Master's Thesis

Critical Incident Stress Management for First Responders

by:
Melissa Lesperance

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We hereby recommend that the Final Project submitted by: **Melissa D. Lesperance**

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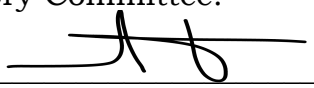
Advisory Committee:



D.J. Wasmer

We certify that in this Final Project all research involving human subjects complies with the Policies and Procedures for Research involving Human Subjects, Saint Mary-of-the-Woods College, Saint Mary-of-the-Woods, Indiana 47876

Abstract:

This paper focuses on the analysis and interpretation of primary research that was conducted on the topic of critical incident stress management (CISM) and post critical incident stress debriefing (CISD) protocol for first responders. Examined in this paper are sources of research from scholarly reviewed journals, legitimate on-line sources, and periodicals that focus on the subject of critical incident stress management and debriefing for first responders. The analysis of the primary research that is illustrated in this paper includes research on different practices around the world and also identifies the need for critical incident stress management and debriefing, potential hazards, and consequences of lack of implementation of post critical incident stress management and debriefing protocols for first responders. The variables are the role of emergency preparedness training, real-time stress management, and critical incident stress debriefing. The research will focus on 3 countries; the United States of America, England, and Israel and the correlation between effective pre and post critical incident protocol implementation and the reduction of the psychological effects that first responders may experience if they are not properly debriefed.

Keywords: emergency preparedness, Critical incident stress management, Critical incident stress debriefing, first responders

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Introduction

Terrence Dean was a 28-year-old member of the New York City Police Department. His co-workers described him as "a good cop and a nice guy" (Goff, 2012). According to an article in the New York Post (Goff, 2012), his fellow officers said that he was the cop who was always laughing. On January 29, 2012, while on-duty, he ended his life in front of several of his co-workers by shooting himself in the head. His fiancée told police that he had seemed depressed and even called the 111th precinct in Queens New York City where Dean was stationed, on the day that he ended his life. Afraid that she was going to get her fiancée in trouble, she reluctantly told his supervisor that she believed he was suicidal and knew that he had been suffering from depression. When officers finally located him, the on-duty officer shot himself in the face even after fellow officers pleaded with him to put the gun down. Understandably in a great deal of shock, one of the officers on the scene stated, "You have to wonder what pressures he was feeling, how bad things were in his life for him to do this. If he had only talked to someone, who knows if things would be different" (Goff, 2012). He left behind a loving fiancée and a five-year-old daughter.

According to a publication from the FBI, a study conducted by The Badge of Life shows that between the years "2008 through 2012, the number of officers who took their own lives is twice the number of officers killed by felons" (Nanavaty, 2013 & The Badge of Life, 2015). First responders across the world consistently deal with horrific situations and are often faced with the burden of dealing with the ramifications of responding to such traumatic events, on their own. The research conducted in this thesis will identify best practices regarding critical incident stress management and debriefing procedures for first responders who have played a role in a critical incident. The variables are the role of emergency preparedness training, real-time stress management, and critical incident stress debriefing. The focus will be on first responder agencies

from the countries England, Israel, and the United States. Also included is the analysis and interpretation of information on rapidly increasing critical incidents throughout the world and the effects of not receiving the proper psychological care and treatment after critical incident.

1.0 Background

1.1 Who are "First Responders"?

Throughout the world, "first responders" who are police, fire, and medical personnel, are constantly being challenged with the task of how to properly handle different situations or incidents that may arise. First responders can be broken down into the following categories and subcategories:

- **Law Enforcement Personnel:**
  1. Command staff
  2. Officers
  3. Dispatchers
  4. Civilian Support Staff

- **Fire Fighter Personnel:**
  1. Command Staff
  2. Firefighters
  3. Dispatchers
  4. Civilian Support Staff

- **Emergency Medical Services Personnel (EMS):**
  1. Command Staff
  2. Paramedics/Emergency Medical Technicians (EMTs)
  3. Dispatchers
  4. Civilian Support Staff

Critical situations or incidents can range from a minor squabble between co-workers to a serious "critical incident". Critical incidents can be defined as serious and/or violent events that are overwhelmingly stressful, so much so, the person's natural ability to cope is compromised. "Work-related stress is a pattern of reactions that occurs when workers are presented with work demands not matched to their knowledge, skills or abilities and which challenge their ability to cope" (Smollan, 2016, p. 225). When a critical incident occurs, it is imperative that first responders participate in a proper debriefing and receive the proper medical and psychological care to reduce the personal and psychological effects of their involvement in such a stressful and sometimes traumatizing incident. According to the National First Responders Organization, there

are approximately 1,752,000 active first responders currently in the United States (National First Responders Organization, 2014). Each of these men and women, volunteer, part-time, and full-time employees, have dedicated their lives to saving lives, reducing the physical pain and suffering of their fellow man, and reducing property loss. Around the world, they are dedicated to helping their fellow man and it is vital that they receive the proper medical and psychological care that they need after playing a role in a critical incident so that they may successfully continue to service the community in which they serve.

1.2 Defining a "Critical Incident"

Worldwide, first responders are faced with the responsibility of dealing with "critical incidents" on a daily basis. Critical incidents, related to first responders, are defined as, "Any event that has a stressful impact sufficient enough to overwhelm the usually effective coping skills of an individual" (Kulbarsh, 2007). Often times, first responders are faced with the challenge of responding to critical incidents with only a minute's notice. "Critical incidents are abrupt, powerful events that fall outside the range of ordinary human experiences" (Kulbarsh, 2007). These incidents often happen without any warning and the first responder is expected to mentally prepare, very quickly, for what he or she may see and/or experience once they arrive on scene. Some common "critical incidents" that first responders handle throughout the world are (see Appendix A for full definitions):

- Active shooter(s)
- Explosives/explosions
- Homicide/Murder
- Suicide
- Fire/Arson
- Robbery
- Work-related death
- Serious work-related injury
- Abuse

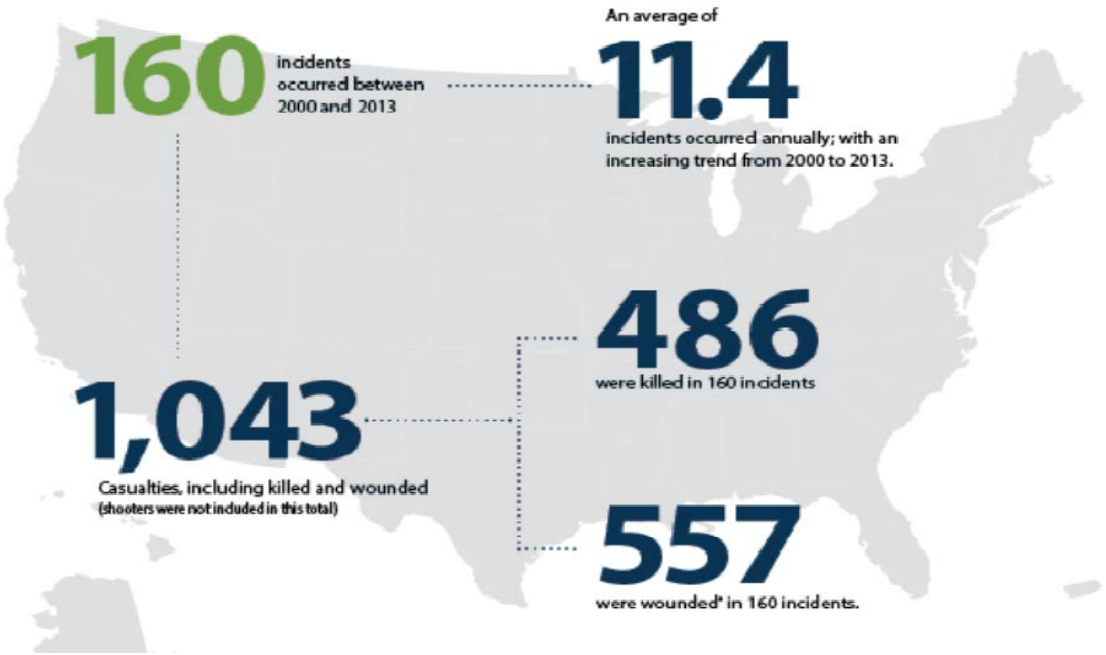
On July 20, 2012, twelve people were killed when a man by the name of James Holmes walked into a movie theater and opened fire on patrons that were watching the latest Batman movie. Without notice, numerous members of local police, fire, and medical departments were dispatched to the scene with information that there was a lone gunman who was shooting people inside of one of the theaters. Per CNN (2016), on the way to the scene of the crime, first responders were given the following information:

- The perpetrator was dressed "head-to-toe in protective gear" (CNN, 2016)
- He was armed with some sort of gas canisters and detonated 2 of them
- He was armed with at least one gun that he had discharged several times injuring numerous people in the crowd

Within minutes, first responders arrived at the scene and did not know the extent of what they were going to face. They knew that the subject was at the very least, armed with an unknown type of gun and some sort of exploding gas canisters. Without detailed information, law enforcement was tasked with the responsibility of locating the perpetrator and eliminating the on-going threat. Descriptions of the perpetrator, James Holmes, were given by witnesses and victims to the dispatchers who conveyed the vital information to the responding units. Holmes was a white male with brightly colored orange hair which gave police a very distinct description of who they were looking for. According to ABC 7 News (2012), the first call for help was received at 12:39am and Holmes was apprehended by police near his vehicle in the parking lot of the movie theater at 12:45am (ABC 7, 2012). According to ABC 7 (2012), at the time of arrest, Holmes was carrying 3 weapons including, "a .223 caliber Smith & Wesson assault rifle equipped with a drum magazine, which can hold upwards of 100 rounds, a Remington 12-gauge shotgun, and a .40 Glock handgun" and a fourth gun was found in his vehicle. From the time that the first call for service came in at 12:39am and the time he was arrested at 12:45am, Holmes managed to kill twelve people and wound seventy others. Had first responders not

