124-145. doi:https://doi.org/10.1177/0002716219887366

Amelchenko, I. A., Kramskoy, S. I., & Voynov, P. N. (2020). Improvement of law enforcement

officers training to act in emergency situations. *EDP Sciences, 37*(40).

doi:https://doi.org/10.1051/shsconf/20208700040

Anaswara, N., Douglass, K., Dreyer, N., Ghatak-Roy, A., Haris, S., Noll, S., &

Poovathumparambil. (2020). Operation Navajeevan: A Public-Private Partnership Model

for Disaster Relief in Kozhikode, India. *Prehospital and Disaster Medicine, 35*(3), 346-

350. doi:https://doi.org/10.1017/S1049023X20000497

Andreu, M., Hilbert, D. R., Koeser, A. K., Landry, McLean, D. C., & Staudhammer, C. L.

(2021). Urban forest response to Hurricane Irma: The role of landscape characteristics

and sociodemographic contex. *Urban Forestry & Urban Greening*, 61.

Andrews, M. (2015). Operation Windshield and the Simplification of Emergency Management.

Journal of Business Continuity & Emergency Planning, 9(3), 251-261.

Appleby-Arnold, S., Brockdorff, N., Jakovlijev, I., & Zdravković, S. (2018). Applying cultural

values to encourage disaster preparedness: Lessons from a low-hazard country.

International Journal of Disaster Risk Reduction, 37-44. doi:https://doi.org/10.101

Arikan, G. (2021). Stress in COVID-19 Pandemic: Negative and Positive Outcomes, and the

    Possible Role of Preventive Interventions. *Current Approaches in Psychiatry, 13*(1), 135-

    146. doi:https://doi.org/10.18863/pgy.752541

Arminio, J., Comiskey, J., Cunningham, S., & Lockwood, B. (2021). The association between

    participant characteristics and perceptions of the effectiveness of law enforcement tactical

    simulator training. *Police Practice and Research, 22*(6), 1655-1667.

Asch, S., Cordasco, K. M., Eisenman, D. P., Glik, D., & Golden, J. F. (2007). Disaster planning

    and risk communication with vulnerable communities: lessons from Hurricane Katrina.

    American Journal of Public Health, 97(Supp 1), 109-115.

    doi:https://doi.org/10.2105/AJPH.2005

Aston, E., Dougall, N., Enang, I., Heyman, I., Murray, J., & Wooff, A. (2021). Co-creation of

    five key research priorities across law enforcement and public health: A methodological

    example and outcomes. *Journal of Psychiatr and Mental Health Nursing, 28*(1), 3-15.

    doi:https://doi.org/10.1111/jpm.12664

Atherley, L. T., Helfgott, J., & Kosson, D. S. (2022). The Relationship between Personality

    Traits and the Effectiveness of Guardian Law Enforcement Training. *Journal of Forensic

    Psychology Research and Practice*, 1-29.

    doi:https://doi.org/10.1080/24732850.2022.2028392

Atherley, L., Helfgott, J. B., Neidhart, E., & Strah, B. M. (2021). Evaluation of CIT Components

    of Guardian Law Enforcement Training. *Journal of Police and Criminal Psychology, 36*,

    403–422. doi:https://doi.org/10.1007/s11896-020-09405-y

Avilés Mendoza, G., Brown, C., Cabrera-Marquez, J., Finne, J., Francisco, T. L., Kelman, J.,...

    Malave, G. (2021). Observations from the emergency management of dialysis patients

evacuated from the US Virgin Islands to Puerto Rico following hurricane Irma. *BMC Health Services Research, 21*, 1-10. doi:https://doi.org/10.1186/s12913-021-07194-6

Azzaretto, M., Badiali, S., Colombo, D., Della Corte, F., Gamberini, L., Imbriaco, G.,... Mazzoli, C. (2022). Logistic Red Flags in Mass-Casualty Incidents and Disasters: A Problem-Based Approach. *Prehospital and Disaster Medicine, 37*(2), 197-204. doi:https://doi.org/10.1017/S1049023X22000188

Bakeman, R., Broussard, B., Compton, M. T., & Krishan, S. (2022). Using the Theory of Planned Behavior to Understand How Crisis Intervention Team (CIT) Training Facilitates Police Officers' Mental Health Referrals. *Community Mental Health Journal, 58*, 1112–1120. doi:https://doi.org/10.1007/s10597-021-00920-8

Baker, E. J., Lehman, W. P., Lindell, M. K., & Sorensen. (2020). Community Response to Hurricane Threat: Estimates of Warning Issuance Time Distributions. *Weather, Climate and Society, 12*(4), 837–846. doi:https://doi.org/10.1175/WCAS-D-20-0031.1

Bandzuh, J. T., Holmes, T. J., Smith, K., Uejio, C. K., Williams, P. C., & Wong, S. (2022). Assessment of an evacuation shelter program for people with access and functional needs in Monroe County, Florida during Hurricane Irma. *Social Science & Medicine, 306*, 1-9. doi:https://doi.org/10.1016/j.socscimed.2022.115108

Barnett, M., Barnett, T., Kent, J., & Leitner, M. (2011). The Impact of Hurricane Katrina on Reported Crimes in Louisiana: A Spatial and Temporal Analysis. *The Professional Geographer, 63*(2), 244-261. doi:https://doi.org/10.1080/00330124.2010.547156

Barrett, T. S., Borrie, S. A., Flechaus, C., & Lansford, K. L. (2020). When Additional Training Isn't Enough: Further Evidence That Unpredictable Speech Inhibits Adaptation. *Journal*

of Speech, Language, and Hearing Research, 63(6), 1700-1711.

doi:https://doi.org/10.1044/2020_JSLHR-19-00380

Bearman, C., Bremner, P., Hayes, P., & Thomason, M. (2020). Staying on task: A tool to help

state and regional-level emergency management teams. *The Australian Journal of

Emergency Management, 35*(1), 38-44.

Becker, T. D., Leffler, K. A., & McCarthy, L. P. (2022). Individual Characteristics Associated

With Color-Blind Racial Attitudes in Master of Social Work Students. *Journal of Social

Work Education, 58*(3), 472-485. doi:https://doi.org/10.1080/10437797.2020.1762269

Beckman, M. A. (2015). Secondary Traumatic Stress and Posttraumatic Growth: Risk and

Protective Factors among American Red Cross Disaster Responders and Disaster Mental

Health Workers. *University of Minnesota*.

