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## The Lived Experiences of Spouses of First Responders Incident to the October 1, 2017, Mass Shooting in Las Vegas, Nevada

Kareen LaRae Benson  
*Walden University*

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# Walden University

College of Psychology and Community Services

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Karen LaRae Benson

has been found to be complete and satisfactory in all respects,  
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Review Committee

Dr. Jana Price-Sharps, Committee Chairperson, Psychology Faculty

Dr. Robert Meyer, Committee Member, Psychology Faculty

Chief Academic Officer and Provost  
Sue Subocz, Ph.D.

Walden University  
2024

Abstract

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by

Kareen LaRae Benson

MPhil Forensic Psychology, Walden University, 2021

MBA, Utah State University, 2002

MS Counseling, University of Central Missouri, 1981

BS Psychology, Brigham Young University, 1979

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Forensic Psychology

Walden University

August 2024

## Abstract

Research concerning first responders delves into understanding their job environment, their exposure to work hazards, and their reactions to traumatic events. However, few scholars have considered the impact of first responder work on their spouses/partners. Consequently, the purpose of this phenomenological qualitative study was to learn about the lived experiences of the spouses/partners of the first responders who responded within the first 12 hours to the mass shooting in Las Vegas, Nevada, during the Route 91 Harvest Festival, on October 1, 2017. Six participants (from law enforcement, firefighters, and emergency services personnel) who were current or former spouses/partners of first responders who responded within the first 12 hours of the mass shooting, as well as being a spouse/partner at the time of the shooting, were interviewed as part of this dissertation research study. The conceptual framework of Bowen's family systems theory and the theory of vicarious trauma, as posed by theorists such as Figley, Ludick, and Molnar, provided the context for themes and insights in this qualitative study. The findings support existing research through seven themes, including initial shock, secondary trauma, and resilience. Implications for social change are pronounced. First responder agencies need to understand the family dynamic of the spousal relationship. When that relationship is considered, it can lead to positive social change by stabilizing the emotional and mental strength of the first responder, which can strengthen the spousal relationship. These changes can translate into additional positive social change by making officers more resilient, which may result in communities being safer.

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## Dedication

This has been an arduous journey that could not have been traveled alone. First and foremost, I dedicate this doctorate to my husband, Robert Lynn Benson, who generously financed and supported this journey.

My dissertation chair, Dr. Barbara Palomino de Velasco, and my second committee member, Dr. Robert Meyer, guided and encouraged me all along the way. Thank you for believing in me, especially when obstacles threatened to overwhelm me. Due to Dr. Palomino de Velasco's reassignment elsewhere, Dr. Jana Price-Sharps stepped up to be my new chairperson. She immediately took the helm with kindness, carefully and expertly leading me across the finish line.

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I am who I am and what I am made of because of my parents, Larry Landsem and Nyla Otoupalik, who are thankfully still living.

Friends are those who look me square in the eye, tell me the truth, and encourage me to be brave, stand tall, and walk, even run, through the gauntlet of fire – Dianne Kane

– Jillian Smith – Dianne Westbrook – Donna Lloyd – Bobbie Nielsen – Eddy Baleria –  
Leslie Jackson – Jhenna Strasser – Brian Boxler.

My siblings and their families stood by me, cheering me onward.

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## Chapter 1: Introduction to the Study

### **Introduction**

Traumatic responses are a result of mass shooting events for victims and those who come to these victims' aid. First responders are one group subject to the effects of traumatic responses. Substance Abuse and Mental Health Services Administration (SAMHSA, 2018) published a report stating that it is imperative to protect our country and provide the services (i.e., law enforcement, firefighting, and emergency services) for that protection. Inherent in those protection services is exposure to dangerous and traumatic circumstances. For example, first responders' trauma responses are due to "exposure (direct or indirect) to death, grief, injury, pain, or loss as well as direct exposure to threats to personal safety, long hours of work, frequent shifts and longer shift hours, poor sleep, physical hardships, and other negative experiences" (SAMHSA, 2018, p. 4.). The impact on first responders' mental and physical states is varied and complex. Psychological and physical health impacts can include stress, posttraumatic stress disorder (PTSD), addiction, and suicidal ideation. With every mass shooting incident in the United States are dozens or more stories of trauma and mental heartache. This research highlights the stories of a group – first responder spouses/partners – who are often overlooked when striving to understand the overall effect of the exposure to trauma that first responders experience.

Consequently, in the context of first responders' trauma exposure that a mass shooting can incur, their spouses'/partners' stories were explored in the hopes that insight

into first responders and the impact of trauma on their relationships may be given. Rowhani-Rahbar et al. (2019) recognized that mass shooting events are a particular source of trauma because of the "unique and traumatizing" aspects of these events. Randomness and unpredictability are hallmarks of mass shootings, making it challenging to prepare and difficult to avoid a sense of helplessness. Rowhani-Rahbar et al. pointed out that these aspects make the events "far more traumatic," resulting in injury and death in otherwise healthy populations. Both first responders, their families, and the individuals experiencing the mass shooting are at risk for mental and physical reactions complicated by the randomness and varied locations of these events. Landers et al. (2020) indicated that the research suggests that first responders – in this case, law enforcement professionals – may experience the daily stress of crime and violence in various forms. The spillover from their work onto their spouses/partners could destroy the welfare of the first responders' family relationships. Landers et al. stated, "The investigations that have focused on [law enforcement] spouses and that those in close contact with the traumatized person also experience symptoms of traumatization" (p. 309).

### **Mass Shooting Facts**

While less than 1% of all gun violence in the United States are mass shootings, they garner the attention of citizens due to their seemingly random occurrence and shockingly varied locations, sometimes creating a hypervigilance to circumstances and surroundings. Researchers have argued that mass shooting events were not a unique experience only during the latter part of the 20<sup>th</sup> century onward. Sauer (2015)



acknowledged that mass shootings occurred in the late 19<sup>th</sup> century and early 20<sup>th</sup> century. For example, Sauer reported that in 1949, Howard Barton Unruh (1921-2009) went on a killing spree, killing 13 people and wounding three others because of perceived slights and threats. Because of this type of event's rarity, there was no thought of imminent danger at the time. Sauer pointed out that the United States represents only 5% of the global population but has over a third of the mass shooting events. This statistic contributed to the escalation of threat perception.

Before 1966, traditional news reporting was how information was delivered, which implied a timeframe delay before a report reached the masses (via newspapers). With technological advances in television and social media, news reports evolved to near-time reporting. With the advent of near-time media reporting, Peterson and Densley (2022) pursued a project analyzing mass shootings from 1966 onward. These researchers found many variables in the complexities of mass shooting events. Of the statistics gathered and analyzed by Peterson and Densley's project, Cowan et al. (2020) highlighted the following:

Peterson and Densley (2019) recently published an open-access database that explored all public mass shooters from 1966 to 2019 (n=171). They found that 98% of mass shooters were males with an average age of 33.74 years. These shootings claimed 1,202 lives and injured countless others. Per Brown and Goodin's (2018) research, there is a median of six fatalities per mass shooting, and for school shootings, there is an average of 10.1 fatalities per incident. Peterson

and Densley (2019) found 28.1% of mass shootings occurring since 1966 took place in the workplace, 14.1% in restaurants/bars, 12.9% in retail stores, 7.6% in schools, 6.4% in places of worship, 5.3% in universities, and 2.9% in government buildings (p. 170).

Notably, Peterson and Densley (2022) stated that no one-size-fits-all perpetrator profile exists. Even with increased mass shooting events, victims have indicated that the seemingly random nature and the varied locations of these events make for an uneasy sense of threat when out in the community. Once ordinary and perceived safe places, such as grocery stores, public events, and school activities, have become ominous. For example, Bethune and Lewan (2019) reported that 85% of women felt stressed at the possibility of a public shooting versus 71% of men.

EducationWeek (2024, January 18), an online school shooting tracker, qualified their essential work as a painful but necessary service. From their website, in 2022, there were 51 school shootings. For example, October 2022 had six shootings in California, Massachusetts, Missouri, Ohio, Virginia, and Wisconsin, the majority (five) at high schools. There was an overall total of four killed and 13 injured. The 2022 year had one school shooting that killed 21 people, of which 19 were children, and injured a further 16. This school shooting took place at Robb Elementary School in Uvalde, Texas. In the year 2022, 140 people were killed or injured in school shootings: 40 were killed (32 students and eight school employees or other adults), and 100 people were injured.

Recently, school shootings have appeared to become bolder and more violent (Bethune & Lewan, 2019). Because of the heinous nature of school shootings, 28% of parents with children under 18 years old were more likely than parents without children (16%) to constantly stress that a shooting event might happen (Bethune & Lewan, 2019).

Furthermore, Bethune and Lewan (2019) indicated that overall, 62% of parents fear that their children will become victims of a mass shooting.

It is challenging to feel prepared against these violent and inexplicable mass shootings because of the lack of a reliable shooter profile, a lack of a determined location, and a lack of logical reasoning as to why a mass shooting event occurs. Rowhani-Rahbar et al. (2019) agreed regarding these challenges and highlighted that individual responses might vary, citing that proximity to the event is one of the strongest predictors of personal outcomes.

### **Myths**

Victims of mass shootings know no race, religion, or political affiliation, and victimology is found in both the deceased and the living. Acknowledging the ambiguity of a mass shooter profile, Peterson and Densley (2022) maintained that the research is not much more explicit about victimology. Across the events from 1966 to 2022, no particular race, religion, or political affiliation seemed targeted (Peterson & Densley, 2022). Schildkraut et al. (2018) purported that the never-ending news cycle and social media communications exacerbated and promoted myths surrounding mass shootings' complexities.