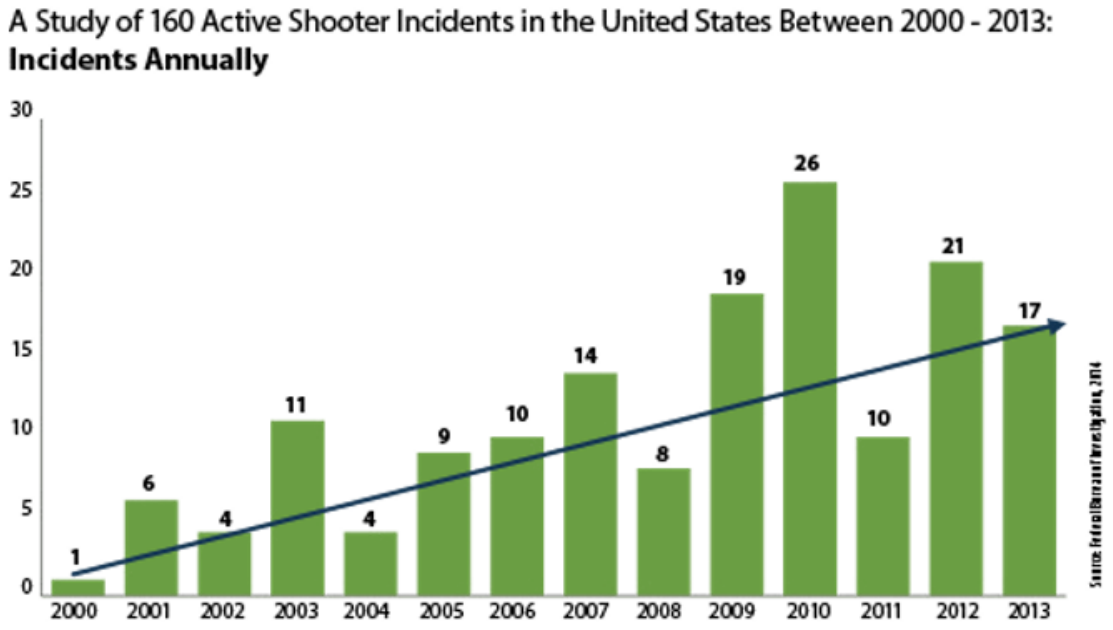
obtained the proper information, more lives could have been lost and the total number of casualties could have risen significantly.

Critical incidents that a first responders may have to handle at any given time during their shift, are on the rise. In a FBI study conducted on active shooter incidents in the United States between the years 2000-2013, “an average of 6.4 incidents occurred in the first 7 years and an average of 16.4 occurred within the last 7 years” (FBI, 2013). As a result of the 160 active shooter incidents that occurred during that time period, “486 people were killed” and another “557 were wounded” (FBI, 2013) as depicted in the illustration below:



(*Figure 1*. Active shooter incidents in the United States from 2000-2013. FBI, 2013)

In a study done by the FBI between the years of 2000-2013, it is clear that the amount of active shooter incidents steadily increasing as depicted in the chart below:



(*Figure 2*. A study of the increase in active shooter incidents in the United States from 2000-2013. FBI, 2013)

With the increase of critical incidents comes the increase for the need to take care of first responders physically, psychologically, and emotionally, especially after they have just played a role in responding to a critical incident.

1.3 The Effects of Critical Incidents on First Responders

The toll that participation in a critical incident takes on a first responder can show itself in many ways. The first responder does not have to have prolonged exposure to these incidents, but rather, can experience negative effects with exposure just to one. Listed below are several ways that a first responder can be affected by a critical incident (see Appendix A for full definitions):

- Suicidal thoughts
- Flashbacks
- Extreme sadness or depression
- "Survivor guilt"
- The lack of ability to concentrate/perform one's job duties
- Tunnel vision

- No emotional disclosure
- Acute Stress Disorder (ASD)
- Post-Traumatic Stress Disorder (PTSD)
- Substance Use Disorder (SUD)

One of the most common effects of being exposed to a traumatizing event or critical incident is developing "Post-Traumatic Stress Disorder" (PTSD). PTSD is a syndrome from which first responders commonly suffer. "Post-traumatic stress disorder is a clinical syndrome resulting from exposure to an extremely traumatic event involving the threat of imminent bodily harm or death to self or another" (Lopez, 2011, p. 33). PTSD causes the person to relive the incident through flashbacks, vivid images, depression, and other sorts of behavior that, if left untreated, can become debilitating. On July 22, 2011, a single perpetrator carried out two attacks, later labeled as terrorist attacks, in two separate locations in Norway. The perpetrator first detonated a bomb in the "government district" of Oslo. Eight people were killed in the first attack and numerous others injured. The second attack occurred on Utoya Island where "69 young adults and teenagers, participating at the Norwegian Labour Party's summer youth camp, were shot and killed" (Skogstad, Fjetland, & Oivind, 2015). The incident at Utoya Island lasted for over an hour and a half. "At Utoya Island, there was no possibility of escape other than swimming, and there were few places to hide, which turned the island into a 'trap'" (Skogstad, Fjetland, & Oivind, 2015). Many of living victims, families, and first responders involved in this incident suffered from PTSD. One traumatic event was enough to cause people to lose their normal coping skills and suffer from Post-Traumatic Stress Symptoms (PTSS), like those listed above. A 2012 study noted that, "Canadian paramedics have a higher PTSD rate than other emergency workers and estimates sixteen to twenty-four percent of its country's medics will be diagnosed with PTSD at some point" (Erich, 2014). It is imperative that first responders receive the proper care post critical incident to help them deal with the effects of the traumatizing event(s) that they

have been exposed to in order to continue to do their job, serve the community in which they serve, and remain mentally healthy.

1.4 Results of Not Seeking the Proper Psychological Care after a Critical Incident

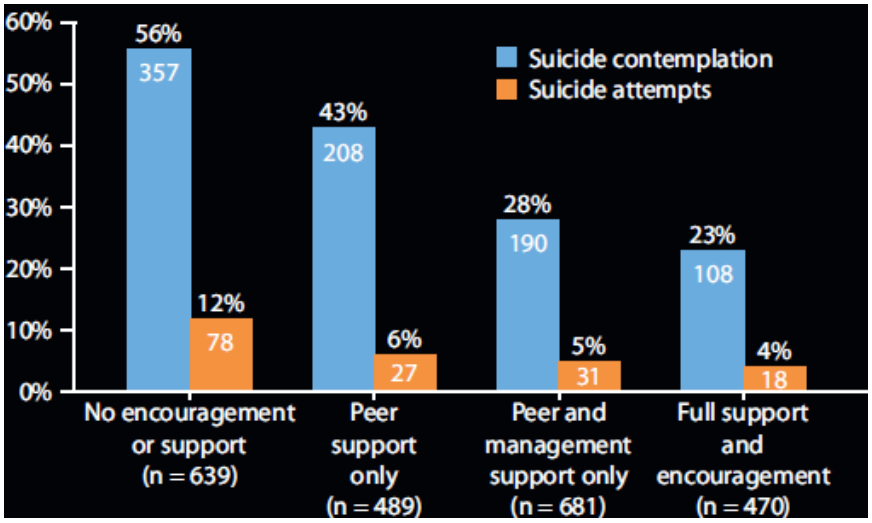
Courtney Smith, a 54-year-old mother of three and a twenty-eight-year veteran paramedic, drove to the end of a country road, three hours from where she worked, texted her children and told them that she was proud of them, and then walked to an open field and shot herself in the head, ending her own life. According to an article in the online version of the Journal of Emergency Medical Services (JEMS, 2015), Courtney could no longer handle the stress of her job or the memories of the critical incidents that she had responded to during her twenty-eight-year career. “Courtney was able to hide the pain and subdue the effects of the nightmares and flashbacks she had almost every day. She knew if she showed any weakness, she would be pulled off the truck and possibly lose her job” (Newland, Barber, Rose, & Young, 2015). According to the same JEMS (2015) article, some of her co-workers stated that she was always in a good mood and seemed to handle traumatic events but others stated that they noticed a “shift” in her personality. There seemed to be, “a shift in her outlook, her mannerisms, her attitude—but [we] didn’t know what to do or what to say” (Newland, Barber, Rose, & Young, 2015). Her co-workers noted that they failed to see the “depth” of her suffering and felt guilty for not speaking up when they realized that something was wrong with Courtney. If Courtney had been at least offered the proper debriefing and post critical incident care, her fate may have been very different.

The authors of the above referenced JEMS (2015) article conducted a study in 2012 and hoped to find answers to the following:

- Was support available to first responders and was it utilized?
- Types of support that were available to first responders
- What would have made support more effective?

The survey link was developed on Survey Monkey and the link was sent privately to each individual participant. It should be noted that the authors referred to the effects of critical incidents as "stress" which is noted below in some of the charts. The participants included 2,279 Emergency Medical Service (EMS) employees from around the United States. Here are some of their findings:

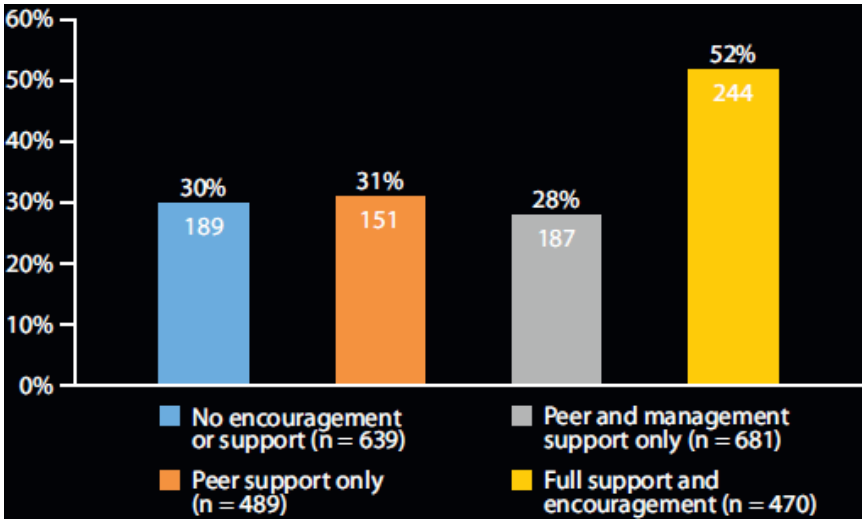
Suicide Contemplation & Attempts in EMS Cultures Surveyed



(*Figure 3*. Suicide in EMS cultures. Newland, Barber, Rose, & Young, 2015)

A staggering fifty-six percent of those who responded to this question stated that they had contemplated suicide while working in an environment where there was no encouragement or support for personnel. An overwhelming twelve percent of those surveyed, who came from environments where there was no employee support for dealing with critical incidents, admitted that they had actually tried to commit suicide.