Beerens, J. M., Benscoter, & Romanach, S. S. (2020). Coastal Marsh Bird Habitat Selection and

Responses to Hurricane Sandy. *Wetlands, 40*(4), 799-810.

doi:https://doi.org/10.1007/s13157-019-01230-2

Belur, J., Bentall, C., Glasspoole-Bird, H., & Laufs, J. (2022). What do we know about blended

learning to inform police education? A rapid evidence assessment. *Police Practice and

Research*, 1-21. doi:https://doi.org/10.1080/15614263.2022.2073230

Benescua, B., Berceanua, A. I., Boldasua, R., Carceaa, I., Kebets, V., Nedelceaa, C. I.,...

Tomescua, M. I. (2022). Spontaneous thought and microstate activity modulation by

social imitation. *NeuroImage, 249*, 1-10.

doi:https://doi.org/10.1016/j.neuroimage.2022.118878

Bennett, G., Mansell, I., Mead, D., Moseley, L., & Northway, R. (2004). The learning curve: the

advantages and disadvantages in the use of focus groups as a method of data collection.

Nurse Researcher, 11(4), 79-89.

Benson, P., Callahan, B., Gansneder, B. M., High, E. H., Lovelance, K. A., & Strack, R. W.

(2010). Promoting community preparedness: lessons learned from the implementation of

a chemical disaster tabletop exercise. *Health Promot Pract*, 310-319.

doi:https://doi.org/10.1177/1524839908325063

Bernard, B., Driscoll, R., Kitt, M., Mueller, C., Tak, S., & West, C. (2008). Mental health

outcomes in police personnel after Hurricane Katrina. *Journal of Occupational Environ

Med, 50*(6), 689-695. doi:https://doi.org/10.1097/JOM.0b013e3181638685

Bernard, T. J., Gerould, A. L., & Snipes, J. B. (2019). *Vold's Theoretical Criminology.* Oxford

University Press.

Bickle, K., Campbell, E., Lane, J., Le, M., Martin, K., & Ricciardelli, R. (2022). Police Attitudes

Toward Seeking Professional Mental Health Treatment. *Journal of Police and Criminal

Psychology, 37*(1), 123-131. doi:https://doi.org/10.1007/s11896-021-09467-6

Bleemer, Z., & van der Klaauw, W. (2019). Long-run net distributionary effects of federal

disaster insurance: The case of Hurricane Katrina. *Journal of Urban Economics, 110*, 70-

88. doi:https://doi.org/10.1016/j.jue.2019.01.005

Boedingingsih, W., Suwardi, W., Windandi, A., & Afdol, A. (2019). Appropriate Natural

Disaster Management Policy in Guarantee Accuracy of Target Post Disaster Assistance.

Prizren Social Science Journal, 3(2), 79-87. doi:https://doi.org/10.32936/pssj.v3i2.101

Bojovic, D., & Guipponi, C. (2020). Understanding the dissemination and adoption of

innovations through social network analysis: geospatial solutions for disaster

management in Nepal and Kenya. *Journal of Environmental Planning and Management,*
63(5), 818-841.

Boman, J. H., & Mowen, T. J. (2018). THE ROLE OF TURNING POINTS IN
ESTABLISHING BASELINE DIFFERENCES BETWEEN PEOPLE IN
DEVELOPMENTAL AND LIFE-COURSE CRIMINOLOGY. Criminology, 56: 191-
224. https://doi-org.ezproxy.liberty.edu/10.1111/1745-9125.12167. *Criminology, 56*,
191-224. doi:10.1111/1745-9125.12167

Bonnan-White, J., Mastrangelo, M. A., Mulvihill, R., & Tartaro, C. (2021). Police Officers'
Attitudes Toward Mental Health and Crisis Intervention: Understanding Preparedness to
Respond to Community Members in Crisis. *Journal of Police and Criminal Psychology,*
36, 579–591. doi:https://doi.org/10.1007/s11896-021-09459-6

Bordonaro, K. (2020). Adult learning theories and autoethnography: Informing the practice of
information literacy. *IFLA Journal, 46*(2).
doi:https://doi.org/10.1177/0340035219874046

Boston, C., Cameron, J., Clegg, T., Pauw, D., Preece, J., & Warrick, E. (2020). Tamara Clegg,
Carol Boston, Jennifer Preece, Elizabeth Warrick, Daniel Pauw & Jacqueline Cameron
(2020) Community-driven informal adult environmental learning: Using theory as a lens
to identify steps toward concientización, The Journal of Environmental E. *The Journal of*
Environmental Education, 51(1), 55-71.
doi:https://doi.org/10.1080/00958964.2019.1629380

Bowen, S., Christopher, M., & Witkiewitz, K. (2020). Mindfulness-based resilience training for
aggression, stress and health in law enforcement officers: study protocol for a multisite,

randomized, single-blind clinical feasibility trial. *Trials, 21*(1), 236.

doi:https://doi.org/10.1186/s13063-020-4165-y

Bowers-Campbell, J., Campbell, J. M., Love, A. M., & Railey, K. S. (2020). An Exploration of

Law Enforcement Officers' Training Needs and Interactions with Individuals with

Autism Spectrum Disorder. *Journal of Autism and Developmental Disorders, 50*(1), 101-

117. doi:https://doi.org/10.1007/s10803-019-04227-2

Bozorgi-Amiri, A., Jolai, F., & Shokr, I. (2021). A novel humanitarian and private sector relief

chain network design model for disaster response. *International Journal of Disaster Risk

Reduction, 65*. doi:https://doi.org/10.1016/j.ijdrr.2021.102522

Brackbill, R. M., Gargano, L. M., Lieberman-Cribbin, W., Rasul, R., Schwartz, R. M., & Taioli,

E. (2019). Examining Associations Between Hurricane Sandy Exposure and

Posttraumatic Stress Disorder by Community of Residence. *Journal of Traumatic Stress,

5*(32), 677-687. doi:https://doi.org/10.1002/jts.22445

Brady, C. M., & Childs, K. K. (2022). Implementation and evaluation of a juvenile mental health

training for law enforcement in a medium-sized jurisdiction. *Behavioral Sciences & the

Law*, 1-18. doi:https://doi.org/10.1002/bsl.2558

Brimbal, L., Bradford, B., Jackson, J., Hartwig, M., & Joseph, E. (2020). On the importance of a

procedurally fair organizational climate for openness to change in law enforcement. *Law

and Human Behavior, 44*(5), 394–411. doi:https://doi.org/10.1037/lhb0000422

Brown, A. L., Harrison, L., & Johnson, M. W. (2020). Troubling the Waters: A Critical Essay on

Black Male Role Models and Mentors. *The Urban Review, 52*(3), 415-434.

doi:https://doi.org/10.1007/s11256-019-00538-x

Brown, T. C., & McCracken, M. (2009). Building a bridge of understanding: How barriers to training participation become barriers to training transfer. *Journal of European Industrial Training, 33*(6), 492-512.