Some myths included that mass shootings only occur in the United States, committed by only White males. However, mass shootings are a global phenomenon, with only half of the perpetrators being White (Peterson & Densley, 2022). Also, Columbine (in 1999) is occasionally considered the first school mass shooting. This school shooting, involving two students killing 15 in April 1999, was considered a “watershed” moment, “propel[ling] mass shootings as a phenomenon into the national discourse” (Schildkraut et al., 2018, p. 223).

However, history shows that even in schools, mass shootings have happened as far back as the late 1800s. Natalie Hazen (2022), who reported for Ranker, a secondary source website about *Unspeakable Crimes*, described school shootings before Columbine. As confirmed through newspaper accounts, those crimes reported by Hazen (2022) include the following:

- *Enoch Brown Massacre* – On July 26, 1764, four Lenape Indians entered a schoolhouse in Greencastle, Pennsylvania. They shot and scalped the teacher and at least nine children, with only two that survived. Motivations were unclear (as reported in the New Bern Sun Journal by Bill Hand on April 6, 2018).
- *St. Mary's Parochial School shooting* – On April 9, 1891, James Foster shot into a crowd of children on the playground, injuring many. Motivations were unclear (as reported by Ronald M. Holmes and Stephen T. Holmes, *Fatal*

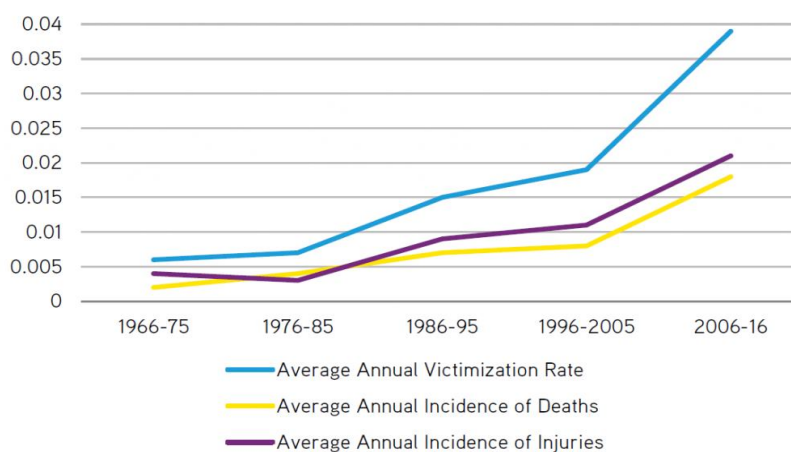
*Violence: Case Studies and Analysis of Emerging Forms* (Boca Raton, FL: CRC Press, 2012), 139.).

- *South Pasadena Junior High School shooting* – On May 6, 1940, Verlin Spencer (Principal) shot and killed three school officials and five colleagues, seriously injuring another. Spencer had had previous clashes with both faculty and school officials. Motivations surmised to be previous disciplinary actions. His system had high quantities of bromide (for headaches) (*Los Angeles Times*, May 10, 1940).

Schildkraut et al. (2018) concluded that mass shooting events were likely to be misunderstood, thus causing a lack of suitable preparation in the event of a mass shooting. One general agreement among researchers is that there is an increase in events. Figure 1 illustrates the annual event reporting of mass shootings by decade.

**Figure 1**

*Annual Event Reporting by Decade*



*Note.* From “*Can Mass Shootings Be Stopped? To Address the Problem, We Must Better*

*Understand the Phenomenon*,” by J. Schildkraut, M. K. Formica, and J. Malatras, 2018, Rockefeller Institute of Government – Policy Brief, p. 13. Reprinted with permission (see Appendix D).

However, while a simple viewing of the chart may lead one to believe that these events are increasing in frequency, this chart says nothing regarding the evolving scholarly understanding of a perpetrator profile.

### **Perpetrator Profile**

The perpetrators of mass shootings are entirely varied. Despite the ambiguity of a perpetrator profile, Peterson and Densley (2022) acknowledged four commonalities found in nearly all the shooters:

1. The shooters had early childhood trauma and exposure to violence at a young age.
2. They had an identifiable grievance or crisis point.
3. They studied the actions of past shooters and sought validation for their methods and motives.
4. They had the means to carry out the attack (History of Mass Shooters, section 4).

However, their differences are far more diverse. From The Violence Project (Peterson & Densley (2022), the following are pertinent demographics:

- The average age was 34 years old (from 10 years old to 70 years old).

- 50% were White males (other variables included less than 1% of perpetrators were female and 15% were immigrants).
- About 52% of the locations were workplaces, followed by 28% in retail establishments, with schools comprising about 11% of the sites (Peterson & Densley, 2022).

An example of how a random and chaotic killing event committed by perpetrators that did not fit the then-perpetrator profile could cause fear is as follows: In 2002, on the heels of the September 11, 2001, attacks on American soil, there occurred a seemingly random array of attacks, eventually attributed to two individuals that would cast doubt on the then thought of dynamics relative to the current beliefs of killers, motivations, gender, and race (Stein & Armitage, 31 October 2021). Though arguably considered serial killing, given that the killings were committed over 22 days, the termed Beltway Snipers gave evidence of how seemingly random acts of violence across varied locations could cause confusion and chaos (see [fbi.gov/history](https://www.fbi.gov/history), n.d.). At that time, it was assumed that most killings, in this case, serial killings, were committed by White men.

The Beltway Snipers were two males – one a 41-year-old Black male and the other a 16-year-old Black male. On the surface of these killings, it seemed that the killings were random, varied, and chaos-inspiring. Over 22 days, 10 were killed and three wounded. The violent scenes took place in Maryland, Washington D.C., and Virginia. Men, women, and one child (wounded) were among the dead and injured. The events occurred in a parking lot, driving a vehicle, getting out of a car at school, pumping gas, at

a restaurant, and driving a bus. Though the media ultimately supposed that the perpetrators were deliberately creating chaos with the ultimate goal of zeroing in on the adult's ex-wife to get back his children, there was no logical order of location or victim selection. This type of illogic causes fear, which escalates when there are no particulars one can avoid or prepare for in advance. Schildkraut et al. (2018) stated:

[T]he abundance of [media] attention has led people to overestimate their likelihood of falling victim to a similar attack...Collectively, these perceptions foster punitive attitudes, a demand for increased security and prevention, and an appeal for legislative change, despite that such attempts have been largely unsuccessful in the past. (p. 223)

Regardless of who, what, or where, mass shooting events initiate a response from the first responder agencies established to protect and serve our communities.

### **First Responders**

First responders, which include law enforcement, firefighters, and emergency services personnel, are first on the scene to assess and triage. SAMHSA (2018) concurred that first responders are the first to arrive at a mass shooting scene. Consequently, the first responders are more likely to face "challenging, dangerous, and draining situations" (SAMHSA, 2018, p. 3). They provide emotional and physical support to the victims, often in harm's way. Using the 9-11 attacks as a context, even though first responders have training for the eventuality of emergency response, the enormity and scale often found in attacks, such as mass shootings, this case, the 9-11 attacks, are usually beyond



their previous experience (Hammock et al., 2019). The size and duration of these events require much physical and emotional preparation. These mass shooting events put the first responders (as well as victims) at greater risk of mental and physical health consequences (Hammock et al., 2019). Such was the case with the Las Vegas mass shooting in 2017.

### **Las Vegas Mass Shooting**

The October 1, 2017, mass shooting in Las Vegas drew many agencies' first responders to the concert venue (Las Vegas Village) and Mandalay Bay (FEMA, 2018). The Federal Emergency Management Agency After Action Report (2018) identified nine law enforcement agencies involved in the initial response and follow-up investigations. These agencies included Las Vegas, Henderson, North Las Vegas, and Boulder City police departments. University and college police departments also assisted in providing law enforcement personnel – UNLV and CCSD. The Nevada Highway Patrol, ATF, and FBI were also involved (FEMA, 2018. p. 10).

Four fire departments responded, including Nevada Fire & Rescue and Henderson, Las Vegas, and North Las Vegas fire and rescue operations. Three private ambulance companies, Community Ambulance, AMR, and MedicWest Ambulance, assisted throughout the night in providing triage and transport to the various local hospitals (FEMA, 2018, p. 10). More than 600 personnel responded, coordinated, fielded calls, transported, or tended to the voluminous number of injured victims, too many of whom died. All told, 58 died, and over 800 were wounded, including two law

enforcement officers. This tragedy was perpetrated by a shooter with multiple weapons and ammunition, shooting into a crowd of over 22,000 people from the 32<sup>nd</sup> floor of the Mandalay Resort Hotel in 10 minutes. The shooter took his own life at the end of the time frame (FEMA, 2018, p. 1).

### **Psychological Fallout**

Beyond injury and death, the ongoing psychological fallout of mass shootings includes PTSD, relationship challenges, and fear. Hammock et al. (2019) reported that the mental and physical impact of mass shootings is typically less among first responders than the general public or community to whom the mass shooting occurred. The percentage of first responders reporting adverse effects was approximately 5%-14% compared with 23% of the general public (Hammock et al., 2019). Hammock et al. proposed that previous disaster training provided a sense of preparation for this difference. Still, the perceived stigma associated with asking for help may have lowered the actual reporting of symptomology. When reported, diagnosed, or treated, symptoms may include anxiety, depression, and PTSD (i.e., exaggerated startle response and nightmares along with anxiety and depression; Lambert et al., 2012). These symptoms may last long after the initial traumatic event, even to the point of managing these effects so one can return to investing in their relationships and working life.