EMS Providers Who Sought Help for Stress in Various EMS Cultures

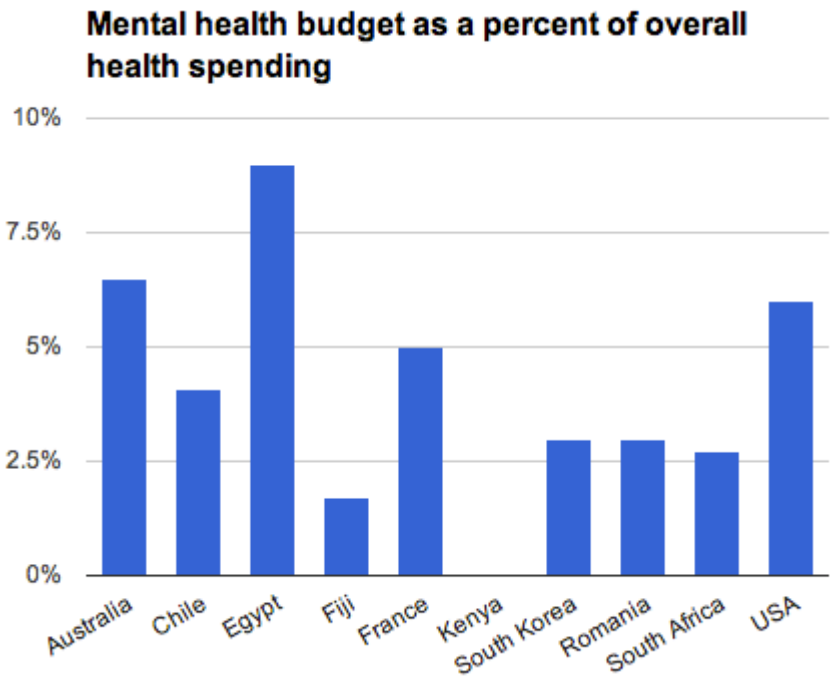


(*Figure 4.* EMS personnel who sought help for stress. Newland, Barber, Rose, & Young, 2015)

In a culture where employees had full support and encouragement to participate in post critical incident care, fifty-two percent of the employees stated that they made use of those programs while only thirty percent of those who work in a culture where there is no encouragement or support to seek help after a critical incident sought help after critical incidents. A staggering twenty-two percent more employees sought out treatment when they had a culture that encouraged it.

1.5 Mental Health Care Costs

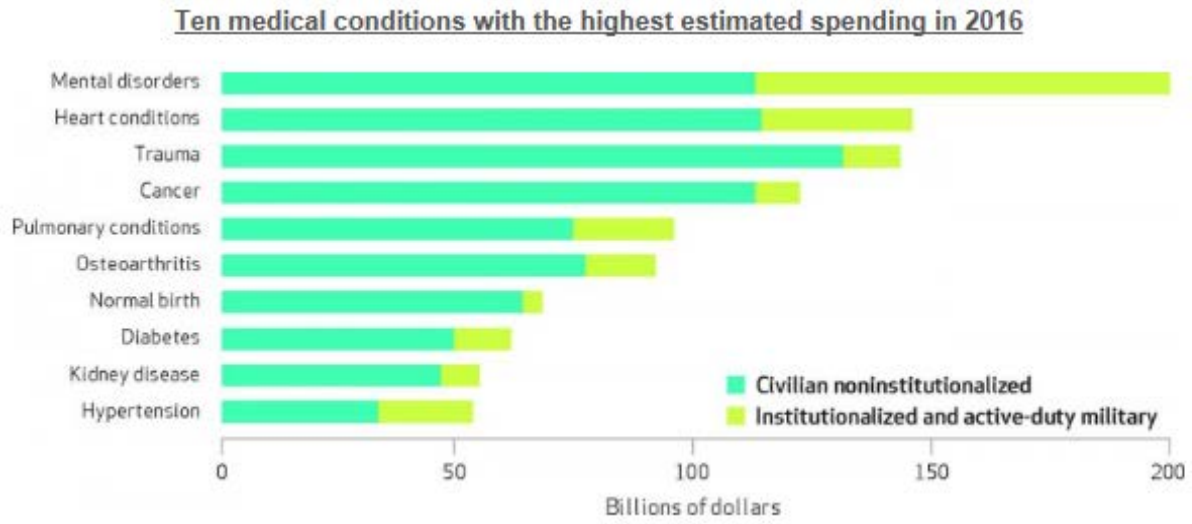
Countries around the world invest in the mental health care of their citizens. "The United States spends $113 billion on mental health treatment" (Kliff, 2012) which works out to be "5.6 percent of the national health-care spending" (Kliff, 2012 & Mark, Levit, & Vandivort-Warren, 2012). In comparison to other countries, research shows that the United States ranks higher than the median range as seen in the chart below:



(*Figure 5.* Worldwide mental health budgets. Kliff, 2012)

Research shows that in 2016, mental health care was the costliest condition to treat in the United States. "A decade ago, heart conditions cost the U.S. far more than mental health disorders. Heart conditions cost an estimated $105 billion in 1996, while mental health cost $79 billion (Flanagan, 2016). Due to the reduction in mental health services in the United States over the years, some people suffering from mental health disorders including but not limited to anxiety, PTSD, and depression are forced to go without the proper mental health care that they

desperately need. The chart below depicts the top ten medical conditions with the highest spending in 2016:

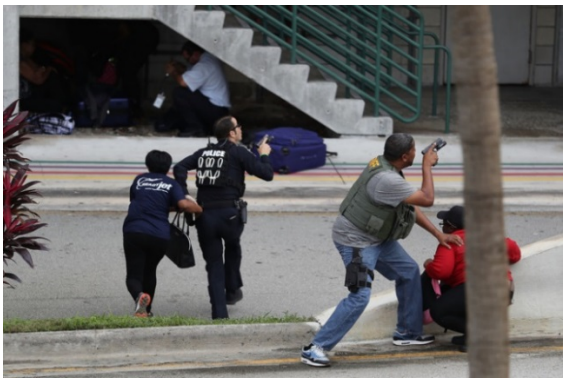


(*Figure 6.* Top 10 costliest medical conditions in the United States in 2016. Flanagan, 2016)

It is estimated, that during the most recent recession of 2008, states "cut $5 billion in mental health services and eliminated over 4,000 public psychiatric hospital beds (ten percent of the entire supply in the country)" (Flanangan, 2016). Law makers believed they would be saving money, when, in reality, the lack of mental health care caused mental health costs to surpass the costs of treating conditions like cancer and heart conditions. Mental health conditions, like the ones suffered by first responders, cannot go untreated. Not only do they affect the first responders and their friends and family, but also the country as a whole, both physically and financially. Mentally healthy first responders are better equipped to do their job and help to protect the communities in which they serve. Mentally ill first responders are less apt to be able to perform their job functions or, sadly, succumb to the conditions of their mental illness by taking drastic measures such as committing suicide. That person who was once there to help save a life is no longer there to help because they have succumbed to the effects of the mental and emotional effects of the critical incident.

1.6 Defining Critical Incident Stress Management (CISM)

Critical incidents occur around the world every day and first responders are tasked with the responsibility of attempting to save lives and prevent the loss of property. On January 6, 2017 Esteban Santiago, a 26-year-old man, boarded a plane from Alaska to Fort Lauderdale, Florida. When he reached Florida, he and the other passengers on the flight were directed to their luggage pick-up location. Once he located his luggage, he opened it, removed a 9mm gun, and started shooting innocent bystanders. In total, five people were killed and numerous others injured (Shoichet, Almasy, & Sanchez, 2017). Officers arrived on scene and began getting as many innocent bystanders to safety as possible, often using themselves to shield the citizens that they were trying to get to a safe place as seen in the images below:



(Raedle & Kriby, 2017)

(The Associated Press & Omaha World-Herald, 2017)

If the stress caused by these critical incidents to first responders is not properly dealt with, there could be grave ramifications. Critical incident stress management (CISM) "is an intervention protocol developed specifically for dealing with traumatic events" (CISM International, 2015). Any involvement in this process is confidential and voluntary. The CISM protocol allows first responders who have been involved in a critical incident(s) to "share their experiences, vent emotions, learn about stress reactions and symptoms and given referral for further help if required" (CISM International, 2015). There are several parts to the CISM model. They are:

- **Pre-Crisis Education (Emergency Preparedness Training)** – Provides a foundation for CISM. Pre-crisis education includes training (awareness, emergency preparedness, and stress management) in hopes that this training will help lessen the effects that critical incidents have on the people involved.

- **Crisis Management Briefing** – This is held during the event, when possible, to reinforce survival skills and healthy coping mechanisms.

- **Defusing** – Defusing is done immediately after the incident and only lasts between 30-60 minutes. This is a quick way to "stabilize" the person who has been traumatized by the event.

- **Debriefing** – This is a group meeting or discussion where participants are urged to talk about the traumatizing incident, "vent", and share their feelings with others in a controlled setting monitored by a mental health care expert (trained counselor, psychologist, psychiatrist, etc.) Debriefings usually occur between twenty-four to seventy-two hours after the incident.

- **Grief and Loss Session** – This session is held following a death. This dialogue creates a way for the person involved to vent or share feelings about the situation leading up to the death, the death itself, and/or the aftermath.

The CISM model even provides training to first responders who want to be "coaches" when critical incidents happen. By having a coach on scene and ready to assist his or her fellow co-workers immediately after the incident, and using the CISM model, the effects that the critical incident has on the employee may be greatly reduced.

1.7 Defining Critical Incident Stress Debriefing (CISD)

Failing to properly "debrief" after critical incidents may cause further psychological trauma for the first responder. A "debriefing" consists of a structured protocol that may include expert psychological care, talking about the incident with peers, an interview (either formal or informal) with superiors, and/or participating in activities, such as journaling one's thoughts, to help properly deal with the psychological trauma that is experienced because of a critical incident. Participating in a critical incident stress debriefing(s) helps to lessen the effects of the critical incident that a first responder may experience. "A critical incident stress debriefing is small

group 'psychological first aid'" (Mitchell, 2009). Critical incident stress debriefing, or "CISD", is "a structured group story-telling process combined with practical information to normalize group member reactions to a critical incident and facilitate their recovery" (Mitchell, 2009). Disclosing an emotional event also leads to decreased levels of depression, anxiety, distress, and anger (Garrison, Kahn, Sauer, & Florczak, p. 230, 2012). Psychologists, psychiatrists, well-trained grief counselors, management, and peers can all play critical roles in the CISD process. If not properly cared for after a critical incident, first responders may experience any or all of the following (see Appendix A for full definitions):

- Suicidal thoughts
- An over-abundance of fear
- Flashbacks
- Extreme sadness or depression
- "Survivor guilt"
- The lack of ability to concentrate/perform one's job duties
- Tunnel vision
- No emotional disclosure

By creating and implementing a strong protocol for post critical incident stress debriefings for first responders, the effects of critical incidents, like the ones that are listed above, can be greatly reduced or eliminated altogether.