Brzovska, E., Elsner, V., Keith, S., Mihailov, M., Oppl, S., Orozel, M.,... Stary, C. (2022). An analysis of social interaction between novice older adults when learning gesture-based skills through simple digital games. *Universal Access in the Information Society, 21*, 639–655. doi:https://doi.org/10.1007/s10209-021-00793-4

Bullock, J. A., Coppola, D. P., & Haddow, G. D. (2011). *Introduction to Emergency Management.* Elsevier.

Burkle Jr., F. M. (2019). Challenges of Global Public Health Emergencies: Development of a Health-Crisis Management Framework. *The Tohoku Journal of Experimental Medicine, 249*(1), 33-41. doi:https://doi.org/10.1620/tjem.249.33

Burkle, F. M., Holmes, L., & Smith, E. C. (2019). Exploring the Physical and Mental Health Challenges Associated with Emergency Service Call-Taking and Dispatching: A Review of the Literature. *Prehospital and Disaster Medicine, 34*(6), 619-624. doi:https://doi.org/10.1017/S1049023X19004990

Caballero-Anthony, M., Chen, C., & Cook, A. D. (2021). Re-imagining the global humanitarian system: Emerging dynamics in the Asia-Pacific. *International Journal of Disaster Risk Reduction, 56*. doi:https://doi.org/10.1016/j.ijdrr.2021.102098

Calcote, J. C. (2012). An Assessment Of Post-Disaster Psychological Stress In Hazardous Waste Operations And Emergency Response (HAZWOPER) Workers. *University of Texas*.

Cao, S., Liu, S., Liu, Y., Xu, D., & Xue, K. (2022). Disaster-Risk Communication, Perceptions and Relocation Decisions Of Rural Residents In A Multi-Disaster Environment: Evidence

From Sichuan. *Habitat International, 127*, 1-15.

doi:https://doi.org/10.1016/j.habitatint.2022.102646

Carlton, S., Johnson, S., Nissen, S., & Wong, J. H. (2022). "A shovel or a shopping cart": lessons

from ten years of disaster response by a student-led volunteer group. *Natural Hazards,*

111(1), 33-50. doi:https://doi.org/10.1007/s11069-021-05043-7

Carroll, J. J., Green, T. C., Killorin, J. C., Martinez, P., Mital, S., Noonan, R. K.,... Wolff, J.

(2020). Knowledge, preparedness, and compassion fatigue among law enforcement

officers who respond to opioid overdose. *Drug and Alcohol Dependence, 217*, 1-8.

doi:https://doi.org/10.1016/j.drugalcdep.2020.108257

Cartwright, S., Cooper, C., Donald, I., Johnson, S., & Taylor, P. (2005). The experience of work-

related stress across occupations. *Journal of Management Psychology, 20*(2), 178–187.

doi:https://doi.org/10.1108/02683940510579803

Castellano, C., & Plionis, E. (2006). Comparative Analysis of Three Crisis Intervention Models

Applied to Law Enforcement First Responders During 9/11 and Hurricane Katrina. *Brief*

Treatment and Crisis Intervention, 6(4), 326-336. doi: https://doi.org/10.1093/b

Chamberlain, J., Shrader, G., & White, A. (2015). Perceptions of Law Enforcement Officers in

Seeking Mental Health Treatment in a Right-to-Work State. *Journal of Police and*

Criminal Psychology, 31(2), 141-154. doi:https://doi.org/10.1007/s11896-015-9175-4

Chatterjee, D., Den Houter, K. M., Liebler,.., & Ryan, A. M. (2020). Policing is not for me:

repelling factors implicated in vocational choice elimination. *Policing and Society*, 1-19.

doi:https://doi.org/10.1080/10439463.2022.2042285

Checker, M. (2017). Stop FEMA Now: Social media, activism and the sacrificed citizen.

Geoforum, 124-133.

Chen, Y., Chung-Cheng, Y., & Yi-Fang, Y. (2020). Higher Academic Qualifications, Professional Training and Operating Performance of Audit Firms. *Sustainability, 12*(3), 1254. doi:https://doi.org/10.3390/su12031254

Chen, Z., Chia, A., & Xiaofang, B. (2021). Promoting innovative learning in training and adult education – a Singapore Story. *Studies in Continuing Education, 43*(2), 196-207. doi:https://doi.org/10.1080/0158037X.2020.1772224

Cheng, T. L., & Hackworth, J. M. (2021). The "Cs" of Mentoring: Using Adult Learning Theory and the Right Mentors to Position Early-Career Investigators for Success. *The Journal of Pediatrics, 238*, 6-8. doi:https://doi.org/10.1016/j.jpeds.2021.03.023

Cheong, H., & Ganapathy, N. (2016). The "thinning" blueline: a Bourdieuian appreciation of police subculture. *International Journal of Comparative and Applied Criminal Justice, 40*(4), 325-342. doi:https://doi.org/10.1080/01924036.2016.1206026

Chou, J., Dong, W., Tu, G., & Xu, Y. (2020). Spatiotemporal distribution of landing tropical cyclones and disaster impact analysis in coastal China during 1990–2016. *Physics and Chemistry of the Earth, 115*, 1-8. doi:https://doi.org/10.1016/j.pce.2019.102830

Christiansen, L., Stewart, C., & Wise, M. (2021). Examining the Effectiveness of Mental Health Education on Law Enforcement: Knowledge and Attitudes. *Journal of Police and Criminal Psychology, 36*, 49-55. doi:https://doi.org/10.1007/s11896-019-09319-4

Cohen, G. (2021). Public Administration Training in Basic Police Academies: A 50-State Comparative Analysis. *The American Review of Public Administration, 51*(5), 345–359. doi:https://doi.org/10.1177/0275074021999872

Coleman, M., & Scott, J. (2015). Reaching the unreached: Building resilience through

    engagement with diverse communities. *The Journal of Business Continuity & Emergency*

    Planning, 9(4), 359-374.