It is not only the first responders that experience these effects but their spouses/partners and beyond to other significant relationships. Sharp et al. (2022), while underscoring the research regarding the impact of work-related trauma upon the first

responders, stated that there is less known about the effects on their spouses/partners. The authors pointed out that it is reasonable to expect similar reactions to the trauma experienced by their first responder, given that intimate relationships often mirror the symptomology of one's trauma responses.

### **Background of the Problem**

The general problem, if left unaddressed, is that traumatic responses to mass shootings can permeate outward, not simply impacting the first responder but also their family. Morman et al. (2020) identified this permeating as a *crossover effect* (p. 1093). While initially having a lower percentage of mental health responses reported by Hammock et al. (2019), Morman et al. warned about the consequences of not addressing these impacts among first responders. Avoidance of identification and care against these consequences, the crossover effects bleed into their relationships, often diminishing marital satisfaction. This crossover effect is exacerbated by not being able to separate a first responders' job from their relationships. Porter and Henriksen (2016) further stressed that because of the high levels of job danger and stress, there are often lowered levels of marital satisfaction and a vague sense of loss because of the first responders' dichotomy between work and home. The authors suggested that first responders' spouses (or partners) have much to contribute to understanding the dynamics of work and family and can be a source of research that has not been pursued previously.

SAMHSA (2018, May) alerts first responders to post-event mental health challenges and post-event life events such as divorce or relationship break-ups.

SAMHSA shares pertinent research that suggests that mental health challenges and relationship disruptions are associated with “distress, depression, and PTSD” (p. 9).

Sharp et al. (2022) stated the following statistics:

A US study of police families from 2000 Census data found that divorce/separation rates were lower than the US national average (14.47% v 16.96%), as well as lower than the rate expected given the demographic and income characteristics of the law enforcement workers (14.47% v 16.35%).

Tuttle et al. (2018) acknowledged that the “interplay between work and family stress can pile up to impact family functioning” (p. 247). The authors identified that there are significant concerns involving “communication, emotional regulations, and day-to-day family activities” having been reported by spouses/partners. Waddell et al. (2020) stated that little is known about the impact of first responder trauma on marital relationships. They were surprised this was so, given the number of studies that suggest social support as a protective factor. In addressing their query, “Why do you stay?” Waddell et al. argued that without further research on spouses'/partners' reactions to their first responders' trauma, it “prevents the development of strategies and interventions that can address and relate to actual support requirements” (p. 1735). Furthermore, Waddell et al. stated that the repetitive nature of first responders' work environment and the real possibility of trauma-inducing events could complicate relationship intimacy, citing intimacy as a “critically important aspect of protecting the family unit” (p. 1740). The authors concluded that “early education and information about PTSD and strategies for

managing its impacts on their lives” was critical (Waddell et al., 2020, p. 1740). The research participants desired access to “appropriate and supportive treatment for their partner” and having the proper tools for managing and coping with the inherent difficulties in first-responder relationships (Waddell et al., 2020, p. 1740).

To try to dispel the perceived myth that divorce rates among first responders were higher than the general population, Pennington et al. (2022) set about to thoroughly research this possible phenomenon, using firefighters as their sample and identified the popular press as suggesting that “firefighters have a higher divorce rate than the general population” (p. 1618). The authors further argued that inflated claims of upward to “75-90% of police officers and firefighters divorce due to stress” have been reported on popular television platforms (Pennington et al., 2022, p. 1618). These “unfounded statements” can be a disservice to first responders and their spouses, “[asserting] that such stereotypes may lead [them] to believe these relationships are likely to fail or lead to stigma against the fire service profession, deterring individuals from this career path” (Pennington et al., 2022, p. 1618).

### **Family Systems and Vicarious Trauma**

A family system is the total family behavior externally and internally. For a broader and more in-depth research effort, a theory or theories are used to create a lens through which what is known is identified, the epistemological scope is argued, and which methodology is best used for analysis (Collins & Stockton, 2018). Understanding the effects of the first responders' jobs and coping strategies on their marital relationships,

Bowen's family systems theory helps identify the family systems that lead to possible outcomes in the marriage relationship. Bowen originated the family systems theory to integrate the current understanding and research of humans with that of families (The Bowen Center for the Study of the Family, 2021).

Eight integral concepts are the undergirding of the family systems theory:

1. *Triangles* is a third entity (i.e., children) or outside influence upon the marital relationship.
2. *Differentiation of self* is the less developed the identity of self, the more impact others within the system have on that individual.
3. *Nuclear family emotional process* is the marital conflict, dysfunction of a spouse, impairment of one or more children, and emotional distance all contribute to the functioning of the family system.
4. *Family projection process* is a process that includes three steps: scanning, diagnosing, and treating a child within the family.
5. *Multigenerational transmission process* differentiates between parents and children and can lead to succeeding generations experiencing a more significant impact from these differentiations.
6. *Emotional cutoff* is how unresolved emotional issues are handled.
7. *Sibling position* is how position in the family has commonalities between families.

8. *Societal emotional process* is the emotional systems governing whole societies. (The Bowen Center for the Study of the Family, Learn about Bowen Theory, p.1)

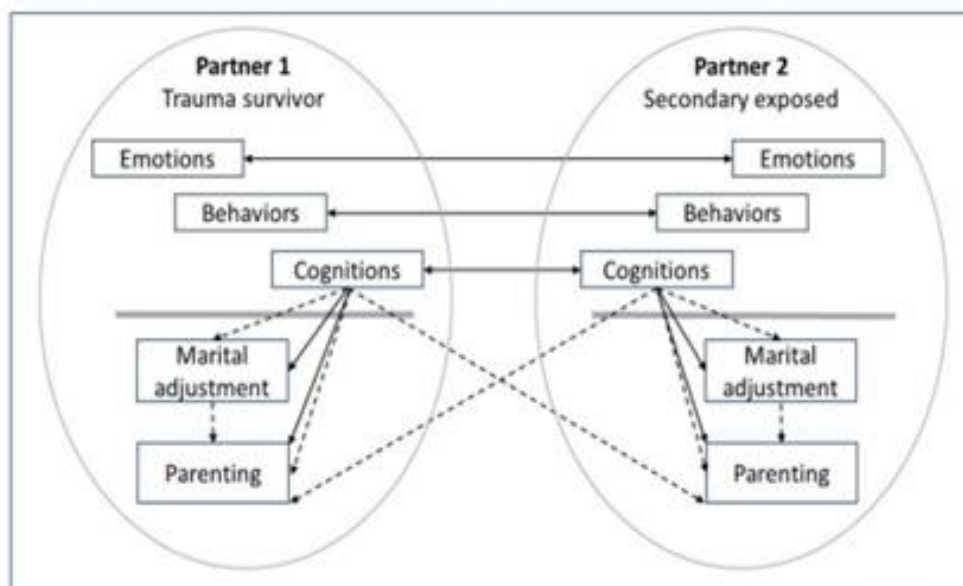
A complementary theory is trauma theory, more specifically, vicarious trauma.

Vicarious trauma theorizes that humans are social beings with many social skills required to get along (Ludick & Figley, 2017). Consequently, the more intimate a relationship, the greater the likelihood of being traumatized when a partner is a trauma survivor. This theory, coupled with the Bowen family system theory, provides insight and awareness into the driving forces of first responders and their spouses in the context of trauma, especially mass shootings.

Likewise, Bachem et al. (2021) found that traumatic events experienced by one member of a family (i.e., a first responder) have synchronous effects on the intrapersonal, interpersonal, and interrelational aspects. Therefore, work and family conflicts may result in lower world assumptions (WA) and marital satisfaction. Bachem et al. described WA as “cognitive schemas concerning an individual’s views of themselves, the world, and others,” warning that trauma can negatively distort WA (p. 149). Once again, WA's impact on family relationships has been largely unstudied. Bachem et al. showed the cognitive and behavioral influences on interpersonal relationships in Figure 2.

**Figure 2**

*Systemic Cognitive-Behavioral Interpersonal Model of Posttraumatic Stress Disorder*



*Note.* From “Families in the Shadow of Traumatic Experiences: Negative World Assumptions and Family Relationships,” by R. Bachem, Y. Levin, J. Y. Stein, and Z. Solomon, 2021, *Journal of Traumatic Stress*, 34, p. 151

(<https://doi.org/10.1002/jts.22603>). Reprinted with permission (see Appendix D).

The figure illustrates that interactions between trauma survivors and their spouses/partners are inextricably connected. Brimhall et al. (2019) described research findings that work and family are inevitably connected where nuances from work spill over to the family and vice versa. For example, in exploring law enforcement families, Brimhall et al. found that communication was such that the male in the relationship often suppressed their emotions rather than sharing them. The women/wives saw this



repression as one of the most common communication strategies affecting their relationship. On the contrary, the men/officers viewed this strategy as a means of protecting their spouses from the often devastating effects of their job experiences. Brimhall et al. pointed out that communication is bi-directional, with both parties affecting one another.