1.8 Essential Concepts of Critical incident stress debriefing (CISD)

The critical incident stress debriefing (CISD) model was established by Jeffrey T. Mitchell, PhD. in 1974 (Mitchell, 2009) for those who are labeled as "first responders".

First responders could require CISD because of their involvement in a critical incident. According to Mitchell (2009), the objective of CISD, is threefold:

1. The mitigation of the impact of a traumatic incident
2. The facilitation of the normal recovery processes and a restoration of adaptive functions in psychologically healthy people who are distressed by an unusually disturbing event
3. A CISD functions as a screening opportunity to identify group members who might benefit from additional support services or a referral for professional care

The author also notes that the effectiveness of a CISD is also dependent on timing. Typically, CISDs should occur between twenty-four to seventy-two hours after the event in order for the CISD to be most effective (Mitchell, 2009) but sometimes, due to the size and severity of the event, a formal debriefing won't take place for a few weeks. This gives the participant time to gather their thoughts but also ensures that the person deals with the situation vs. waiting weeks, months, or even years. The longer that a person in need of a CISD goes without, the less likely that the CISD will effectively mitigate some of the effects that the critical incident had on the participant.

There are a few basic steps when conducting a critical incident stress debriefing. First, the facilitator gives an overview of the facts of the incident in order to begin a conversation amongst the participants. The facilitator should carefully provide basic facts about the incident just to start a conversation amongst the group and be cognizant not to share any of his/her personal opinions until later on in the process. The participants should be the ones that share specific details, as they remember them, about the incident as this is a vital part of the debriefing and healing process. The participants will hopefully start to share the details, again, as they

remember them, which may encourage conversation, like-minded opinions or feelings, or even a controlled debate. Conversation amongst the participants may start immediately but also may take several minutes or even hours, due to the severity of the personal trauma that each first responder has endured. At the conclusion of the CISD, the mental health professional may choose to continue the group work at a later time or suggest further individual care for each of the participants. These activities that are included in the critical incident stress debriefing model aid in reducing the psychological effects that critical incidents have on first responders.

2.0 Around the World

2.1 Israel

"An unusual hug caused thunderous applause at a recent Knesset ceremony saluting Israel's emergency medical first-responders and search-and-rescue personnel" (Leichman, 2016). A man who had survived a shooting the year before, climbed onto the stage and gave an Israeli emergency medical technician (EMT) a hug. His name was Parliamentarian Yehudah Glick and he was one of many who survived an attack in that country in 2015. In Israel, it's not uncommon to have first responders from all walks of faith working hand and hand to rescue those in need in their country. The Jewish, Muslim, and Christian faiths are the most practiced faiths in Israel. "United Hatzalah", "Magen David Adom (MDA)", and "ZAKA", are formal organizations of volunteer first responders who work hand and hand with each other to respond to emergencies in Israel. In a country that has historically been the focus of attacks from other hostile countries, these men and women come together, regardless of race or creed, for the betterment of their people. These first responders see horrifying scenes that most people that live in labeled "first world countries" can't even fathom. From bombings to massive terrorist attacks where there are legendary amounts of casualties, these men and women respond to try and save the lives of their fellow man. In a country that has often been divided, these men and woman have found a way to bond and support each other while helping the citizens they serve. Instead of looking at each other as Jewish, Muslim, or Christian or even defining each other as black, white, or Arabic, they choose to remind themselves that as first responders, they are simply "brothers". "During a series of terror attacks in the fall of 2015, a "MDA crew consisting of the ultra-Orthodox men Yisrael Arbus and Haggai Bar-Tov and Fadi Dikdik from Shuafat, an Arab neighborhood of Jerusalem, told a Yedioth Ahronoth reporter, 'We are like brothers'" (Leichman, 2016).

In Israel, first responders rely heavily on each other to debrief after critical incidents. The fallout from certain incidents is so great that sometimes these debriefings cannot be held for weeks due to the massive amount of devastation that the country has endured. Unlike some cultures where professional psychological care is often readily available for first responders, Israeli first responders rely heavily on their faith and sense of pride to get them through these horrific incidents. Yossi Fraenkel is ZAKA's "deputy commander for greater Jerusalem and operations officer for the ZAKA International Rescue Unit" (Leichman, 2016) and is also a volunteer MDA paramedic and volunteer Israeli police officer. Fraenkel has also served as a Chaplin for the New York City Police Department. Fraenkel talks about his tremendous sense of pride for what he does and he states, "We don't see color or race; we see human beings. We are there for everyone, no matter who and no matter where" (Leichman, 2016). With so many cultures and religions present that have historically be adversaries, and some who still have current adversarial relationships, the thought of the "brotherhood" of first responders, which consists of both male and females, is heavily relied on to help with the effects that critical incidents take on first responders. Palestinians and Israelis, Jewish and Islamic, all come together, put their beliefs aside, and do their part to help mankind. This comradery is part of their Critical incident stress management model. By putting these personal issues and beliefs aside and focusing on a common goal, the superfluous stress that may arise within organizations is greatly reduced or even eliminated. Without that extra stress, first responders spend their time focusing on just dealing with what they experience in the workplace responding to critical incidents and most importantly, they do this as a united team.

2.1a Emergency Preparedness Training in Israel

One of the ways that the Israelis try to prepare for disasters and reduce the psychological, emotional, and physical effects from those disasters, is by holding formal disaster preparedness training, which is part of the CISD model, for not only first responders but citizens as well. Men and women are encouraged to participate in these trainings that sometimes last up to three days. In April of 2016, the ZAKA organization held a three-day training course in the "Dead Sea Region" (Leichman, 2016) for the Israeli and Palestinian volunteer first responders. Again, encouraging the sense of pride and brotherhood over race and creed, these 2 groups who have historically been adversaries, came together to prepare for disasters which included becoming educated on the subject of critical incident stress management (CISM). Director Dr. Akram Amro, of the Palestinian group Green Land Society for Health Development (GLSHD) stated that, "Disasters do not differentiate between peoples; they affect everyone" (Leichman, 2016). Amro goes on to state, "Therefore, we too, as residents in this region, must unite in order to be able to help each other, regardless of religion or nationality" (Leichman, 2016).

2.1b Real-Time Critical Incident Stress Management in Israel

Recently, Israel has sought the help of the United States, arguably one of Israel's biggest allies, in obtaining funds for things like situational awareness training. The United States' Department of Homeland Security has formed a coalition with Israel to provide the Israeli's with protective technology and clothing for first responders and also situational awareness training, something that first responders in the United States have been trained in for years. The Israeli's want to be trained in recognizing the signs of potential hostile or terroristic situations in hopes of lessening the effects of or preventing these situations all together. There is a direct correlation between this type of training and critical incident stress. If first responders are trained to

recognize the signs and could possibly eliminate threats before they even happen, the amount of critical incident stress that first responders would experience would be greatly reduced. The Binational Industrial Research and Development (BIRD) Foundation was developed as a way to formalize a partnership between the United States and Israel. Through this partnership, Israel hopes to gain training from the United States' Department of Homeland Security (DHS) and solve issues that plague first responders in that country. Tandem NSI, a security company that works with government agencies to solve emergency technology issues and discover new solutions published the BIRD Foundation's list of requests. The BIRD Foundation has requested help for the following, most of which, if prevented, would reduce the number of traumatizing events that Israel's first responders would have to endure:

1. The ability to know the location of responders and their proximity to risks and hazards in real time.
2. The ability to detect, monitor, and analyze passive and active threats and hazards at incident scene in real time.
3. The ability to rapidly identify hazardous agents and contaminants.
4. The ability to incorporate information from multiple and non-traditional sources (e.g., crowdsourcing and social media) into incident command and operations.
5. The ability to communicate with responders in any environmental conditions (including through barriers, inside buildings, and underground.
6. Communications systems that are hands-free, ergonomically-optimized, and can be integrated into personal protective equipment.
7. The ability to remotely monitor the tactical actions and progress of all responders involved in the incident in real time.
8. The ability to identify trends, patterns, and important content from large volumes of information from multiple sources (including non-traditional sources) to support incident decision making.
9. The ability to identify, assess, and validate emergency-response related software applications.
10. Protective clothing and equipment for all responders that protects against multiple hazards.
11. The ability to identify what resources are available to support a response (including resources not traditionally involved in response), what their capabilities are, and where they are, in real time.
12. The ability to monitor the status of resources and their functionality in current conditions, in real time.

13. The ability to remotely scan an incident scene for signs of life and decomposition to identify and locate casualties and fatalities.
14. Readily accessible, high-fidelity simulations tools to support training and exercises in incident management and response.
15. The ability to monitor and analyze the resilience of the civilian population and influence it by using various methods such as social media, publications, direct instructions, etc.
16. Technological means and devices for handling long term emergencies in urban arenas, including natural and man-made disasters, etc.
17. The ability to detect and deal, in real time, with people's stress conditions (first responders and civilians).
18. The ability to manage, control and contain large scale riots and public disorder events.
19. The ability to neutralize people suspected of being aggressive, violent, harmful and dangerous to the safety and the security of innocent citizens and Responders, by using Non-Lethal weapons.
20. Remote detection capabilities of any kind of weapons (knife, gun, explosive device, etc.), on a person's body, personal belongings or baggage.
21. The ability to remotely detect and contain miniature hostile drones.

(Hoffman, 2016)

As seen in request #17, the Israelis are requesting assistance with learning techniques on how to "detect and deal" with people's stress, including first responders, in real-time. If they can learn and successfully implement those techniques, the effects of the traumatizing event may not be as severe to the first responder. Countries, like The United States, have developed ways to monitor first responders' stress in real-time. Since the Americans already have a best practice model for real-time stress monitoring, they have formed a partnership and are attempting to work on assisting the Israelis with their requests that are listed above. By implementing real-time stress monitoring techniques and other best practices relating to the subject, they will help to preserve the psychological welfare of their first responders.