Cook, J., Rosansky, J. A., Rosenberg, H., & Sprague, J. E. (2019). PTSD Symptoms Experienced

    and Coping Tactics Used by Crime Scene Investigators in the United States. *Journal of*

    Forensic Science, 64, 1444-1450. doi:https://doi.org/10.1111/1556-4029.140

Cooperman, L. (2018). Incorporting the Human Factor In Online Instruction, Part 1. In *The Art*

    of Teaching Online (pp. 25-28). Elsevier Ltd.

Cordner, G. (2016). The Unfortunate Demise of Police Education. *Journal of Criminal Justice*

    Education, 27(4), 485-496.

Craddock, T. B., & Telesco, G. (2022). Police Stress and Deleterious Outcomes: Efforts Towards

    Improving Police Mental Health. *Journal of Police and Criminal Psychology, 37*, 173-

    182. doi:https://doi.org/10.1007/s11896-021-09488-1

Cronin, A., Facciolla, C. A., Monti, J., & Muller, K. L. (2020). Impact of Succinct Training on

    Open Cricothyrotomy Performance: A Randomized, Prospective, Observational Study of

    U.S. Army First Responders. *Military Medicine, 185*, 9-10.

Cross, A. D., Ermasova, E., & Ermansova, N. (2020). Perceived Stress and Coping Among Law

    Enforcement Officers: an Empirical Analysis of Patrol Versus Non-patrol Officers in

    Illinois, USA. *J Police Crim Psych, 35*, 48–63. doi:https://doi.org/10.1007/s11896-019-

    09356-z

Crosweller, M., & Tschakert, P. (2021). Disaster management leadership and policy making: a

    critical examination of communitarian and individualistic understandings of resilience

and vulnerability. *Climate Policy, 21*(2), 203-221.

doi:https://doi.org/10.1080/14693062.202

Crowley, J. (2021). Social Vulnerability Factors and Reported Post-Disaster Needs in the

Aftermath of Hurricane Florence. *International Journal of Disaster Risk Science, 12*(1),

13-23. doi:https://doi.org/10.1007/s13753-020-00315-5

Cuartas, J. B., Frazier, T., & Wood, E. (2021). The application of cascading consequences for

emergency management operations. *Natural Hazards, 108*, 2919–2938.

doi:https://doi.org/10.1007/s11069-021-04807-5

Curnin, S., & O'Hara, D. (2019). Nonprofit and public sector interorganizational collaboration in

disaster recovery: Lessons from the field. *Nonprofit Management and Leadership, 30*,

277– 297. doi:https://doi.org/10.1002/nml.21389

Cutri, R. M., Mena, J., & Whiting, E. F. (2020). Faculty readiness for online crisis teaching:

transitioning to online teaching during the COVID-19 pandemic,. *European Journal of*

Teacher Education, 43(4), 523-541. doi:https://doi.org/10.1080/02619768.2020.1815702

Dai, W., Kaminga, A., Pan, X., Wang, Z., & Wu, X. (2019). The Prevalence of Posttraumatic

Stress Disorder Among Survivors After a Typhoon or Hurricane: A Systematic Review

and Meta-Analysis. *Disaster Medicine and Public Health Preparedness, 13*, 1065-1073.

Davidson, R. J. (2021). Mindfulness Training Reduces PTSD Symptoms and Improves Stress-

Related Health Outcomes in Police Officers. *Journal of Police and Criminal Psychology,*

36(1), 72-85.

Davidson, R. J., Francis, A. D., Grupe, D. W., McGehee, C., Mumford, J. A., & Smith, C.

(2021). Mindfulness Training Reduces PTSD Symptoms and Improves Stress-Related

Health Outcomes in Police Officers. *Journal of Police and Criminal Psychology*(36), 72–
85. doi:https://doi.org/10.1007/s11896-019-09351-4

Dayan, M., Jonathan-Zamir, T., Weisburd, D., & Zisso, M. (2019). The Proclivity to Rely on
Professional Experience and Evidence-Based Policing: Findings From a Survey of High-
Ranking Officers in the Israel Police. *Criminal Justice and Behavior, 46*(10), 14.

Demuth, C., & Mey, G. (2015). Qualitative Methodology in Developmental Psychology.
International Encyclopedia of the Social & Behavioral Sciences, 2nd, 668-675.
doi:https://doi.org/10.1016/B978-0-08-097086-8.23156-5

Densley, J., Erikson, G., & Peterson, J. (2020). Evaluation of 'the R-Model' crisis intervention
de-escalation training for law enforcement. *The Police Journal, 93*(4), 271-289.
doi:10.1177/0032258X19864997

Deshais, M. A., Donaldson, J. M., Phillips, C. L., Vollmer, T. R., & Wiskow, K. M. (2020). A
comparison of imitation training using concurrent versus delayed prompting. *Behavior
Analysis: Research and Practice, 20*(3), 132–147.
doi:https://doi.org/10.1037/bar0000174

Dongying, L., Horney, J., Newman, G., Zhang, T., & Zhu, R. (2021). Coping with post-hurricane
mental distress: The role of neighborhood green space. *Social Science & Medicine, 281*.
doi:https://doi.org/10.1016/j.socscimed.2021.114084

Dulin, A., Dulin, L., & Patino, J. (2020). Transferring Police Academy Training to the Street: the
Field Training Experience. *Journal of Police and Criminal Psychology, 25*, 432–442.
doi:https://doi.org/10.1007/s11896-019-09353-2

Dwivedi, Y. K., Kizgin, H., Mahmud, R., Rahman, M. M., Rana, N. P., Shareef, M. A.,...
Yogesh, K. D. (2019). Disaster management in Bangladesh: developing an effective

emergency supply chain network. *Annals of Operations Research, 283*, 1463–1487.

doi:https://doi.org/10.1007/s10479-018-3081-y

Edwards, B. D., Ledford, L. S., Osborne, D. L., & Stickle, B. (2021). Not just a walk in the

woods? Exploring the impact of individual characteristics and changing job roles on

stress among conservation officers. *Police Practice and Research, 22*(1).

Elliott, J. L., Gunning, S., Lal, S., Lee, T., Newton, P. J., & Rai, T. (2019). A systematic review

of the current evidence regarding interventions for anxiety, PTSD, sleepiness and fatigue

in the law enforcement workplace. *Industrial Healty, 57*(6), 655-667.

doi:https://doi.org/10.2486/ind

Ergun, Ö., Heier Stamm, J. L., Keskinocak, P., & Swann, J. L. (2010). Waffle House Restaurants

hurricane response: A case study. *International Journal of Production Economics,

126*(1), 111-120. doi:https://doi.org/10.1016/j.ijpe.2009.08.018

Etkin, D. (2016). *Disaster theory : an interdisciplinary approach to concepts and causes.*

Butterworth Heinemann.