### **Trauma Effects**

Trauma has a profound impact on individuals. Moreover, the effects of that trauma rarely, if ever, occur in a vacuum. Traumatic effects can include anxiety, depression, sleep disturbances, and exaggerated startle responses – all of which can become operational aspects of individuals' PTSD (May & Wisco, 2016). The Diagnostic Statistical Manual – V (American Psychiatric Association, 2013) defined PTSD and breaks down exposure to trauma into one of two areas: directly experiencing the trauma or witnessing another experiencing the trauma (p. 271). Notably, the DSM-5 does not include media exposure as a diagnostic criterion. The effects, if ignored, can have a cumulative and devastating impact. As identified among the criteria, these effects can include “intrusive distressing memories,” “dissociative reactions,” avoidance of places, changes in mood, hypervigilance, sleep issues, and so forth (American Psychiatric Association, 2013, pp. 271-272).

Regarding first responders, McKeon et al. (2019) pointed out that recent research surmised that 33.1% experienced the perceived stigma of seeking help for their mental health concerns. Encountering stigma may “[endorse] concerns [that their] fears [of]

seeking psychological help would negatively impact one's career," especially where confidentiality is concerned (McKeon et al., 2019, p. 2). Once again, trauma impact does not happen in isolation; for first responders, careful attention must be given to the effects on their relationships and families.

Trauma can have a reverberating effect on an entire family system. Therefore, understanding family systems theory provides insight into the cause and effect of trauma impact reverberating from the individual outward to his personal and professional relationships. An interesting phenomenon some traumatized individuals may engage in that further impacts others beyond that of the individual is called *reenactment*. The behaviors often associated with reenactment may be characterized by self-injury, hypersexuality, driving recklessly, and other high-risk behaviors (Levy, 1998). Reenactment can become an attempt to *cope* with or *master* an individual's traumatic experience, sometimes leading to a *maladaptive* way of coping (Levy, 1998).

### **Challenges**

First responders experiencing trauma may find further challenges within their own families. Morman et al. (2020) characterized these challenges as the effects of a decisive crossover of work-related stress or trauma onto the family. The researchers found that as job stress increased, marital satisfaction decreased. Pooley and Turns (2022) concurred by identifying "shiftwork, overtime, burnout, hypervigilance, and repeated trauma" as factors contributing to increased marital and family difficulties (p. 176).

Sharp et al. (2022) described that such challenges included a feeling of concern by the spouse for the first responders' safety and worry about the negative impact of the first responders' job stress on marital communication and family mental health outcomes. The authors stressed that resiliency may result from solid social support sans the stigma of mental health challenges. Galovski et al. (2018) found that “higher income and social support” were consistent protective factors, while past trauma history could be considered a significant risk factor. Such protective factors lend themselves to a highly desired ability to be resilient. Galovski et al. concluded that understanding the role of protective and risk factors will lend itself to a better allocation of resources and the most suitable aid type.

First responders who have experienced a mass shooting are particularly challenged. Researchers do not argue that trauma comes in various settings and experiences. However, mass shootings present a unique and often devastating set of challenges—Wilson (2014) distinguished mass shootings from, for example, natural disasters. The victim selection appeared more indiscriminate, with the event having more "severe and long-lasting consequences than accidents or natural disasters" (Wilson, 2014, p. 632). Wilson used the dose-response theory – the greater the dosage or proximity and time exposure, the more remarkable an impact – to comprehend the strength of the symptomology in response to trauma. However, Wilson discovered that even the dose-response theory did not adequately provide enough information regarding the effects of a trauma-fraught event, such as a mass shooting. Given that first responders are often the

first line of defense in a mass shooting event, it becomes necessary to be aware of the traumatic effects this devastating occurrence can have on these first responders.

Greinacher et al. (2019) cautioned that first responders, subject to these higher-than-usual stress-inducing events (i.e., mass shootings), can be physically, emotionally, and mentally overwhelmed.

Therefore, with the first responders generally on the scene first, they often experience the chaotic and confusing initial fallout of the mass shooting. Smart and Schell (2021) pinpointed the rarity of a mass shooting event as making it very difficult to prepare oneself and one's organization specifically. Thus, having arrived first at the scene, first responders relied on their training and hoped their intuition and experience would help alleviate the distress of confusion. Furthermore, Crowe et al. (2017) attributed positive coping styles, dependable social support, and social ties to others (especially family) as having contributed to resilience – a positive adaptation and endurance during life's hardships. Also, Guenette (2019) agreed that “a strong support network is critical” in maintaining good mental health, which in turn helps carry the first responder through difficult and sometimes devastating circumstances. Guenette recognized that the spouses/partners are uniquely positioned to notice warning signs of physical, mental, or emotional nuances that may suggest a struggle with mental health balance and stability.

### **First Responder Spouses**

The spouses of first responders face a unique type of secondary trauma. Consequently, while a positive or strong social network found in a family, especially

from the spouse (or partner), is an essential component of the resilience of first responders, a spouse is subject to vicarious or secondary trauma. Porter and Henriksen (2016), though grateful that research has accelerated surrounding first responders, their professional challenges, and their mental health concerns, found that there was insufficient research regarding the spouses of these first responders. The authors found that this overlooked population – spouses – would offer insight into the complexities and diversities related to first responders.

Casas and Benuto (2022) recently reiterated Porter and Henriksen's (2016) concerns. Despite the research identifying the cumulative and repetitive nature of a first responder's occupation, little research has been conducted to explore the impact of these occupations on spouses and their families. The existing literature focuses primarily on family support's impact on first responders' overall well-being, argued Casas and Benuto. The authors encouraged further research into *how* first responders' work affects family members, particularly spouses.

Lowery and Cassidy (2022) also substantiated the positive or negative impact of a married relationship between communication and support on the ability of first responders to well-being. Furthermore, Lowery and Cassidy believed that a first responder's well-being is directly linked to health outcomes. The authors concluded that self-compassion, empathy, spousal support, and physical activity combined to help increase resilience. Sharp et al. (2022) further demonstrated through their literature review that there continued to be a lack of research surrounding the spousal connection.

However, their findings substantiated what is known; for example, spouses are concerned about the safety of their first responders. First responders' mental health impacted the family system, according to spousal input. Sharp et al. found that being supportive helped first responders and their spouses mitigate the effects of trauma.

Throughout the years of studying the job impacts on first responders, it remains a constant acceptance that such jobs are emotionally and physically draining. For example, Roberts et al. (2013) identified potential threats to one's cognition and emotional regulation, such as withdrawing or desiring to shield one's spouse/partner from the negative aspects of their job (i.e., law enforcement), which in turn is isolating and adds to their stress levels. Roberts et al. explained, "Despite officers' best efforts to prevent police work from affecting their marriage, their spouses likely are affected, as partners' stress and emotions are closely linked" (p. 272). More recently, Sharp et al. (2022) found similar concerns as the nature and stress of a first responder job have not changed much over the years. Through an extensive literature search, Sharp et al. identified that about a quarter of partners (24%) and their law enforcement spouses, for example, experienced "psychological distress" because of their relationship. Conversely, the authors underscored the importance of marital relationships as needing a "secure attachment" between the parties, achieved by effective mutual communication.

### **Secondary Traumatization**

Regarding understanding trauma and secondary trauma, Horman and Vivian (2005) applauded Charles Figley's efforts in developing and describing vicarious trauma

beginning in the 1980s. The development of secondary traumatization has been ongoing since the 1980s, with Figley at the forefront. Figley (1995) stated at the onset that there is a cost to caring and that traumatization occurs “either directly or indirectly” (p. 4). In 2017, Figley and Ludick again stressed that compassion comprises a deep concern for another and a desire to relieve another’s suffering (Figley & Ludick, 2017).

In turn, stress presents a demand for action to be relieved. Thus, in an intimate relationship, this demand is often imposed on one and can lead to secondary traumatization of the one trying to provide relief in response to their partner’s trauma effects. It is important to note that though secondary traumatization as a concept and a theory began many decades ago, its definition and aspects are still viable and relevant today. Ludick and Figley (2017) continued refining academic and professional understanding of compassion, compassion fatigue, and compassion resilience, charging that empathy is a critical component in existing intimate relationships. Empathy leads to resilience in the face of hardships and trauma (see Figure 3). Consequently, while focusing on families and friends, these early works developed the concept of secondary traumatization, defined as the cumulative effect of trauma exposure shared by an individual within an intimate setting, such as a therapeutic or marital relationship (Bercier & Maynard, 2015). The construct of vicarious trauma helps explain the nuances experienced within a marital setting.

The spouses of first responders, having experienced a mass shooting, may face a unique secondary trauma. Wilson (2015) queried if there was a difference in PTSD

prevalence among first responders working in a natural or accidental disaster versus manmade mass violence. She was surprised to learn, while conducting a literature review, that there were only 20 articles that spoke to a possible answer to her question. Wilson suggested that first responder PTSD understanding was based on limited research. Wilson also found that the research intimated that around 1.3% to 13.3% of first responders developed PTSD. However, among the seven incidents found in Wilson's research (one of which was the 9-11 terrorist attack), the 9-11 attack was on a large scale where the responders personally knew many of the 300 plus first responders who died. Thus, the 9-11 attack's statistics regarding first responders may skew the prevalence of the first responder PTSD found in smaller events, especially when many of the victims are strangers to the first responders.