2.1c Post Critical Incidents for First Responders in Israel

To some, the concept of unity during times of crisis may be an obvious idea, however, in countries like Israel that have experienced years and years of internal and external conflict, a sense of unity in times of crisis is not the easiest thing to achieve. Having the support of the parent organization like ZAKA, United Hatzalah, or MDA, who encourage unity amongst their first responders, helps to ease the level of stress and the effects of critical incidents. In Israel, unity amongst first responders not only occurs during times of crisis but also in emergency preparedness training as described above in section 2.1a. The group mentality is in line with the Critical incident stress debriefing (CISD) model. Dr. Jeffrey T. Mitchell is a clinical professor of Emergency Health Services and the University of Maryland and belongs to the American Academy of Experts in Traumatic Stress, also the developer of the Critical incident stress debriefing (CISD) model, notes that there are many types of critical incident "debriefings". These debriefings are adaptable and can vary due to culture, location, type of event, etc. but the foundation is the same. CISD is a, "structured group story-telling process combined with practical information to normalize group member reactions to a critical incident and facilitate their recovery" (Mitchell, 2009). Mitchell also notes that CISD should be linked to other support services such as pre-incident education or training, just like the emergency preparedness training sessions that the Israelis have created for their first responders. Reducing the effects of a traumatizing event requires a proactively constructed strong foundation which is created by things like emergency preparedness training and this is a practice that the Israelis have adopted and implemented.

Unlike other countries, Israelis have started to utilize Eye Movement Desensitization and Reprocessing (EMDR) therapy for their first responders after a critical incident. Unlike CISD, EMDR is conducted with only the patient and the therapist in the room, not in a group. EMDR is "a form of psychotherapy that was developed by Francine Shapiro to resolve the development of trauma-related disorders caused by exposure to distressing, traumatizing, or negative life events" (EMDR Institute of Israel, 2016). Dr. Shapiro discovered that "eye movements appeared to decrease the negative emotion associated with her own distressing memories" (Shapiro & Forest, 1989 & 1997). According to Dr. Francine Shapiro's theory, traumatizing events may overwhelm the body's "normal" cognitive and neurological functions and coping mechanisms which cause the person to suffer from things like flashbacks, insomnia, severe mood swings, and/or depression. "The goal of EMDR therapy is to process these distressing memories, reducing or eliminating their negative influence and allowing clients to develop more adaptive coping mechanisms" (EMDR Institute of Israel, 2016). EMDR "integrates elements of effective psychodynamic, imaginal exposure, cognitive therapy, interpersonal, experiential, physiological and somatic therapies" (EMDR Institute of Israel, 2016). EMDR differs from other similar therapies in that it also incorporates a "unique element of bilateral stimulation (e.g. eye movements, tones, or tapping)" (EMDR Institute of Israel, 2016) during therapy sessions. The therapy is broken down into 8 phases which can be found paraphrased below (EMDR Institute of Israel, 2016, para. 4-12):

- **Phase 1** – The patient is evaluated and the traumatizing event(s) is identified. The process of EMDR therapy is also reiterated to the patient.
- **Phase 2** – The patient identifies a "safe place". A safe place is an image that the patient pictures in his or her head. It should be somewhere that the patient feels "safe". For example, their 13th birthday party, a favorite vacation spot, spending a holiday with

family in a specific location. This safe place is used in later phases when the traumatizing event becomes too overwhelming for the patient.

- **Phase 3** – A "snapshot" image is identified that represents the patient and the negative event. After that is shown, the patient is told to go to his or her "safe place" and then, not only think of something positive, but also say something positive about themselves out loud.

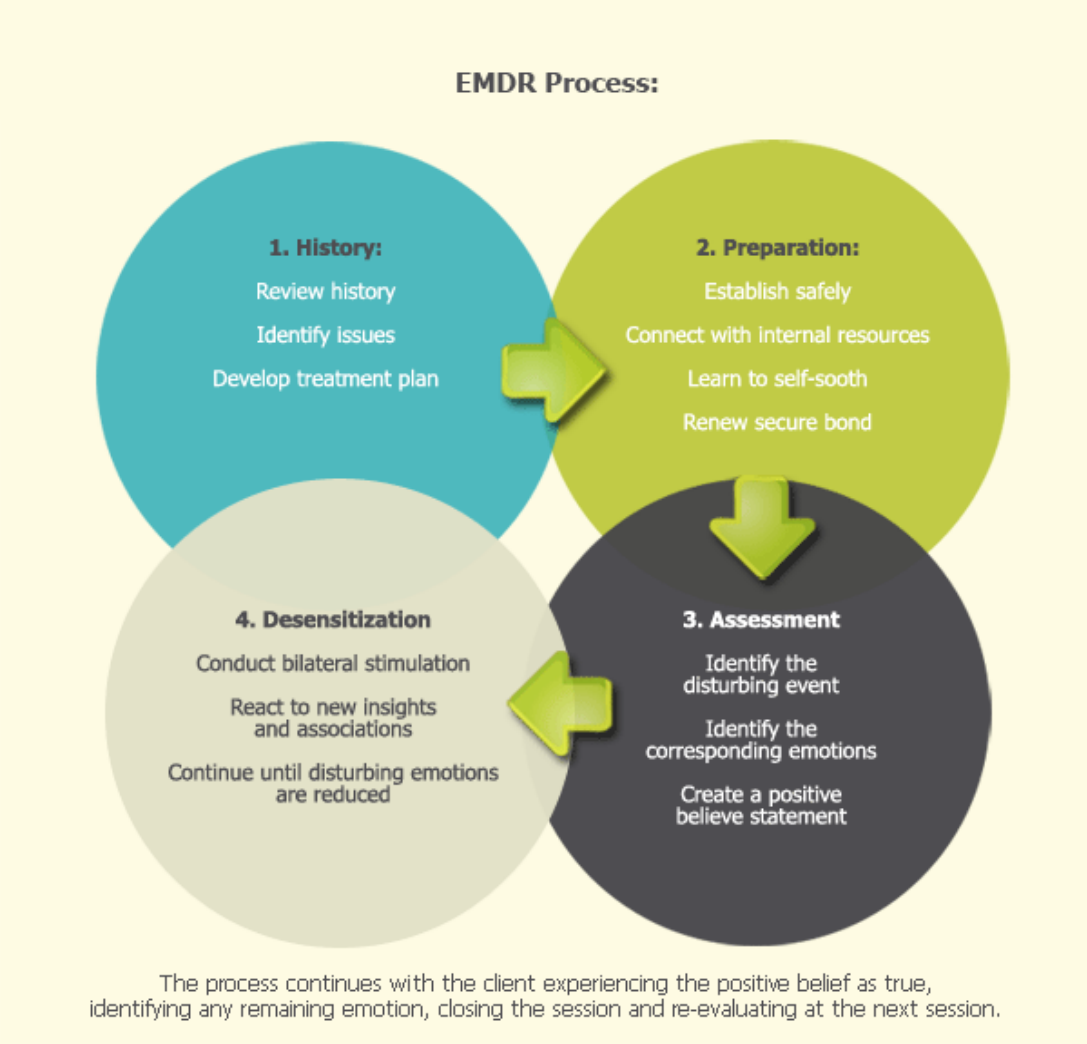
- **Phase 4** – The therapist directs the patient to focus on the image and the specific emotion, thought, or feeling that the patient is having due to the traumatizing event. The therapist then directs the patient to make certain eye movements. For example, the patient may be directed to follow an object with his or her eyes around the room and then report what he or she is feeling at the end of the eye movement exercise.

- **Phase 5** – The "positive cognition" or "PC" is the focus in this phase. The therapist asks the patient to focus on their positive thought while issuing instructions on a new set of eye movements.

- **Phase 6** – The therapist addresses any physical pain that the patient is currently experiencing as a result of the traumatizing event. Again, a new set of eye movements are given to the patient.

- **Phase 7** – The therapist "debriefs" the patient and shares the results of each phase.

- **Phase 8** – Re-evaluation. Any new thoughts or feelings (both positive and negative) regarding the traumatizing event are identified and then each phase is repeated.



(*Figure 7.* The EMDR process. Rum River Counseling, 2017)

According to Shapiro, when the traumatizing event is an isolated incident such as a car accident, approximately three sessions are needed to fully treat the patient. When there are multiple psychologically traumatizing events, such as those experienced by a first responder, many treatments may be needed to fully treat the patient. By using EMDR, the therapist is essentially using positive eye movement and "safe place" images to reprogram the patient's brain and help them to gain positive coping mechanisms that they possessed before the traumatizing incident(s) occurred. This and other types of therapy help the Israeli first responders with alleviating some of the effects experienced because of critical incidents.

2.2 England

Sir Robert Peel was born in 1788 in Bury, Lancashire England. He obtained a degree at Oxford and went on to become a pivotal part of the English government. During his lifetime, he was elected as British Prime Minister twice and was appointed to the positions of "Under-Secretary" and "Home Secretary" (BBC, 2014). In 1822, while serving as the Home Secretary, Sir Robert Peel had the opportunity to implement much needed criminal law and prison reform in England. It was at this time that Peel created the first "Metropolitan Police Force" (BBC, 2014). The officers of the Metropolitan Police Force were commonly referred to "Peelers" or the more commonly known term of "Bobbies" (BBC, 2014). Until this point, England had not had any established first responder group other than localized volunteer fire brigades. By 1839, the Metropolitan Police Force had full Parliamentary support and had grown to include the following:

- Foot patrol
- Mounted patrol (on horseback)
- A marine division

In 1839, the Metropolitan Police Force was renamed the "City of London Police" (Metropolitan Police, 2017). The Metropolitan Police Force/City of London Police Department became the model for policing that other countries, including the United States, modeled their law enforcement agencies after.