Everbridge. (2013, February 25). *Improve Messages with the 3-3-30 Rule*. Retrieved from

Everbridge: https://www.everbridge.com/blog/improve-messages-with-the-3-3-30-rule/

Fathollahi-Fard, A. M., Hajiaghaei-Keshteli, M., & Nezhadroshan, A. M. (2021). A scenario-

based possibilistic-stochastic programming approach to address resilient humanitarian

logistics considering travel time and resilience levels of facilities. *International Journal

of Systems Science: Operations & Logistics, 8*(4), 321-347.

doi:https://doi.org/10.1080/23302674.2020.1769766

FCC. (2019). *October 2018 Hurricane Michael's Impact on Communications:*. FCC.

Fegert, J. M., & Lorey, K. (2022). Incorporating mental health literacy and trauma-informed law

    enforcement: A participative survey on police officers' attitudes and knowledge

    concerning mental disorders, traumatization, and trauma sensitivity. *Psychological*

    Trauma: Theory, Research, Practice, and Policy, 14(2), 218-228.

    doi:https://doi.org/10.1037/tra0001067

Feitelson, E., Shmueli, D. F., Michal, B. G., Segal, E., & Reichman, A. (2019). Earthquake

    readiness in volatile regions: the case of Israel. Natural Hazards. *Natural Hazards, 98*(2),

    405-423. doi:https://doi.org/10.1007/s11069-019-03698-x

FEMA. (1996, September). *SLG 101: Guide for All-Hazard Emergency Operations Planning*.

    Retrieved from FEMA Glossary of Terms : https://www.fema.gov/pdf/plan/glo.pdf

FEMA. (2006, December 8). *NIMS IMPLEMENTATION FOR NONGOVERNMENTAL*

    ORGANIZATIONS. Retrieved from FEMA:

    https://www.fema.gov/pdf/emergency/nims/ngo_fs.pdf

FEMA. (2020). *Standford Act*. Retrieved from FEMA: https://www.fema.gov/disasters/stafford-

    act

FEMA. (2021, April 12). *Community Emergency Response Team*. Retrieved from Ready.gov:

    https://www.ready.gov/cert

Fisher, R. P., Molinaro, P. F., Mosser, A. E., & Satin, G. E. (2019). Train-the-trainer:

    Methodology to learn the cognitive interview. *Journal of Investigative Psychology and*

    Offender Profiling, 16, 32-43. doi:https://doi.org/10.1002/jip.1518

Fleming, T., & Saskia, E. (2020). Transformative dimensions of lifelong learning: Mezirow,

    Rorty and COVID-19. *International Review of Education, 66*(5-6), 657-672.

    doi:https://doi.org/10.1007/s11159-020-09859-6

French, P., & Lozano, L. (2020). Perspectives in HRD—Mentoring as a collaborative learning

process to improve undergraduate HRD student learning. *New Horizons in Adult

Education and Human Resource Development, 32*, 70-74.

doi:https://doi.org/10.1002/nha3.20297

Froeschl, M., Goellner, J., Kaufmann, H., Mossel, A., Peer, A., & Schoenauer, C. (2021).

Immersive training of first responder squad leaders in untethered virtual reality. *Virtual

Reality, 25*, 745-759. doi:https://doi.org/10.1007/s10055-020-00487-x

Fukushige, M., & Okuyama, N. (2021). Limited Prosocial Response: Post-Disaster Charitable

Behavior of Public Sector Workers. *Kyklos, 74*, 77-102.

doi:https://doi.org/10.1111/kykl.12252.

Ganapati, N. E., Pathak, A., & Zhang, L. (2022). Understanding Multisector Stakeholder Value

Dynamics in Hurricane Michael: Toward Collaborative Decision-Making in Disaster

Contexts. *National Hazards Review, 21*(3), 1-17.

Garbarski, M. K., & Kalyal, H. (2021). "A Change Would Do You Good": How HR practices

can promote change-championing behaviour in police organizations. *Canadian Journal

of Administrative Sciences, 38*(2), 162-176. doi:https://doi.org/10.1002/cjas.1592

Giebels, E., Gutteling, J. M., & Kievik, M. (2020). The key to risk communication success. The

longitudinal effect of risk message repetition on actual self-protective behavior of

primary school children. *Journal of Risk Research, 23*(12), 1525-1540.

doi:https://doi.org/10.1080/13669877.2020.1738527

Giebels, E., Oostinga, M. S., & Taylor, P. J. (2020). Communication Error Management in Law

Enforcement Interactions: A Sender's Perspective. *Criminal Justice and Behavior, 47*(1),

39-60. doi:https://doi.org/10.1177/0093854819870856

Giordano, P. C. (2020). Continuing education: Toward a life-course perspective on social

learning. *Criminology, 58*(2), 199-225. doi:https://doi.org/10.1111/1745-9125.12244

Glesne, C. (2016). *Becoming Qualtitative Researchers-An Introduction* (5th ed.). Boston:

Pearson.

Goldman, K. (2020). Lessons of Hurricane Katrina for American Jews, 2020 Edition. *Jewish

Social Studies, 26*(1), 181-191. doi:https://doi.org/10.2979/jewisocistud.26.1.14

Gong, Z., Hou, W., VanSwol, L. M., & Zhang, N. (2020). Relationship between protégés' self-

concordance and life purpose: The moderating role of mentor feedback environment.

Nursing Open, 18(5), 1616–1622. doi:https://doi.org/10.1002/nop2.545

Gonzalez, A., Machkin, D., Mahaffey, B. L., Rosen, J., Schwartz, R. M., & Taioli, E. (2021).

The disaster worker resiliency training program: a randomized clinical trial. *Int Arch

Occup Environ Health, 94*(1), 9-21. doi:https://doi.org/10.1007/s00420-020-01552-3.

Gou, A. (2015). Teachers College researchers study how students learn with data from virtual

reality education tool Teachers College study finds virtual reality education tools are

effective for student learning. *University Wire*.

Graham, F. (2021). Daily briefing: Mentors, beware survivorship bias. *Nature, 598*, 373-374.