More recently, McDonald et al. (2021) further confirmed that first responders are involved in traumatic events on average every six months. This exposure can lend itself to a cumulative effect of stressors, increasing the “risk of experiencing psychological consequences, such as posttraumatic stress disorder” (McDonald et al., 2021, p. 34). Furthermore, in line with previous research, McDonald et al. insisted that “identifying factors that protect mental health” remains a critical need so that there will be the necessary understanding of how to improve psychological resilience” (p. 34). Similarly, with continued insight into the aspects of the job that first responders may traumatically react to, that same understanding can be applied to the spouses/partners of those first responders. Morman et al. (2020) found that the “crossover effect” is typical from the



first responder's job stress into their intimate relationships, which have "clear implications...for [first responders] who often have difficulty separating the stress of their work from their personal relationships" (p. 1093).

Once again, are traumatic responses – secondary traumatization – to be found among the spouses of first responders as to incidences of vicarious trauma prevalence? Wheater and Erasmus (2017) argued that the marital relationship did not provide a buffer from being a stranger, for being a stranger does not come with intimacy nor the need for a stable, supportive relationship. Emotional and physical intimacy increases the likelihood of secondary or vicarious trauma among spouses due to the overlapping nature of the marital relationship, affecting the family system. Therefore, with the ubiquity of mental health impacts, especially PTSD among first responders, Wheater and Erasmus contended that challenges arise. When there is disclosure to the spouse, along with mental health challenges suffered by first responders, secondary trauma experienced by spouses can result in "alterations in an individual's sense of self-efficacy, a depletion of personal resources, and disruptions in an individual's perceptions of safety" (Wheater & Erasmus, 2017, p. 470).

The problem becomes that unless researchers learn more about the experiences of spouses of first responders who have been traumatized by mass shootings, the spouses of such first responders will continue to be the recipients of secondary trauma from their first responder spouses. Figley and Ludick (2017) reimagined a compassion fatigue and resilience model that explained the secondary traumatization stresses experienced by

professionals who work with traumatized clients. The authors recognized that family members of those traumatized may also experience symptomology similar to PTSD. Figley and Ludick described the permeating effects between the traumatized and their family members as a virus. The authors substantiated the research that "families can both breed and ameliorate stress among their members and that PTSD spreads in the family like a virus unless families have effective ways to cope" (p. 576).

Other researchers, such as Brimhall et al. (2019), also pointed out spouses' difficulties in acknowledging and supporting their first responders. They conceded concern that a substantive support system depended on the quality of the marital attachment, constructive communication patterns, and an understanding of gender-specific styles of functioning (i.e., males socialized towards self-reliance and females toward nurturing and emotional closeness). Alritz et al. (2020) substantiated Figley's initial declaration in 1985 that the family is the anecdote to the impact of the challenges experienced by first responders as helping mitigate the severity of PTSD. As stated earlier, Figley has been instrumental in understanding the various nuances of secondary traumatization. He continued his research and development from the early 1980s to the early decades of the 21<sup>st</sup> century. As mentioned in Figure 3, Figley and Ludick developed a compassion fatigue/resilience model based on continued research that has significantly enhanced the understanding and response to secondary traumatization (Ludick & Figley, 2017).

In addition to understanding the importance of family and marital relationships, Alrutz et al. (2020) encouraged first responder agencies to provide training and assistance that include and support family dynamics. Not only does marital and family support help ameliorate first responder PTSD severity, but the reverse remains essential – first responder and familial support by their agencies help to mitigate the potential grimness of familial relationship ruin.

### **Statement of the Problem**

There has been limited research regarding spouses of first responders. Even with the concerns and cautions researchers offer, there is little research on the marital relationship dynamic that impacts the first responder's resilience or lack thereof. For example, Regehr (2005), Porter and Henriksen (2016), and Rennebohm et al. (2023) all agreed that the spillover effect of the first responder's work affects the family system, specifically the marital relationship. Further research is needed, as Porter and Henriksen (2016) pointed out, regarding this often-overlooked group – the spouses. Rennebohm et al. (2023) agreed with the other researchers that there appears to be an inverse behavior effect between the first responder and the spouse as perceived difficulties and stresses increase from work and marital satisfaction decreases. More research is warranted to clarify the entire first responder/marital relationship picture, bolstering the proposed interventions' effectiveness. Rennebohm et al. theorized that the quality of first responder coping strategies and subsequently developed therapeutic models will help understand the potential strain on the marital relationship.

Scholars have agreed that the spouses of first responders continue to be an overlooked population, as Porter and Henriksen (2016) suggested, who were among the first to delve into the spousal experience of first responder work and spillover. The authors, acknowledging a dearth of research in the arena of first responder spouses, sought to expand the understanding of the spousal connection. Porter and Henriksen identified common themes among the first responder spouses. For example, safety was a concern spouses had, hoping that the interdependence of the various first responders complimented and supported each other during an incident. Spouses consistently felt pride, and even though the job inherently was dangerous, the spouses felt pride in how their first responders contributed to the safety and strength of the community. This pride lent itself to promoting a sense of identity as a first responder family. Porter and Henriksen also identified the family stresses that may be in common with the general population, such as finances and its potential source of stress. Once again, Porter and Henriksen emphasized the importance of continued research to either substantiate research findings or add to the current level of understanding. Supporting these findings, Pooley and Turns (2022) extensively researched the impact of first responders' jobs on the family systems using law enforcement families as their target group. The authors concurred that little is known and understood relative to the spouses/partners and that "there appears to be a lack of systemic interventions and literature related to assisting LEO marriages and families" (p. 179). Likewise, Rennebohm et al. (2023) acknowledged that attempts had been made in research to understand better the dynamics in the marital

relationship of first responders. Their study “provide[s] support for the inverse relationship between PTS symptoms and perceived relationship quality among first responders” (Rennebohm et al., 2023, p. 6).

Researchers want further research into the lived experiences of first responder spouses to gain insight into the dynamics beyond the job that a first responder encounters. With this understanding, Waddell et al. (2020) asserted that this lack of research "prevents the development of strategies and interventions that can address and relate to actual support requirements" (p. 1735). Specifically, Waddell et al. suggested that findings would assist first responder agencies in developing and providing education and peer support.

Krshtriya et al. (2020) proposed that adapting existing programs to the needs of first responders and their families be pursued as more research substantiates or brings new insight to the forefront:

One example of such a program is families overcoming under stress, a strength-based family-centered resiliency training program that has been associated with sustained reductions in psychological symptoms among parents and children as well as improvements in family communication, closeness, and support. The program was developed for families facing a range of stressful situations and has since been adapted and implemented for specific populations, including first responders and their families in New Orleans following Hurricane Katrina. (p. 2261)

Accordingly, researchers have recommended further research regarding (a) the spousal connection to first responder well-being, (b) the development of educational training and support, and (c) determining if existing agency programs can be adjusted to meet relevant needs of first responders and their families, to name a few research directions (Krshtriya et al., 2020; Porter & Henriksen, 2016; Waddell et al., 2020).

### **Purpose Statement**

In this phenomenological research, I aimed to gather and understand the first responder spouses' lived experiences incident to the October 1, 2017, Las Vegas mass shooting.

### **Research Question**

This research was driven by one primary research question: What are the lived experiences of the spouses (or partners) of the first responders on duty on October 1, 2017, who responded to the Las Vegas mass shooting that occurred on the final night of the Route 91 Harvest Festival?

This research question is supported by the following sub-questions:

How did the spouse first hear about the mass shooting?

How long before the spouse heard from their first responder?

What happened in the subsequent days, weeks, and months?

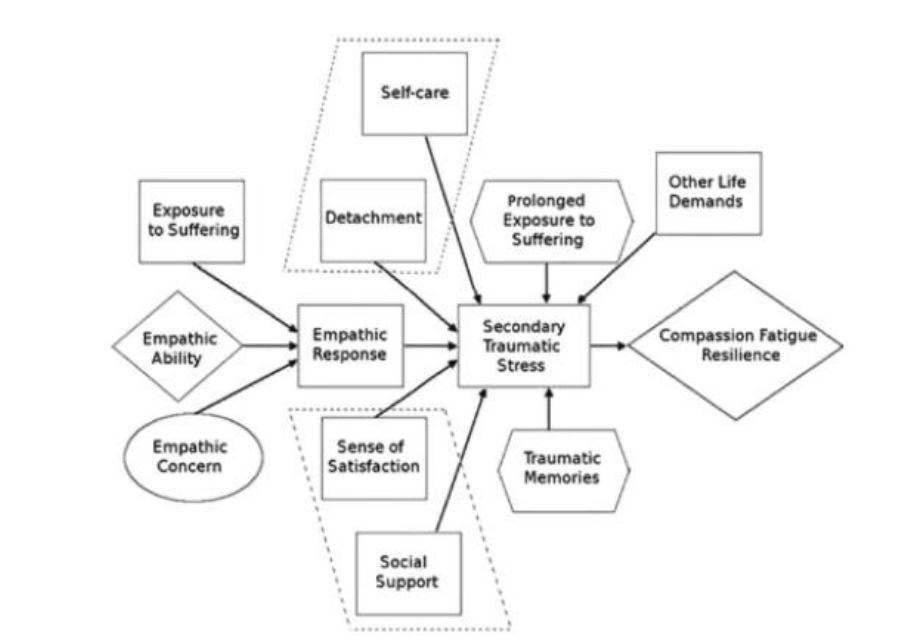
What services were used by the first responder and their families for healing?

How are the couples doing now, five years later?