2.2a Emergency Preparedness Training in England

First responders in England attend different forms of world-renowned emergency preparedness training each year. Some of the training includes, Parliamentary and Diplomatic protection, response to homicide and serious crimes, and officers have the ability to apply for a specialized unit called the "Territorial Support Group" (Metropolitan Police, 2017). The Territorial Support Group (TSG) is a "Strategic Reserve for public disorder and critical incident response" (Metropolitan Police, 2017). The TSG is ready to respond to any sort of critical incidents, including terroristic, nuclear, chemical, and/or biological. These officers also have the ability to be equipped with weapons such as handguns, assault rifles, and tasers in the event of a critical incident. Law enforcement personnel who are on "routine patrol", either in cars or on foot, do not carry weapons. "The practice is rooted in tradition and the belief that arming the police with guns engenders more gun violence than it prevents" (Noack, 2016). This concept is foreign to countries like Israel and the United States who have first responders that armed with life-ending weaponry. One of the reasons that countries like England have adopted the policy of not arming officers with weapons is to force them to safely find ways, other than force with the use of a weapon, to deal with the situation they are presented with. According to an article in the Washington Post (2016), "British officers on patrol have considered themselves to be guardians of citizens, who should be easily approachable" (Noack, 2016). This practice not only affects law enforcement, but also emergency medical personnel and those in the fire service. Often times, law enforcement will be called to a fire or medical scene that becomes hostile and the officers are tasked with the responsibility of regaining control of the scene, not only for the safety of the citizens on scene but also the medical and fire personnel. Emergency preparedness training like suicide intervention, body language analysis, and interview/interrogation techniques becomes imperative when relying on weapons that provide lethal or less than lethal force is not an option.

"Police officers there have saved lives — exactly because they were unable to shoot" (Noack, 2016). The way that law enforcement professionals train in England directly affects those in other facets of the first responder industry. By reducing the potential for officer involved critical incidents, they are reducing or eliminating the number of incidents that police, fire, and medical personnel may be involved in which then reduces the need for stress management and debriefing. "While there were 461 'justifiable homicides' committed by U.S. police in 2013, according to the FBI's Uniform Crime Report (2014), there was not a single one in the United Kingdom the same year (Noack, 2016 & FBI, 2014). By using their training and finding alternative ways to solve situations, the English are helping to reduce or eliminate the effects of critical incidents for first responders simply by reducing the number of critical incidents. In England, effective emergency preparedness training in managing critical incident stress and reducing the number of critical incidents is essential.

2.2b Real-Time Critical Incident Stress Management in England

Because first responders in England are not focused on using weaponry to respond to critical incidents, unless absolutely necessary, they have found other ways to manage the "real-time" stress of their first responders. One of the ways that they achieve this is by using tools like closed caption television (CCTV) which is a system that is only available to first responders in that country. The British Security Industry Authority (BSIA) estimated that, "there are up to 5.9 million closed-circuit television cameras in the country, including 750,000 in 'sensitive locations' such as schools, hospitals, and care homes" (Barrett, 2013). According to the same article, it is estimated that there is 1 camera for every 11 people in the United Kingdom. These CCTV cameras are invaluable resources to first responders. People monitoring the CCTV system can often view the scene of the call for service, from many cameras, before first

responders arrive. They convey real-time information to first responders going to the scene. The first responder, whether police, fire, or medical, does not have to wonder what he or she is going to encounter when they arrive at the scene, but rather, is armed with specific information as to the nature of the call for service and/or what is happening in real-time at the scene which reduces the amount of pre-arrival stress that the first responder may incur. The CCTV system can also be used to monitor the real-time stress of first responders that are at the scene of routine, serious, or critical incidents. The people monitoring the CCTV system act as extra sets of eyes on the scene and because of the camera's range of vision, can often see things that the first responders cannot.

England relies heavily on their CCTV system and notes that, "in 2009, ninety-five percent of Scotland Yard murder cases used CCTV footage as evidence" (Barrett, 2013). The English publicize statistics like the one listed above and the general use of their CCTV system in hopes that it will be a deterrent for would-be criminals. Unlike schools in countries like the United States where critical incidents are on the rise, the English have also installed approximately 400,000 – 500,000 cameras in and around schools, both public and private, in hopes of deterring and reducing the effects of crime.

2.2c Post Critical Incident Practices for First Responders in England

Unlike a lot of countries, the English government has formalized post critical incident care. A formal "guidance" was developed under the English "Cabinet Office" and national standards set. "The Emergency Response and Recovery guidance aims to establish good practice based on lessons identified from responding to and recovering from emergencies, both in the UK and internationally" (Government of the United Kingdom, 2013). The "guidance" was given a major update after the reports from the London bombings that occurred in 2005 were analyzed. This guidance goes beyond the traditionally recognized police, fire, and medical first responders

and includes, the coroner, local councils, armed forces, and the community. Formal Critical incident stress debriefings are common practice in England. Participants are encouraged to be "honest and open" (Government of the United Kingdom, 2013) during these debriefings and if the results can be used to lessen the effects of critical incidents in then it is common practice to share the results (the participant's identity is kept anonymous).

The English have adopted practices where they analyze incidents, establish best practices, and identify downfalls of critical incident response so they can change their methodology and/or protocol to respond to future incidents more effective and efficiently. First responders are included in several sections of the "guidance" including the "Humanitarian assistance: meeting the needs of those affected" (Government of the United Kingdom, 2013) section. Unlike other countries, England is focused on not only the short term but the long-term care of their first responders after critical incidents. This care is outlined in the "NHS Emergency Planning Guidance" which is described as "Planning for the psychosocial and mental health care of people affected by major incidents and disasters: Interim national strategic guidance" (NHS Emergency Planning Guidance, 2009). In this guidance, there are key principals that help organizations meet the "psychological needs and mental health challenges posed by emergencies, major incidents and disasters" (NHS Emergency Planning Guidance, 2009). Some of these principals include:

- Strategic preparedness supports resilience and reduces risk
- Every area should have a major incident plan within which psychosocial care is integrated
- Senior officers and decision-makers should have resources available to them. Experienced advisers who are trained on the psychosocial and mental health aspects of major incidents and disasters are 2 of those resources.

- Professional responders are also vulnerable to the psychosocial impacts of major incidents and disasters
- Both rapid, short-term responses and long-term services are required in meeting the psychosocial and mental health needs of people who are affected by major incidents and disaster
- It is important to distinguish resilience, distress, and mental disorder when designing robust responses to the psychosocial and mental health needs of people who are affected by major incidents and disasters
- Services should be based on the principles of psychological first aid

(NHS Emergency Planning Guidance, 2009).

By having this nationally recognized model of post critical incident care, first responders are almost absolutely ensured of receiving the proper psychological care that they require after responding to a traumatizing critical incident. By establishing this guidance, the government shows that they are committed to the psychological care of their first responders. These government set standards take the question of "if" the first responder is going to receive post critical incident care out of the equation. Unlike other countries, this protocol is not optional but rather, required. By establishing the psychological care model outlined in the Emergency Planning Guidance, the English government is doing their part to reduce the effects of critical incidents on first responders and to help to preserve and maintain healthy psychological care for each first responder.

2.3 The United States of America

Historians date the first law enforcement group in the United States to the mid 1600's. Colonists appointed constables who formed a "watch" in Boston, Massachusetts. The first fully operational American police department was established in 1833 in Philadelphia, Pennsylvania. This fully functioning, organized police department was operational twenty-four hours a day, year-round (National Law Enforcement Museum, 2012). The police department in Philadelphia was modeled after Sir Robert Peel's Metropolitan Police Force in England. Slowly but surely, other large cities adopted the same type of policing model and departments were formed in cities across America like New York, Boston, Chicago, and Detroit. Soon after, the first formalized fire department was formed in Cincinnati, Ohio. On April 1, 1853, the city of Cincinnati established the first professional fire department in the United States which employed full time employees (Cincinnati Government, 2017). Currently, there are more than 900,000 police officers (National Law Enforcement Officers Memorial, 2017), over 1 million fulltime and volunteer firefighters (Haynes & Stein, 2016), and 236, 890 paramedics/emergency medical technicians (EMTs) (US Bureau of Labor, 2015) in the United States. Like other countries, first responders in the United States work tirelessly to serve the citizens in the communities where they are employed.

2.3a Emergency Preparedness Training in the United States

Emergency preparedness training is a standard with first responder agencies across the United States. Each first responder, whether he or she is a police officer, firefighter, or emergency medical professional, are required to go through an academy where they learn vital aspects of their job, including how to deal with the stress related to critical incidents and how to respond to the incidents themselves. Police and fire personnel attend academies that are

anywhere from four to six months in length while EMTs and paramedics attend training that could last anywhere from six to twenty-four months, depending on their trained level of medical response. After the initial training, it is customary that each first responder go through a probation phase at their department to make sure that they can perform up to the standards that are not only set by each individual department but also each state. Many departments also hold in-service training where the employee participates in training on a specific subject during the work day vs. performing their normal job functions. Some training subjects include:

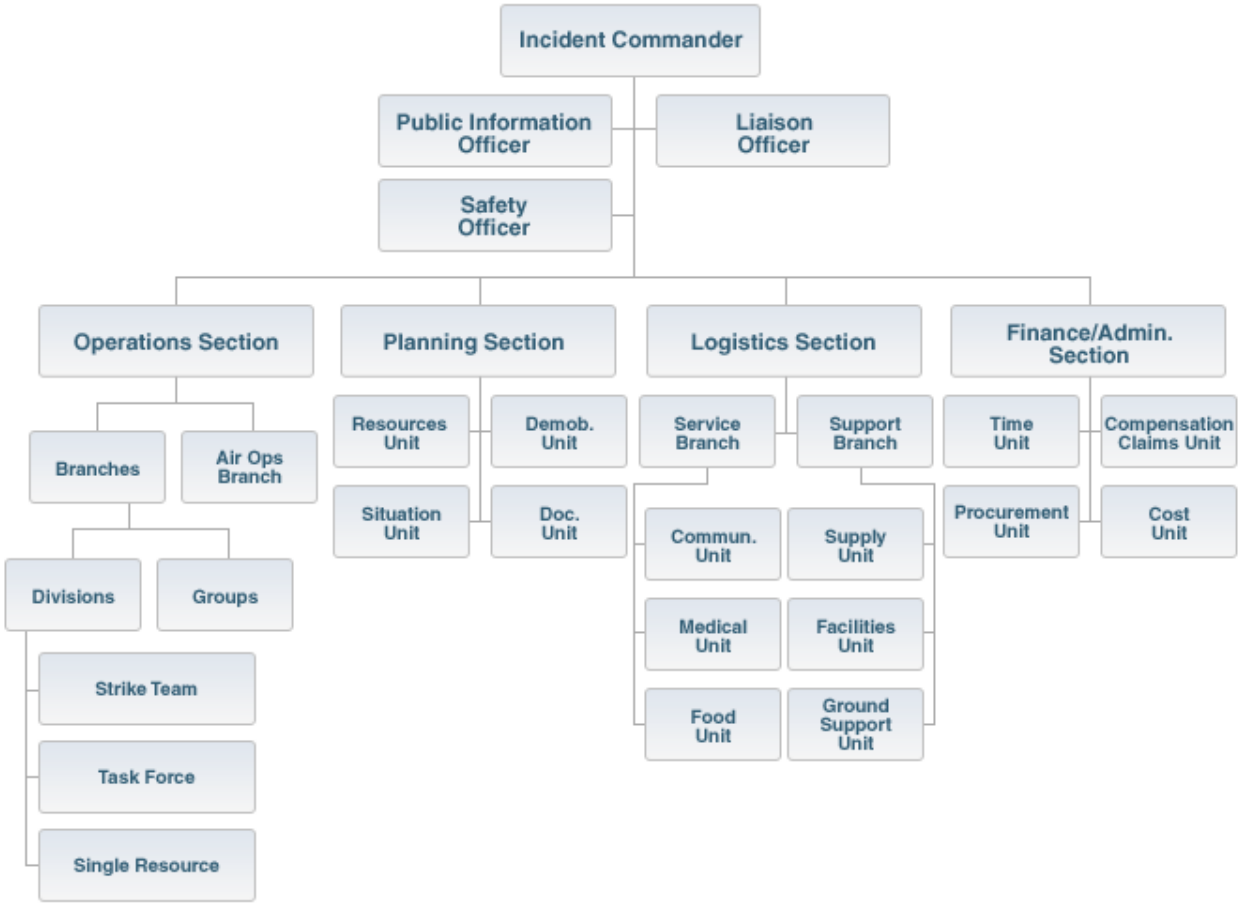
- Active shooter response
- Suicide intervention
- First aid/automatic external defibrillator (AED)
- Blood borne pathogen training
- Hazardous materials training
- Large and small scale event training