Graham, J. D., Sadiq, A., & Tharp, K. (2016). FEMA versus local governments: influence and

reliance in disaster preparedness. *Natural Hazards, 82*(1), 123-138.

doi:https://doi.org/10.1007/s11069-016-2183-6

Greif, Huwendiek, S., Nabecker, Theodorou, M., & Kasper, N. (2021). Out-of-hospital cardiac

arrest: comparing organised groups to individual first responders. *European Journal of

Anaesthesiology, 38*(10), 1096–1104. doi:https://doi.org/10.1097/EJA.0000000

Groppi, M. (2021). Recruit conservation warden field training: A qualitative analysis of the San

      Jose Police Department Field Training Model applied to natural resource law

      enforcement. *International Journal of Police Science & Management, 23*(3), 253–264.

      doi:https://doi.org/10.1177/14613557211016491

Guba, E. G., & Lincoln, Y. S. (1982). Epistemological and Methodological Bases of Naturalistic

      Inquiry. *Educational Communication and Technology, 30*(4), 233-252.

Guo, C., Liu, T., & Yan, Z. (2021). Application of the tunnel fire scenario dynamic

      reconstruction based on Intelligent Disaster Prevention Platform in Shanghai. *IOP*

      Conference Series.Earth and Environmental Science, 861(7), 1-6.

      doi:https://doi.org/10.1088/1755-131

Hacker, R. L., & Horan, J. J. (2019). Policing people with mental illness: experimental

      evaluation of online training to de-escalate mental health crises. *Journal of Experimental*

      Criminology, 15(4). doi:https://doi.org/10.1007/s11292-019-09380-3

Hague, S. (2016). *Federal Emergency Management Agency's Leadership Behaviors in*

      Collaboration with the Nonprofit Agencies. Phoenix: Grand Canyon University.

Hassan, S., & Jiang, Z. (2021). Facilitating Learning to Improve Performance of Law

      Enforcement Workgroups: The Role of Inclusive Leadership Behavior. *International*

      Public Management Journal, 24(1), 106-130.

      doi:https://doi.org/10.1080/10967494.2019.1680465

Hatton, T., Grimshaw, E., Vargo, J., & Seville, E. (2016). Lessons From Disaster: Creating a

      Business Continuity Plan That Really Works. *Journal of Business Continuity &*

      Emergency Planning, 10(1), 84-92.

Henderson, J., Lawn, S., Redpath, P., Roberts, L., Venning, A., & Waddell, E. (2020). "Why do
you stay?": The lived-experience of partners of Australian veterans and first responders
with Posttraumatic Stress Disorder. *Health Social Care Community In the Community*,
1734-1742.

Hendrix, L. (2021). Lessons From Disaster: Improving Emergency Response Through Greater
Coordination of Federal, State, And Local Response Efforts. *Public Contract Law
Journal., 51*(1), 69-88.

Herrington, V., & Pope, R. (2014). The impact of police training in mental health: an example
from Australia. *Policing and Society, 24*(5), 501-522.
doi:https://doi.org/10.1080/10439463.2013.784287

Ho, K. L. (2020). Who has the power? A reflection on teaching drama improvisation with young
children. *Journal of Early Childhood Research, 18*(1), 73-83.
doi:https://doi.org/10.1177/1476718X19888716

Holton III, E. F., Knowles, M. S., & Swanson, R. A. (2005). *The Adult Learner.* Elsevier.

Horner, M., Kocatepe, A., Marcelin, J., & Ozguven, E. (2016). How does accessibility to post-
disaster relief compare between the aging and the general population? A spatial network
optimization analysis of hurricane relief facility locations. *International Journal of
Disaster Risk Reduction, 15*, 61-72. doi: https://doi.org/10.1016/j.ijdrr.2015.12.006

Houston, J. B., Okker-Edging, K., Shin, H., Spialek, M. L., & Suzuki, V. P. (2021). Individual
disaster communication in the Latinx community after Hurricane Harvey: The role of
disaster exposure, perceived discrimination stress, and social trust. *Communication
Monographs, 88*(3). doi:https://doi.org/10.1080/03637751.2020.1851038

Huang, K., Jiang, Y., Yuan, Y., & Zhao, L. (2015). Modeling multiple humanitarian objectives
    in emergency response to large-scale disasters. *Transportation Research Part E:
    Logistics and Transportation Review, 75*, 1-17. doi:https://doi.org/10.1016/j.tre.2014.

Huang, S., Lindell, M., & Prater, C. (2016). Who Leaves and Who Stays? A Review and
    Statistical Meta-Analysis of Hurricane Evacuation Studies. Environment and Behavior.
    Environment and Behavior, 48(8), 991-1029.
    doi:https://doi.org/10.1177/0013916515578485

Huang, S., Lindell, M., Samuelson, C., Wei, H., & Wu, H. (2017). Perceptions, behavioral
    expectations, and implementation timing for response actions in a hurricane emergency.
    Natural Hazards, 88(1), 533-558. doi:https://doi.org/10.1007/s11069-017-2877-4

Janssens, K. M., van der Velden, P. G., & Taris, R. (2018). Resilience Among Police Officers: a
    Critical Systematic Review of Used Concepts, Measures, and Predictive Values of
    Resilience. *Journal of Police and Criminal Psychology*, 24-40.
    doi:https://doi.org/10.1007/s11896-018-9298-5

Johnston, K. A., Ryan, B., & Taylor, M. (2020). The missing link in emergency management:
    Evaluating community engagement. *The Australian Journal of Emergency Management,
    35*(1), 45–52. doi:https://doi.org/10.3316/informit.9

Kamijo, T., Nomiyama, T., Shimazu, A., & Tsukahara, T. (2020). Risk Factors for Duty-Related
    Posttraumatic Stress Disorder among Police Officers in the Mt. Ontake Eruption
    Disaster-Support Task Force. *International Journal of Environ Res Public Health, 17*(9),
    1-10. doi:https://doi.org/10.3390/ijerph17093134

Keenlyside, E. G. (2019). Critically Engaging Volunteer Guides: A Study of Adult Learning in
    an Art Museum. *Canadian Journal for the Study of Adult Education, 31*(2), 1-16.

Kim, B., Kruis, N. E., & Seo, C. (2021). A Meta-Analysis of Police Response Models for

    Handling People With Mental Illnesses: Cross-Country Evidence on the Effectiveness.

    International Criminal Justice Review, 31(2), 182-202.