### **Conceptual Framework**

Bowen's family systems theory describes the family communication dynamics and what factors strengthen or weaken their interactions. Vicarious trauma theory, first labeled as such by Figley, describes symptomology similar to PTSD experienced by one in an intimate relationship with a traumatized individual. Traumatic disclosure can cause the marital relationship to suffer or to be strengthened. Bowen family systems theory utilizes systems thinking that describes the family and its relationships as emotionally interdependent and derives insight into the complex nature of the family. As previously described, the theory has eight components: (a) triangles, (b) differentiation of self, (c) nuclear family emotional process, (d) family projection process, (e) multigenerational transmission process, (f) emotional cutoff, (g) sibling position, and (h) societal emotional process (see The Bowen Center for the Study of the Family, n.d., Learn about Bowen Theory).

Vicarious trauma is indirect exposure to trauma or a traumatized individual (Molnar et al., 2017). Ludick and Figley (2017) showed a more current compassion resilience model (see Figure 3) based on the active research of Figley since he began intense research into vicarious trauma, starting in the 1980s and 1990s.

**Figure 3***Compassion Resilience Model*

*Note.* From “Toward a Mechanism for Secondary Trauma Induction and Reduction: Reimagining a Theory of Secondary Traumatic Stress,” by M. Ludick and C. R. Figley, 2017, *Traumatology*, 23(1), p. 114, (<https://doi.org/10.1037/trm0000096>). Copyright © 2016 by the American Psychology Association. Reprinted with permission (see Appendix D).

In addition to the constructs of empathic ability supporting the context of responses (e.g., detachment, sense of satisfaction) shown by Ludick and Figley (2017), Molnar et al. (2017) included new constructs such as the processes of the change in



worldview and a continuum of affective and behavioral responses, such as vicarious traumatization, resilience, and transformational growth.

As illustrated by Figure 3, empathic ability leads to an empathic response, leading to secondary traumatic stress and compassion fatigue resilience. Ludick and Figley (2017) developed the model to be used as a tool to either see “who is at risk for excessive STS [secondary traumatic stress] or to cultivate desirable levels of CFR [compassion fatigue resilience]” (p. 113). Furthermore, in addition to looking at the model as a whole, the authors encouraged looking separately at the three sectors: the empathic stance, the secondary traumatic stress sector, and the compassion fatigue resilience sector. Doing so will help identify protective factors and help mitigate adverse outcomes through education and other derived solutions, both personally and professionally. Ludick and Figley concluded that the cost of caring, coined by Figley in 1995, needs to be “contained.” The CFR model seeks to provide a platform, suggesting the occurrence of “social support, compassion satisfaction, and the kind of spontaneous support that gathers around us naturally in times of need” to predict CFR (Ludick & Figley, 2017, p. 119).

As previously mentioned, Molnar et al. (2017) posed another model to explain vicarious trauma, arguing that both negative and positive outcomes can derive from a traumatic experience. The traumatic experience impacts one’s worldview and spawns a variety of affective and behavioral responses, leading to either a positive or negative outcome (not mutually exclusive). The authors highlight that direct exposure to trauma and its effects are primarily measured through PTSD instruments. Molnar et al.

encouraged further research into not only direct exposure but secondary exposure as well – “separate screening tools for STS/VT/CF will be useful for understanding the separate and combined effects of STS/VT/CF and primary trauma” (p. 132).

Accordingly, both Molnar et al. (2017) and Ludick and Figley (2017) identified necessary steps toward understanding vicarious trauma and compassion fatigue/resilience in individuals: (a) understanding the problem, (b) identifying risk and protective factors leading to negative or positive reactions, and (c) intervention development and monitoring (see Molnar et al., 2017, p. 137). A mindful understanding of these steps and use of these frameworks will serve to understand how first responder spouses also react and live to secondary traumatization, as well as provide context and awareness of the intricacies of the first responder and spousal connections that occurred on October 1, 2017, and onward.

### **Nature of the Study**

This study, which examined the spouses of first responders involved in the October 1, 2017, Las Vegas mass shooting, employed a qualitative phenomenological approach. I interviewed six participants: two law enforcement spouses, two firefighter spouses, and two emergency services personnel spouses. During these interviews, I asked open-ended questions to explore the lived experience of the spouses/partners of first responders in the Las Vegas mass shooting. Afterward, I transcribed and coded to determine themes and patterns that may be similar to others' experiences or unique to themselves.

### **Role of the Researcher**

I am a resident of Las Vegas, Nevada, working for law enforcement. My law enforcement connections are encapsulated with friends, family, and current work status. First responders are members of my friends and family, from working in emergency rooms of hospitals, policing the streets, or investigative detectives. I am currently employed at the Las Vegas Metropolitan Police Department as a member of the Southern Nevada Human Trafficking Task Force. Regarding the Las Vegas mass shooting, I was a city resident. At that time, my son-in-law was on duty in the emergency room of a local hospital. Their hospital received overflow patients from the shooting. He was not allowed to go home at his regularly scheduled time. He was heavily involved in triage and death notices. I do not have ongoing mental health needs related to this incident. However, there is a general sense of hypervigilance in situations involving large crowds.

### **Definitions**

To identify the cost of caring, Figley first explored the secondary traumatization of individuals in both professionally and personally intimate relationships. Figley and Ludick (2017) referred back to when Figley originally, decades previously, defined the various terms that nuanced the primary term of *vicarious trauma*. Branson (2019), following up on Figley's work, described these aspects of vicarious trauma. Branson agreed with the common usage of vicarious trauma as the accumulative effect of witnessing another's trauma story. According to Branson, many terms describe the different aspects of the vicarious trauma phenomenon. Branson supports the

operationalization of terminology so that clear and concise meanings are implied when using the terms.

*Burnout*: Associated with the workplace and reactions to a poor working environment (Branson, 2019, p.3).

*Compassion fatigue*: Considered interchangeable with secondary traumatic stress, this term is most often used to describe a loved one's potential reaction when they are "overwhelmed by their observations and desire to provide aide" (Branson, 2019, p. 3).

*Countertransference*: Refers to a clinician's inner emotional reaction (Branson, 2019, p. 4).

*Emotional contagion*: A "mimicry and imitation," reflecting the human tendency to reflect the emotions of the traumatized individual (Branson, 2019, p. 4).

*PTSD*: A "diagnosis involving psychological anxiety resulting from exposure to threat via first-hand victimization, witness to threat, being overwhelmed by the knowledge of a loved one's trauma, or extreme repeated exposure to details of trauma" (Branson, 2019, p. 4).

*Shared trauma and double exposure*: When both the clinician and the traumatized individual have "experienced similar traumatic events within their lifetime" (Branson, 2019, p. 4).

*STS*: Though referred most often by clinicians, the psychological distress comes from striving to support and comfort traumatized individuals (Branson, 2019, p. 3).

*Traumatic countertransference*: Describes the movement from helpful clinician to pathological rescuer (Branson, 2019, p. 4).

Using the terminology as intended by their definitions will enhance research studies by clarifying intent, description, and results.

### **Assumptions**

This study operated under the following assumptions:

1. The remarks of the participants are trusted as true but verified through comparison with one another.
2. Participants' experiences are subjective but offer some clues for objective understanding.
3. All participant comments are regarded as "personal voice," "value-laden," and "biased" (Creswell, 1994, p. 9).

### **Scope and Delimitations**

This study explored the lived experience of the spouses (or partners) of first responders on duty on the night of the October 1, 2017, Las Vegas mass shooting. The scope implied how long it would take to reach saturation (see Morse, 2000).

Delimitations implied the boundaries affixed in exploring this topic. I interviewed only those spouses/partners of first responders who worked the night of the mass shooting.

Due to research time and constraints for a dissertation process, Morse (2000) indicated that the nature of phenomenological interviewing – with specific questions and follow-up – can help achieve saturation with a limited number of participants. Morse further

suggested that saturation could be achieved with six to 10 participants, given the potential of repeated interviews.

### **Limitations**

The limitations inherent in a phenomenological study are the interviewing aspect with a limited number of participants. The ontological (nature of being) and axiological (value, worth) assumptions indicated the subjective nature of experience and insight. These assumptions can make it difficult to ascribe set expertise to all who call themselves first responder spouses (or partners).

### **Significance**

In this study, I aimed to discover how first responders and their spouses reacted to the October 1, 2017, Las Vegas mass shooting and functioned in the aftermath. The findings are better suited for the Las Vegas Valley first responder agencies, helping them to tailor the employee programs to include their families and access to resources. Overall, the findings add to the existing body of literature that acknowledges the spouses/partners of first responders, their unique experiences, and their influence on their first responders' physical and mental health.

### **Summary**

Two years after the Las Vegas mass shooting, I had lunch with a friend from my grandchildren's PTA. She asked me about my schooling and what I was considering for a dissertation topic. I mentioned my interest in the Las Vegas mass shooting but did not know which tact would be pursued. She looked intently into my eyes and asked that I

would consider the spouses of the first responders who responded that fateful night. "We need help!" she exclaimed. From that moment on, I worked on crafting a premise and prospectus that could look into this often-ignored population (see Porter & Henriksen, 2016).

A qualitative phenomenological study was implemented to ascertain the lived experiences of the first responder spouses/partners of those who worked the night of the October 1, 2017, Las Vegas mass shooting and during the subsequent aftermath. I expected that the themes and patterns divulged by these spouses/partners would echo the suppositions that family dynamics and interactions, both overt and hidden, contribute to vicarious trauma for the spouse/partner. The study also revealed the resilient experiences of the spouse/partner in response to protective factors existing within the couple dynamic. I hoped gathering more insight into spouses'/partners' experiences as intimate partners with their first responders could proffer information. That information may be needed to enhance a first responder's life experience and allow for the development of resources that both the first responder and their spouse/partner can utilize to understand and help their relationship.