Many smaller departments are also entering into mutual-aid agreements with larger departments so that, in the case of a large scale critical incident, departments already have an agreement in place in order to assist other jurisdictions if need be. Smaller jurisdictions are even studying critical incidents that have taken place throughout the United States and implementing protocol derived from the findings of those best practices. For example, on April 16th, 2007 a twenty-three-year-old man by the name of Seung-Hui Cho entered Virginia Polytechnic (Virginia Tech) University, entered several of the buildings, and killed thirty-two victims by shooting them (CNN, 2016). Police personnel were delayed in responding to the victims and attempting to locate the gunman due to the fact that he had chained a lot of the doors, to the locations where he targeted, shut. After that incident, first responder agencies across the United States studied the facts and implemented protocol that would help them to respond more efficiently if a similar incident happened in their community. The Wayne State University Police Department, in Detroit, Michigan, was one of those agencies. After the Virginia Tech

incident, the Wayne State Police Department armed each one of their patrol vehicles with "breaching tools", like battering rams and Halligans, that would be able to break doors down, pry doors open, and cut locks. This was in an effort to ensure quicker response should a similar incident happen on that campus. It wasn't enough to put the tools in the patrol vehicles, they also had to train their officers. Since 2007, the officers at that department routinely train in-house and with other departments including the Wayne County Sheriffs, Detroit Police and Fire Departments, and local paramedic services. "We routinely train all WSUPD Officers in how to quickly and effectively respond to and stop an Active Shooter" (McKenna, 2016). All of this training is done to not only reduce the number of casualties due to critical incidents but also to reduce the amount of stress that comes from being a part of these types of traumatizing events.

2.3b Real-Time Incident Stress Management in the United States

In the United States, first responder agencies have adopted the "incident command" structure as a way to monitor real-time stress of first responders and create a sense of structure in often chaotic situations. The "Incident Command System" (ICS) was developed in 2004 by the United States Department of Homeland Security (FEMA, 2016). The ICS was developed in an effort to create a strong command structure at the scene of various incidents, including those that are deemed to be "critical". ICS is "a standard, on-scene, all-hazards incident management system" (FEMA, 2016) that is utilized by first responder agencies across the United States. The Federal Emergency Management Agency (FEMA) is responsible for maintaining protocol related to ICS and offers agencies across the country resources on how to properly implement and maintain incident command structures. Below is FEMA's approved incident command structure:



(*Figure 8.* The "Incident Command" structure. FEMA, 2016)

Prior to the implementation of the ICS model, police, fire, and medical personnel often did not communicate effectively at the scenes of critical incidents. Vital information would not be effectively communicated to other agencies on the scene, stress levels would raise, and unnecessary internal chaos would ensue. The ICS model was developed to eliminate those issues. At the beginning of a critical incident, such as an active shooter, an "incident command" (IC) is set up in a safe place near the scene of the incident. The safe place could be anywhere from one block to a couple of miles away. At the IC, high-ranking leaders from each agency that is present come together to quickly formulate a united plan between all agencies. Agencies that once worked alone are now joined together to form a stronger, united response. This also helps management monitor the real-time stress level of the employees that are involved. For incidents

that are lengthy, such as a large fire, ICs also serve as a resting area for employees who need a break. In the ICS model, there are even provisions for getting the first responders things like food or replacement clothing which can help to reduce their real-time stress. ICs also usually include a triage area for emergency medical services. The ICS model is very much a team approach with the idea that the stronger the team, the more lives that can be saved and the more efficient the response.

2.3c Post Critical Incident Practices for First Responders in the United States

In the United States, first responders often are expected to deal with traumatizing events without receiving the extent of psychological care that they need to properly "debrief". "Fred" had been a fire fighter for over fifteen years. When interviewed, he was asked how he and his co-workers deal with the stress of traumatizing incidents. He responded, "We joke around and pretend it doesn't bother us" (Reagan, 2016). This happens all too often throughout first responder agencies in the United States. In the same article, a woman named Christine, who works at a Children's hospital, also admits that she does not talk about the traumatizing incidents that she witnesses. "These memories haunt her at night when she tries to sleep" (Reagan, 2016). In contrast to England, which has a well-rounded post critical incident treatment plan for everyone involved, the Americans tend to focus more on treating the victims. "To date, much of the scientific focus on treating trauma has focused on the needs of victims of combat and rape" (Flannery, 2015). There is, however, a second group of people who are in desperate need of post critical incident psychological care. "This group is comprised of first responders, those who run toward the critical incident when the rest of us are running in the opposite direction" (Flannery, 2015). Often, seeking psychological care is up to the first responder and is not part of departmental mandatory procedures. Not having a standardized procedure which clearly outlines

post critical incident psychological care for first responders means that a lot of first responders go without.

More and more, American first responders are seeking help and trying to invoke a change in protocol. While some departments have clearly designated protocol for post critical incident psychological care by using models like the CISD model, others have loosely configured protocol which leads to interpretation which often means that the first responder receives little or no care. Matthew Carlson was a certified medical and fire first responder. One night, while on duty, he responded to a call of a house fire in a local neighborhood. As he was performing CPR on one of the victims, he realized that he was surrounded by several children who ended up losing their lives (Shallcross, 2015). After this traumatizing event, he began to realize that he was showing signs of PTSD. "I had lost who I was and felt I had to reach out or I was going to self-destruct," (Shallcross, 2015). He sought counseling on his own, without the support of his department, and eventually overcame his PTSD. Because of what he went through and the overwhelming success that he had with his counseling experience, he decided to become a counselor and started "Resilience Consulting, through which he offers training and education on psychological resilience to first responders" (Shallcross, 2015). Matthew is now a member of the American Counseling Association and is trying to implement mandatory protocol for the psychological care of first responders around the United States. If the United States does not do something to standardize psychological care for first responders, the number of deaths, injuries, substance abuse, and burn-out amongst first responders is going to continually rise.

2.4 Israel, England, & the United States of America – Similarities & Differences

Practice	Israel	England	The United States of America
Emergency Preparedness Training	◆Cross cultural/religious training ◆Can last for up to 3 days ◆Making great strides to overcome religious and cultural barriers in order to work together for the betterment of mankind	◆World renowned specialized training (Diplomatic protection, etc.) ◆Specialized units (armed) like the Territorial Support Group (TSG)	◆Must complete a specialized training "academy" ◆Probation period within their department after the academy ◆Other specialized response training received like active shooter, suicidal subject, etc.
Real-Time Critical incident stress management	◆Has formally requested assistance from the United States Government regarding real-time critical incident stress management ◆Formed a partnership with the U.S. Department of Homeland Security to obtain such help and study best practices (Binational Industrial Research and Development (BIRD) Foundation)	◆Uses a very robust Closed Circuit Television (CCTV) system to monitor critical incident stress of their first responders ◆Uses the estimated 5.9 million closed circuit cameras in the country to locate and prevent crime from happening	◆Uses a "Incident Command" structured approach ◆Allows communication and collaboration between first responder groups
Post Critical Incident Practices	◆First responders rely heavily on their sense of camaraderie and "brotherhood" ◆Use therapy like Eye Movement Desensitization and Reprocessing (EMDR) to help with issues like PTSD, etc.	◆Has a formal "guidance" issued by the English government which outlines protocol for post critical incident psychological care for first responders ◆Includes a broader list of categories under "first responders" that are covered by the guidance like coroners and government officials who have played a role in a critical incident	◆Rely on heavily on their co-workers to talk with each other about critical incidents ◆Post critical incident care protocol is set by each department and is sometimes very disjointed ◆Very focused on the post critical incident care of victims Departments sometimes use the Critical incident stress debriefing (CISD) model

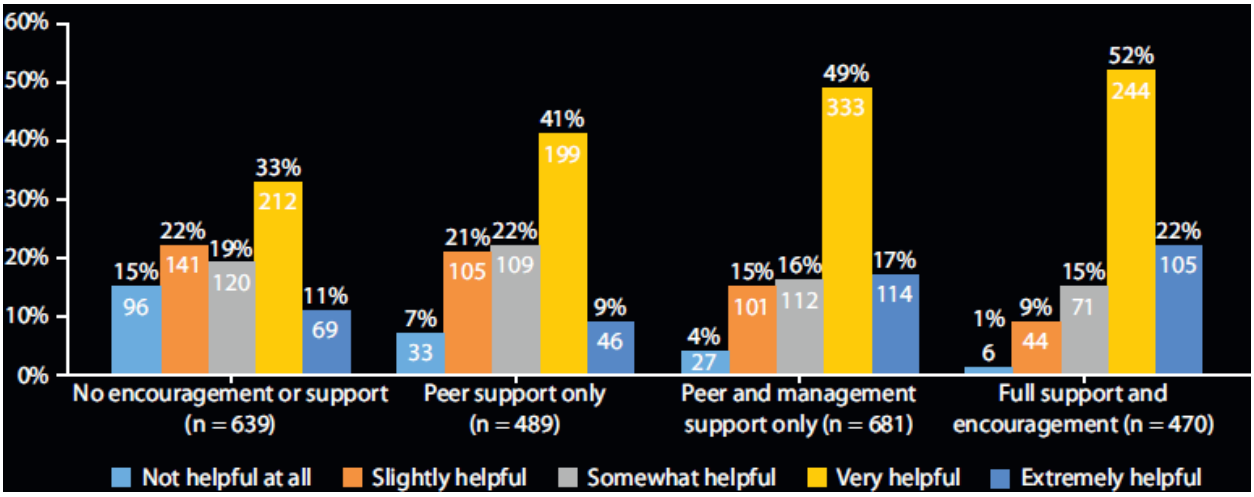
3.0 Creating a "Safe" Culture for First Responders

Research shows that it is imperative that the parent organization support the care of their first responders and create a workplace environment that encourages employees to seek the proper care that they need. Creating a "safe" culture helps to reduce the negative stigma that sometimes is attached to seeking and/or receiving the proper psychological care. The below chart illustrates the results of a 2015 study conducted in the United States where 2,279 first responders were asked the following questions:

1) What was your perception of the level of help and/or encouragement that your employer gave you when regarding seeking work-related psychological help?