Kingstone, T., Saunders, B., Sim, J., & Waterfield, J. (2018). Can sample size in qualitative

    research be determined a priori? *International Journal of Social Research Methodology,*

    21(5), 619-634. doi:https://doi.org/10.1080/13645579.2018.1454643

Knezek, E., Lee, J., & Vu, T. (2022). Emergency responder willingness to respond during

    disasters: A literature review. *Journal of Contingencies and Crisis Management*, 71-81.

    doi:https://doi.org/10.1111/1468-5973.12364

Knezek, E., Vu, V., & Lee, J. (2021). A study of emergency medical service personnel and law

    enforcement official willingness to respond to disaster. *Crisis Public Policy, 12*, 393-417.

    doi:https://doi.org/10.1002/rhc3.12212

Koerner, S., & Staller, M. S. (2022). Towards reflexivity in police practice and research. *Legal*

    and Criminological Psychology, 27, 177– 181. doi:https://doi.org/10.1111/lcrp.12207

Konowitz, L., Liang, B., Lund, T. J., Mousseau, A. D., & White, A. E. (2019). Quality over

    Quantity?: Mentoring relationships and purpose development among college students.

    Psychology in thel Schools, 56, 1472– 1481. doi:https://doi.org/10.1002/pits.22284

Leung, T. Y., & Shen, Q. (2022). Implementing a post-traumatic stress disorder screening for

    first responders in rural area. *Public Health Nursing, 39*, 788– 796.

    doi:https://doi.org/10.1111/phn.13058

Lierberman-Cribbin, W., Liu, B., Schneider, S., Schwartz, R., & Taioli, E. (2017). Self-Reported

    and FEMA Flood Exposure Assessment after Hurricane Sandy: Association with Mental

    Health Outcomes. *PLoS One, 12*(1), e0170965. doi:https://doi.org/10.1371

Linebach, J. A., & Kovacsiss, L. M. (2022). *Psychology in the Justice System* (2nd ed.). Verisega

    Books.

Loeys, T., Volkaert, B., & Wante, L. (2022). The Evaluation of Boost Camp: A Universal

    School-Based Prevention Program Targeting Adolescent Emotion Regulation Skill.

    School Mental Health(14), 440-453. doi:https://doi.org/10.1007/s12310-021-09478-y

Lumsden, K. (2016). Police officer and civilian staff receptivity to research and Evidence-Based

    Policing in the U.K.: providing a contextual understanding through qualitative interviews.

    Policing, 11(2), 157-167. doi:https://doi.org/10.1177/0038038516664684

Makowski, D. (2016). Best Practices for Implementing, Testing and Using a Cloud-based

    Communication System in a Disaster Situation. *Journal of Business Continuity &*

    Emergency Planning, 9(4), 338-345.

Mann, J. P., & Williams, B. D. (2021). Policing in the Eye of the Storm. *Journal of Police and*

    Criminal Psychology(36), 183-192. doi:https://doi.org/10.1007/s11896-020-09394-y

Marks, L. D. (2015). A Pragmatic, Step-by-Step Guide for Qualitative Methods: Capturing the

    Disaster and Long-Term Recovery Stories of Katrina and Rita. *Current Psychology,*

    34(3), 494-505. doi:https://doi.org/10.1007/s12144-015-9342-x

Martinet, M. (2021). Spinning straw into gold: The fairy tale of disaster cost recovery. *Journal of*

    Business Continuity & Emergency Planning, 15(1), 78-86.

Mayo Clinic. (2021). *Post-traumatic stress disorder (PTSD)*. Retrieved from The Mayo Clinic:

    https://www.mayoclinic.org/diseases-conditions/post-traumatic-stress-

    disorder/symptoms-causes/syc-20355967

McKoy, K. D. (2010). *The Impact of Stress On First Responders: A Phenomenological Study.*

    Capella University.

Medina, A. (2015). Promoting a Culture of Disaster Preparedness. *Journal of Business Continuity & Emergency Planning, 9*(3), 281-290.

Mithuli, S. A., Ruffin, F., & Sing, N. (2021). Define, Explain, Justify, Apply' (DEJA): An analytic tool for guiding qualitative research sample size. *International Journal of Social Research Methodology*, 1-13. doi:https://doi.org/10.1080/13645579.2021.1941646

Morrow, W. J., Shjarback, J. A., & Vickovic, S. G. (2021). Motivation to enter the police profession in the post-Ferguson era: an exploratory analysis of procedural justice. *Criminal Justice Studies, 34*(2), 135-155. doi:https://doi.org/10.1080/1478601X.2020.1802591

Muraoka, Y., Okazaki, S., & Osu, R. (2019). Teacher-learner interaction quantifies scaffolding behaviour in imitation learning. *Scientific Reports, 9*(1). doi:https://doi.org/10.1038/s41598-019-44049-x.

National Training Institute. (2018). *National Training Institute*. Retrieved from Federal Emergency Management Agency: https://training.fema.gov/

Nelson, K. S., & Molloy, M. (2021). Differential disadvantages in the distribution of federal aid across three decades of voluntary buyouts in the United States. *Global Environmental Change*(68), 1-13. doi:https://doi.org/10.1016/j.gloenvcha.2021.102278

Noham, R., & Tzur, M. (2018). Designing humanitarian supply chains by incorporating actual post-disaster decisions. *European Journal of Operational Research, 265*(3), 1064-1077. doi:https://doi.org/10.1016/j.ejor.2017.08.042

O'Leary, Z. (2015). *Researching Real-World Problems*. Thousand Oaks: Sage.

O'Neil, & Kruger, L. (2022). Mindset as a resilience resource and perceived wellness of first

    responders in a South African context. *Journal of Disaster Risk Studies, 14*(1), 1-18.

    doi:https://doi.org/10.4102/jamba.v14i1.1312

Peat, G., Rodriguez, A., & Smith, J. (2019). Interpretive phenomenological analysis applied to

    healthcare research. *Evidence Based Nursing, 22*(1), 7-9.

Perkins, M. Y. (2021). Beyond the building: Unleashing leadership potential in the graduate

    classroom. *Teaching Theology and Religion, 24*(93), 93-106.

    doi:https://doi.org/10.1111/teth.12586

Pesko, M. F. (2012). *The Effects of National Disasters on Stress and Substance Use in the United*

    States. Chicago: University of Illinois.

Plaxton-Hennings, C. (2004). Law Enforcement Organizational Behavior and the Occurrence of

    Post-Traumatic Stress the Occurrence of Post-Traumatic Stress Following a Critical

    Incident. *Journal of Police and Criminal Psychology, 19*(2), 53-63.