## Chapter 2: Literature Review

The night of October 1, 2017, changed the life trajectory of hundreds of people when a lone gunman shot into a dense crowd of concertgoers from the 32<sup>nd</sup> floor of the Mandalay Bay Hotel in Las Vegas, Nevada (Federal Emergency Management Agency, 2018). At the time, the Las Vegas mass shooting was the worst in recorded United States history (Beydoun, 2018). From this event were complex layers of victims – physically and emotionally devastated. The first layer of victims was the entire crowd, confused as the bullets rained down. The second layer was the people shot. The third layer of victims became the heroes, without regard for their safety, who did their best to save those around them. From that point, becoming a victim was exponentially exacerbated – first responders, hospital personnel, and Las Vegas residents.

Without argument, mass shootings are increasing in number and impact (Karaffa et al., 2015). Furthermore, the literature has become better at researching and recognizing the effects of trauma, such as mass shootings, on first responders (Webber et al., 2017). Karaffa et al. (2015) and Porter and Henriksen (2016) identified spouses or significant others of first responders as an often-overlooked category of suffering, whether it be struggling with the first responders' careers or the consequences experienced from singular traumatic events.

Therefore, this literature review explores vicarious trauma, its history, and its impact on first responders and their spouses/partners. Also, I aimed to investigate mass shootings – one of the most egregious events that illicit traumatic response – and their



history leading up to the 2017 Las Vegas mass shooting. In the context of vicarious trauma and mass shootings, it is supposed that the Las Vegas mass shooting event's impact on the spouses/partners of the first responders will be better acknowledged and understood.

## **Search Strategy**

### **Library Search and Keywords**

After carefully drafting an outline for the literature review to ensure the alignment of ideas and flow, the Walden Library was my greatest resource. The psychology department librarian met with me in 2019 and 6 months later in 2020. General search strategies required preparation. Keywords such as *first responders*, *mental health issues*, and *spouses* yielded very little in helping me find a gap in the literature relative to the Las Vegas shooting. Therefore, I expanded the outline to include a history and definition of mass shootings.

During the university doctorate coursework, I was counseled to develop a topic of interest for most of the homework assignments given in class. This advice proved invaluable in helping me flesh out the ideas and find articles to explain the concepts of *mass shootings*, *vicarious trauma*, and *the Las Vegas mass shooting*.

### **Databases**

The librarian provided different strategies for searching specific databases with Thoreau. Relevant databases included Psychology and Criminal Justice (e.g., ProQuest Criminal Justice Database). The librarian emphasized using the limiters by checking the

peer-review box and unchecking the full-text box to expand relevant hits. Using themes and subthemes as keywords (e.g., vicarious trauma, first responders, spouses/family) helped expand the hits of relevant articles. Also, in the Thoreau search boxes, the connector AND helped find articles that included all the keywords used in a particular search. Once saturation was met, I used quotation marks along with the connector AND, such as "first responders" AND "spouses," which supplied further articles. PsychInfo provided search capabilities on significant themes, and Thoreau searched strings of keywords, with or without the connector AND. Another avenue in finding relevant articles was to look in the reference section for further pertinent articles.

### **Further Development**

I incorporated strategies in the literature review development by working with dissertation resources from Walden University Library and public sources. Such strategies included combing the pertinent articles in greater depth and developing more substantial outlines. This literature review begins with a discussion of vicarious trauma.

### **Vicarious Trauma**

Definitions of trauma and its different components are needed to understand the ripple effect of trauma. The American Psychological Association defined *trauma* as the emotional response to horrific events such as accidents, rape, war, and natural disasters. *Vicarious trauma* results from someone in an empathic relationship –professional or personal – who has an accumulation process in bearing witness to another's trauma and pain (Branson, 2019).

## **History**

In 2000, van der Kolk explored the history of trauma and its subsequent clinical definitions. The history of vicarious trauma tracks with a scholarly understanding of general trauma. Initial work on trauma was conducted in the late 19<sup>th</sup> century. There arose an interest in the psychiatric realm of the interactive responses between the physiological responses and events themselves. Jean-Martin Charcot (1887) believed that his patients who exhibited *hysteria* were rooted in past traumatic experiences. Charcot's student, Pierre Janet, conducted research and had findings that supported Charcot's idea. Janet concluded that the intensity of responses was indeed associated with past traumatic events.

Furthermore, Janet proposed that the intense responses interfered with incorporating the past trauma with the dissociation, causing an inability to render a narrative of said event. Later, Freud ultimately believed that his patients' (with hysteria) attempts to provide a narrative of past traumatic events were fantasies. It was not until World War II that interest in trauma and associated responses was again at the forefront of researchers' minds.

### ***World War I and II***

A psychoanalyst, Abram Kardiner, wrote of his experience treating WWI veterans (van der Kolk, 2000). Kardiner described that *traumatic neuroses* caused the veterans to be hypervigilant and sensitive to environmental threats, which extended far beyond a traumatic event in their lives. Kardiner further lamented after WWII that continual study

of the physiobiological effects of trauma could not be performed because the event, WWII in this case, was over. Additionally, the neuroses continued with the individual. Thus, it became apparent that a researcher delving into this arena would have to start from scratch with each individual and "work at the problem as if no one has ever done anything with it before" (van der Kolk, 2000, p. 12). Furthermore, for 30 years until the Vietnam War and the women's movement, these former ideas were enhanced by further research, especially in the neurosciences. As described by van der Kolk (2000), post-traumatic stress responses leading to the PTSD diagnosis are "the persistence of biological emergency responses" (p. 12) of the PTSD-labeled mental disorder.

### ***Late 20th Century***

Ludick and Figley (2017) pointed out that Figley, in the 1980s, was the first to coin several labels to describe different nuances of trauma further. The first iterations away from the term *trauma* became *STS* and *compassion fatigue* (CF). These new labels applied to not only clinicians but also firefighters, police, and emergency workers, describing the accumulative nature of trauma. Figley created a model displaying the function of these new labels, which he periodically adjusted as new insights were discovered through research (see Figure 3). This model helps to extend the net to include others beyond first responders who may also suffer secondary trauma.

### **Theoretical Stipulations**

Ludick and Figley (2017) declared that no single view of trauma and STS adequately describes the varied nuances. Accordingly, merging the then-current theories

– as expressed in Figure 1 – could yield a more balanced viewpoint. The undergirding of Figure 1 involves nine stipulations used for the model's mechanism: (a) STS is highly complex; (b) dosage of exposure varies from person to person; (c) STS may be activated if the worker (i.e., first responder) must utilize empathy during the performance of their job; (d) STS becomes elevated when the worker must compartmentalize their reaction and emotions; (e) STS is elevated when exposure is prolonged during their duties; (f) STS is also elevated if, in the course of their job, they remember prior traumatic experiences; (g) STS lowers in the context of "compassion stress satisfaction that increases a sense of worth and purpose"; (h) if the worker has perceived social support (i.e., workers, management), STS lowers, and (i) STS has a direct relationship to the level of CFR and is further impacted by other demands of their life (adapted from the theoretical stipulations found on p. 113).

With these stipulations in mind, Ludick and Figley (2017) created Figure 3 with the idea that the 12 variables shown result in a prediction of CFR:

- Exposure to suffering – this variable reflects the degree of exposure to a suffering victim.
- Empathic concern is the explicit and high level of compassion utilized while helping victims.
- Empathic ability – this variable refers to one's capability and proclivity to recognize the suffering of others.

- Empathic response – this variable implies one's reaction to suffering and willingness to employ empathy while striving to reduce the suffering of another.

Self-care, the ability to let go of a victim's suffering (detachment), having a sense of satisfaction, and social support become protective factors leading one towards resiliency and away from the debilitating effects of secondary trauma (Ludick & Figley, 2017, p. 117).

### **Similar Terms**

The term *vicarious trauma* is limited in its use. Consequently, several terms seem to overlap but will serve as a guide in the literature review.

- *STS* occurs when one is overwhelmed when trying to assist.
- *Compassion fatigue* would be an appropriate term for what happens when lay people or loved ones try to help.
- *Burnout* is a term that generally refers to those in a poor working environment who may experience a lack of administrative support, commensurate pay, little advancement, or little to no expressed appreciation.
- *Countertransference* is usually used within the therapeutic alliance, indicating poor boundaries and a projection of personal issues on the client.

- *PTSD* may result from the accrual of first-hand victimization, witnessing a threat, being overwhelmed by another's suffering, or repeated exposure to the details of the trauma.
- *Emotional contagion* requires two aspects—mimicry and imitation—that reflect the encountered emotions (Branson, 2019).

Branson (2019) suggested that continued interest in primary and secondary trauma through acknowledgment of a traumatic event can impact clinical services and all aspects of the community.

### **Theory**

Terms without a theoretical basis become shallow, inconsistent, and unclear. As learned from the historical context of trauma, serious adherents to psychology and its tenets are familiar with Freud and his trauma theory. Trauma was defined as external excitations of such intensity, breaking through the protective mental layer called hysteria (Bulut, 2019, p. 1). More commonly among women, Charcot and Janet (van der Kolk, 2000) expanded the study of hysteria and pinpointed symptomology, including sudden paralysis, amnesia, and convulsion. As mentioned, Charcot was the first to distinguish these symptoms from physiological to psychological.