2) How helpful did you feel the psychological help that you received was? (Newland, Barber, Rose, & Young, 2015)

Level of Support/Encouragement Given by Management to Seek Psychological Care



(*Figure 9.* Study results on level of support provided by management – Psychological care. Newland, Barber, Rose, & Young, 2015)

As illustrated above, fifty-two percent of first responders that had "full support and encouragement" from their employer found that the psychological care that they received because of a work-related incident was "very helpful" and twenty-two percent felt that it was "extremely helpful". These numbers contrast with those first responders whose employers gave them "no help at all" when it comes to receiving psychological care due to job related incidents.

Only thirty-three percent found the psychological care that they received "very helpful" and eleven percent found the care "extremely helpful". This research clearly illustrates the fact that a safe work culture where employers encourage their employees to receive the psychological care that they need creates a higher success rate pertaining to that psychological care.

3.1 Creating Buy-In

There are several ways that first responder agencies can create a safe culture within their departments. Creating a safe work environment may require a cultural change which some employees may respond adversely to. Listed below are ways to help create buy-in with employees:

- **Show empathy** – "Employees are more likely to hang on to the fear, uncertainty, resentment and other emotions that big changes bring if it seems to them that management has no clue about how they feel" (Marks, 2010). As illustrated in the research above, when first responders have total encouragement from their supervisors and/or parent organization, and feel like the employer understands when they are going through, first responders are more likely to respond positively to the psychological care that they receive.

- **Clear and open communication between ranks** – Communication needs to be encouraged between ranks. Utilizing different forms of communication like face-to-face conversations, e-mails, and/or handouts can be helpful as not every employee prefers and positively responds to the same method of communication.

- **Establishing new procedures** – Employees need to play a role in establishing the new procedures. Not only will they be educated on the subject matter but, "their involvement bolsters their commitment to the transition by helping them maintain a sense of control" (Marks, 2010) thus, helping to create employee buy-in.

- **Encourage all employees to seek psychological care when necessary** – This may require facilitating that care. Bringing in trained counselors or other mental healthcare professionals and/or finding an off-site treatment center are options that can be utilized. Creating different avenues of treatment and different opportunities shows the employee that they have support.

3.2 Develop and Implement a Policy for Post Critical Incident Protocol

Developing a clear-cut policy that outlines procedures for employee care post critical incident will help to ensure that not only the proper care is available but also to preserve a safe workplace culture. If there is a strong, clear-cut policy in place that does not leave room for interpretation by different Department members, the question of whether or not the first responder will receive the necessary post critical incident care, is taken out of the equation. Departments must act on behalf of their employees' best interest which includes psychological care, for without that care, the first responder may suffer and may not be able to perform their job functions at all. This not only affects the first responder, but their family, their friends, the Department in which they work for, and the community in which they serve. The policy should include clearly defined protocol with the following subsections:

Immediate Response:

- Tend to the employee's physical injuries
- Remove the employee from any imminent danger if possible
- If the employee is demonstrating any of the post-traumatic stress symptoms outlined in appendix A, seek psychological care at an emergency facility immediately

Post Incident Response:

- **Time off –** Depending on the severity of the incident, the employee may need time off. This should be clearly outlined. For example, if the first responder is a law enforcement officer who is involved in a shooting, he/she should be off for a pre-determined amount of time in order to recover from the critical incident.
- **Debriefing –** Debriefings should occur in a reasonable time (the department should list a specific time period) after the incident with the proper (specifically named) mental health care professionals' assistance.
- **Follow-up care –** There should be follow-up care with the employee(s) after the Critical incident stress debriefing(s). Further care may be needed.

4.0 Summary

4.1 Summary of Research

The purpose of the secondary research that was conducted was to help to illustrate the need for post critical incident care for first responders worldwide and to and create a solid foundation for further research on the subject. Research showed that not only is the practice of formalized post critical incident stress debriefings (CISD) vital to the psychological care of the employee but also the importance of the proper emergency preparedness training (the subject matter may vary due to location and environment) and also real time critical incident stress management (CISM). Research also shows that first responders are in desperate need of the proper psychological care which was illustrated by the statistics and real-life incidents that are that are listed above. It was also found that the cost of mental health care in the United States has now surpassed treating people with heart conditions and cancer; a trend that is likely to be a direct link to the reduction of mental health services that are available in the U.S. It was also found that those employees who view their employers as providing "full support and encouragement" in reference to seeking psychological care due to work related issues, are nineteen percent more likely to feel that the help that they received was "very helpful" compared to those who believe that their employers gave them "no encouragement or support". This research also helped to prove that creating a "safe" workplace culture where first responders feel that seeking psychological care is not only accepted but encouraged, can help to reduce the number of incidents, like first responder suicides, that occur because of the trauma of dealing with critical incidents. Research also showed that a crucial part of creating that "safe" workplace environment for first responders is having a well-developed policy which clearly outlines post critical incident procedures for first responders. This document should include clearly stated directives on the subject of required time off, formalized debriefings, and follow-up care.

Finally, outlined in this paper are models that first responder agencies around the world can utilize. The concepts of both the critical incident stress management (CISM) model and the critical incident stress debriefing (CISD) build upon each other and are transferrable to any first responder agency around the world, regardless of culture, religious affiliation, and/or racial makeup. These models along with the other research that was analyzed and interpreted in this paper create a strong model for first responder agencies to use in order to mitigate or completely eliminate the effects that traumatizing critical incidents have on first responders.

4.2 Limitations

Due to the ten-week timeline, the amount of information that could be analyzed and interpreted was limited. Due to the time constraint, secondary research could only be conducted on three countries; Israel, England, and The United States. Interpretation and analysis of best practices/protocol was conducted and compared and best practices and effective and ineffective policies and procedures were identified. Sources were limited to scholarly journal articles, legitimate on-line sources (government agencies, etc.), and legitimate periodical sources.

4.3 Future Research

The interpretation and analysis of the research illustrated in this paper has produced an opportunity for future, more in-depth, research on the subject of critical incident stress management and critical incident stress debriefing protocol for first responders. The global research that was analyzed and interpreted above, focused on the best practices of three countries. Future research could open doors to discovering new best practices from a more robust group of countries. This research could lead to the development of more in-depth protocol based on the analysis of global practices. Other research opportunities on this topic include deeper research on racial and religious unity, including best practices, amongst first responders, how

that unity contributes to the relief of work-related stress and the reduction of the effects that participation in critical incidents takes on the individual first responder and the first responder unit as a whole. It is crucial that the world take a global approach to topics like this, since the effects cross cultural and religious barriers, and future research could help achieve this goal.

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Appendix A – Glossary

During the analysis and interpretation of the research that is referenced above, several different terms and acronyms were used. These terms are listed and defined below:

Disorders

- **Acute Stress Disorder (ASD)** – "is characterized by the development of severe anxiety, dissociative, and other symptoms that occurs within one month after exposure to an extreme traumatic stressor (e.g., witnessing a death or serious accident)" (Bressert, 2016).

- **Post-Traumatic Stress Disorder (PTSD)** – "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" (Mayo Clinic, 2016).

- **Substance Use Disorder (SUD)** – "Substance use disorders occur when the recurrent use of alcohol and/or drugs causes clinically and functionally significant impairment, such as health problems, disability, and failure to meet major responsibilities at work, school, or home" (SAMHSA, 2015).

Types of Critical Incidents

- **Active shooter(s)** – an individual who is actively engaged in killing or attempting to kill a person or group of people by using a firearm

- **Explosives/explosions** – a substance that can be made to explode such as a bomb, grenade, or other exploding device

- **Homicide/Murder** – the intentional and unlawful killing of another human being

- **Suicide** – voluntarily and intentionally taking one's own life

- **Fire/Arson** – the act of destructing property by illegally setting a or using fire

- **Robbery** – taking someone else's property through the use of force (i.e. with a weapon or by injuring the victim)

- **Work-related death** – a death as a result of a work-related action(s)

- **Serious work-related injury** - an injury as a result of a work-related action(s)

- **Abuse** – to treat a person or animal with violence or cruelty

Other Effects of Traumatizing Critical Incidents that First Responders Experience

- **Suicidal thoughts** – When a person believes that taking their own life is an option by use of weaponry, narcotics (prescribed & illegal), and other forceful methods. Each year, "[worldwide] suicide accounts for more than all deaths from wars and homicides combined" (Chatard & Selimbegovic, p. 587, 2011).

- **Flashbacks** – A flashback is "acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative flashback episodes" (Sullivan & Elbogen, p. 2, 2014).

- **Extreme sadness or depression** – Depression is a, "mood disorder that causes a persistent feeling of sadness and loss of interest" (Mayo Clinic, 2017).

- **Survivor's guilt** - When a person "internalizes any mishap as a personal failure, leading to self-blame" (Fragedakis & Toriello, p. 483, 2014).

- **The lack of ability to concentrate/perform one's job duties** – When a person loses the ability to focus on a task or job function

- **Tunnel vision** – Is defined as "one's tendency to focus on a single goal or point of view" Gasaway, 2016).

- **No "emotional disclosure"** – No emotional disclosure refers to refusing to share "information about one's emotional experiences" (Garrison, Kahn, Sauer, & Florczak, p. 230, 2012).