Richardson, T. J. (2004). *First Responder Weapons of Mass Destruction Training Using*

    Massively Multiplayer Online Gaming. Monterey: Naval Post Graduate School.

Rohrer, A. J. (2021). Law Enforcement and Persons with Mental Illness: Responding

    Responsibly. *Journal of Police and Criminal Psychology, 36*, 342–349.

    doi:https://doi.org/10.1007/s11896-021-09441-2

Rojek, J., & Smith, M. R. (2007). Law Enforcement Lessons Learned from Hurricane Katrina.

    Review of Policy Research, 24(6), 289-608.

Rowell, K. (2021). A New Lens on Disaster Prevention, Response, and Recovery. *Water*

    Resources Impact., 23(5)., 23(5), 38-39.

Russell, E., & Wilson, B. (2022). Training, Tools, and Resources to Support Emergency

      Decision Making By Park Rangers. *Journal of Homeland Security Education, 13*(1), 1-

      20.

Shah, T., & Yousafzai, M. T. (2021). Developing Entrepreneurial Learning Curricula From A

      CEO's Perspective. *City University Research Journal, 11*(1), 20-35. Retrieved from

      www.proquest.com%2Fscholarly-journals%2Fdeveloping-entrepreneurial-learning-

      curricula%2Fdocview%2F2542755731%2Fse-2%3Faccountid%3D12085

Shigemoto, Y. (2021). Association between trajectories of personal growth initiative and post-

      traumatic stress after Hurricane Harvey: A latent growth mixture modeling approach.

      Stress and Health, 37(2), 285-296. doi: https://doi-

      org.ezproxy.liberty.edu/10.1002/smi.2995

Shultz, J. F. (2019). Evaluating critical thinking: The missing link in active shooter response

      training. *Police One.Com*, 1-5.

Sims, B. (2016). The Day After the Hurricane. *Social Studies of Science, 37*(1), 111-118.

      doi:https://doi.org/10.1177/0306312706069432

Smith, J. L. (2018). *Preparedness of First Responders in Gwinnett County, Georgia: Barriers to

      Preparedness and the Impact of Cognitive Biases.* Jacksonville State University.

Smith, T. C. (2019). The Case for Fema Adopting A Localized Advance Contracting Strategy:

      Addressing Major Challenges And Issues That Hindered Fema's 2017 Hurricane

      Response And Recovery Efforts. *Public Contract Law Journal, 49*(1), 193–215.

Soomro, S., & Yanos, P. T. (2018). Predictors of Mental Health Stigma among Police Officers:

      the Role of Trauma and PTSD. *Journal of Police and Criminal Psychology*, 1-9.

      doi:https://doi.org/10.1007/s11896-018-9285-x

Soule, R. (2022). Connecting Adult Learning and Knowledge Management (Knowledge

   Management and Organizational Learning. *The Learning Organization, 29*(4), 415-417.

   doi:https://doi.org/10.1108/TLO-05-2022-283

Stephens, M. L. (2019). African American Grandmothers as Caregivers: Formal and Informal

   Learning and the Benefits to the Children in their Care. *The Journal of Negro Education,*

   88(4), 429-442.

Stewart, S. R. (2004). *Tropical Cyclone Report Hurricane Ivan 2-24 September 2004.* National

   Hurricane Center.

The GIHRE Project. (2016). *Group Interaction in High Risk Environments.* (T. M. Childress, &

   R. Dietrich, Eds.) New York: Routledge.

Tosti, G. (1897). The Sociological Theories of Gabriel Tarde. *Political Science Quarterly, 12*(3),

   490-511.

Tsai, N. Y., & Wang, J. J. (2022). Contemporary integrated community planning: mixed-age,

   sustainability and disaster-resilient approaches. *Natural Hazards*, 2133–2166.

   doi:https://doi.org/10.1007/s11069-022-05259-1

U.S. Department of Homeland Security. (2022). *Declared Disasters*. Retrieved from FEMA:

   https://www.fema.gov/disaster/declarations

University of Utah. (2022). *Community Emergency Response Team (CERT)*. Retrieved from

   University of Utah School of Medicine:

   https://medicine.utah.edu/rmcoeh/research/outreach/cert

Van Brown, B. L. (2020). Disaster Research "Methics": Ethical and Methodological

   Considerations of Researching Disaster-Affected Populations. *American Behavioral*

   Scientist, 64(8), 1050–1065. doi:https://doi.org/10.1177/0002764220938115

Von Krauskopf, D., & Wyman, S. (2019). *Going Beyond the Call:Mental Health Fitness for*

    Public Safety Professionals. Dirt Road Publishing.

Wallace, W. C. (2020). Exploring police response and interaction with people with mental illness

    in Guyana. *Policing and Society, 30*(10), 1226-1242.

    doi:https://doi.org/10.1080/10439463.2019.1680672

Werth, E. P. (2011). Scenario training in police academies: developing students' higher-level

    thinking skills. *Police Practice and Research, 12*(4), 325-340.

    doi:https://doi.org/10.1080/15614263.2011.563970

Appendix A

Standardized Open-Ended Interview Questions

Candidate Questions. First, the candidate must meet the selection criteria set by the researcher.

The closed response questions will be simple:

1) Please introduce yourself as if we just first met.

2) Describe your training experiences as a law enforcement officer; what classes have you taken? Has FEMA training been involved? What was your impression of the training?

3) Was your FEMA training online, in person, or a mixture? About how many of the courses have you completed?

4) Did the trainer represent themselves to have expertise or experience in the topic area, or were they just reading the materials?

5) Were there any students in the classroom that asserted control of the classroom?

6) How did that impact the training and your impression of the training?

7) Describe how this training helped you respond as a professional to a large-scale disaster.

8) Have you been involved in a major disaster? If so, how many? Please explain. The researcher will use the FEMA definitions and examples, such as hurricanes, major fires, and tornados found in the paper's first section.

9) Describe your experiences during that event: how were you impacted professionally and personally?

10) How did the FEMA training prepare you for the disaster response?

11) How do you think the FEMA training prepared you for dealing with the stress during the event?

12) How did it help you with dealing with the stress after the event?

13) Reflecting on the major disaster and your FEMA training, was the training practical?

14) In a disaster, do you feel like you relied on the training you received, or did you choose another course of action?

15) Relate any PTSD or stress-related events that you are comfortable sharing regarding this event; include any training concerns in your answer.

16) Do you have any recommendations for additional training?

17) What type of training would make you feel more confident in your ability to handle major disasters?