Radstone (2007) explored the history of trauma theory by identifying the early 1990s as when trauma interest took off in academia, especially in the humanities. Furthermore, Radstone pointed out trauma theory was first introduced in 1996 in Caruth's *Unclaimed Experience*. Radstone stated that the opposites of good and evil, black and

white, and "pure innocence and pure evil (a condition called Manicheanism)" are put in check, allowing for a deeper appreciation of the subtleties of trauma (p. 26).

Zaleski et al. (2016) expounded on Herman's trauma theory by arguing that Herman suggested commonalities of trauma symptoms, whether being a survivor of wartime, political unrest, sexual abuse, or relational violence. Thus, contextualizing the trauma and outcomes and undergirding them with societal influences is essential. Doing so helps individuals alleviate self-blame where they previously felt defective and weak. Zaleski et al. celebrated Herman's contributions as championing humanity.

### **Bowen's Family Systems Theory**

Bowen's family systems theory (The Bowen Center for the Study of the Family, n.d., *Who We Are, History*) was initially founded by Murray Bowen, whose theory is preserved and taught through this center. His acolytes have continued his work. The center also archives several of Murray's early articles that began to develop his systems theory. The center lays out the eight components that constitute Bowen's family systems theory (see [Learn About Bowen Theory](#)).

Brown (2008), in an article for the Family Systems Institute, gave an overview of the first comprehensive model or theories of family system functioning. Brown indicated that Bowen's focus was on patterns that develop in families to defuse anxiety. A key stress generator in families is the perception of either too much closeness or too great a distance in a relationship. The degree of anxiety in any family will be determined by the current levels of external stress and the sensitivities to particular themes transmitted down



the generations. Suppose family members cannot think through their responses to relationship dilemmas but react anxiously to perceived emotional demands. In that case, a state of chronic anxiety or reactivity may be set in place.

### **Application**

These theories provide context through which the first responders' spousal responses will be assessed and coded to find patterns and themes. The central premise of Bowen's model is that families exhibit behavior patterns in response to defusing anxiety. There are eight angles in which to understand this model: (a) emotional fusion and differentiation of self, (b) triangles, (c) nuclear family emotional system, (d) family projection process, (e) emotional cutoff, (f) multigenerational transmission process, (g) sibling positions, and (h) emotional processes of society (The Bowen Center for the Study of the Family, n.d., Learn About Bowen Theory).

### **First Responders**

McKeon et al. (2019) defined first responders as "police, fire, ambulance and other emergency services personnel" (p. 1). Perhaps others, such as crime scene investigators, forensic lab specialists, and clinicians, ought to be acknowledged because the traumatic event ripples outward, subsequently impacting these people as well. For example, Hammerle et al. (2017) described the distress often found in hospital emergency departments. Moral distress, such as compromising standards due to fatigue and workload, will accumulate, leading to exhaustion, depersonalization, and, ultimately, poorer performance.

In a similar manner, paramedics confront challenges. Regehr (2005) named prolonged exposure to personal safety issues and human suffering as contributing to poor mental health. Also, the skills needed to be an effective paramedic do not translate well to their interpersonal life, which can dampen the quality of that life. Alarming, such stressors' impact leads to trauma responses – at any given time – with research suggesting that between 25% and 33% of paramedics have trauma symptomology in the high to severe range. Once again, this ripples outward to job performance and personal relationships.

Similarly, Morman et al. (2020) explored the occupational stress experienced by firefighters related to the quality of work life. The researchers conceded that being a firefighter is one of the few professions that daily put the employee in harm's way, both dangerous and life-threatening. Interestingly, the firefighting profession has increased job satisfaction if there are quality relationships with friends and family. Also, law enforcement personnel face both similar and unique challenges. Using the civil unrest in Ferguson, Missouri, Galovski et al. (2018) investigated PTSD and depression in the police (and community members) following that city's period of violence. To bring historical context, what occurred in Ferguson, Missouri, was a very dark time for that community. A few months before August 2014, a report referred to by Galovski et al., entitled *For the Sake of All*, published by Washington University and St. Louis University in 2015, focused on racial disparity in St. Louis County in Missouri. Galovski

et al. noted that such alleged disparity included Blacks being 17 times more likely to be injured via firearms versus their White counterparts. Further, Blacks were:

six times more likely to suffer abuse, neglect, or rape. Blacks were more likely to need emergency mental health treatment, had more risk factors for chronic disease (e.g., obesity), were diagnosed with higher rates of chronic disease (e.g., asthma, HIV, heart disease, diabetes), and reported significantly higher rates of negative birth outcomes as compared to Whites. (Galovski et al., 2018, p. 434)

On August 9, 2014, an 18-year-old African American was shot by a White police officer – respectively, Michael Brown and Darren Wilson. The storyline volleys back and forth as to who was at fault. Regardless, unrest, riots, and city fires caused extensive damage to homes, stores, and other local buildings. Looting became the outward expression of anger, discontent, and fear (Galovski et al., 2018).

Hsu (2018), a contributing historian for *Blackpast*, described these riots as continuing well into several months, during which investigations delved into the original shooting incident and the police department's history. The rioters cast a specific focus on the police department. With the increasing violence from the community, there were escalated violent measures employed by the police (i.e., tear gas, rubber bullets, smoke bombs, and flash grenades) to try and disperse the crowds. Hsu pointed out that the violence escalations culminated in late November 2014 when the grand jury arrived at the verdict not to indict Darren Wilson. A new wave of violence erupted, causing the Missouri Governor to bring in the National Guard. Subsequently, that intervention

effectively quelled the riots. Hsu noted that further investigations into the criminal justice system brought revamping and new direction; however, the Chief of Police, Thomas Jackson, did step down.

With this context, researchers Galovski et al. (2018) studied the effects of prolonged violence on survivors of trauma, such as in the Ferguson, Missouri riots. The researchers used several trajectories from the literature regarding responses to "mass casualty, terrorism, and disaster" (Galovski et al., 2018, p. 434). These trajectories included resistance, resilience, chronically distressed, and delayed distress. Galovski et al. found that most individuals were resistant to the adverse effects of violence. Additionally, the researchers found that in the wake of the Ferguson violence, the police (and citizens) who continued to suffer long-term effects prohibited a truce or meeting of the minds between parties in conflict with each other.

Consequently, the researchers noted that in 2015, the U.S. President, Barack Obama, created a task force. He gave the task force the goals of "identifying best practices in policing and developing recommendations around how those policing practices could contribute to effective crime reduction while building and strengthening public trust in the criminal justice system" (Galovski et al., 2018, p. 446). As these goals guided the Task Force, the best outcomes would have to include law enforcement and the community subgroups (i.e., sociopolitical groups, age groups, and neighborhood groups). Galovski et al. (2018) explained:

When an entire community is faced with a shared trauma such as the events in Ferguson, Missouri, assessing mental health effects with specific attention to the role of risk and protective factors in the natural recovery from trauma exposure is essential for the efficient and effective allocation of aid and resources (p. 447).

The Ferguson example infers the importance of both the first responders and the mental health systems' effective operation in being critical to healing intervention for shared trauma. First responders, who are often comprised of the police, firefighters, and emergency personnel, may be impacted secondarily after helping during a traumatic event, individually or in a group. The mental health system comprises social workers, therapists, psychologists, and the like and is found in various settings, such as hospitals, clinics, and criminal justice venues (Bercier & Maynard, 2015). These professionals are often the second layer of service after the first responders have triaged and administered to victims' well-being. First responders and mental health professionals may experience secondary trauma, compassion fatigue, and burnout, as defined earlier (Day et al., 2017). Though first responders and mental health professionals may have in common their possible reactions to trauma, it is the first responders the researcher focused on.

Providing information directly about first responders, the SAMHSA (2018) provided an informational supplement report focusing on the mental health and substance abuse of first responders. As a context for the information, SAMHSA purported that 30% of first responders develop exasperated mental health concerns versus 20% of the general

public. The administration used emergency personnel, firefighters, and law enforcement officers as the vehicle to convey important information.

- *Emergency medical services (EMS) personnel:* The tempo of the work often does not allow for the integration of their professional experiences with the ones they suffer from. 69% of EMS personnel report that there is not enough time to recover between events. EMS personnel suffer from depression, PTSD, and suicide or suicidal ideation (SAMHSA, 2018, pp. 4-5).
- *Firefighters:* Their work involves repeated exposure to danger and erratic sleep schedules. Common reactions to these stressors are depression, PTSD, substance abuse, and suicide or suicidal ideation (SAMHSA, 2018, pp. 5-6).
- *Police officers:* They are more likely to suffer due to the dangerous aspects of their job, with the likelihood of dealing with critical incidents, environmental hazards, and traumatic events. They, too, can react with depression, PTSD, substance abuse, and suicide or suicidal ideation (SAMHSA, 2018, p. 7).

It is important to note that while the statistics gathered point to the devastating effects of trauma and ignored mental health needs, too often, that is all that is reported in the news.

In a conference speech, mathematician Goldin (2008) shed light on the news media, saying that too often, they fail to underscore the meaning of statistics in their reporting.

Suppose a journalist is implying meaning on any given news story. In that case, it is critical to understand such concepts as "the meaning of statistically significant, causation versus correlation, relative risk versus absolute risk, scales and orders of magnitude, and

margin of error" (Goldin, 2008, p. 1). It is essential to convey an accurate understanding of first responders and their experiences.

The first responders are getting the research they deserve. Casas and Benuto (2022) conducted a systematic literature review regarding research on first responders. They suggest that the research and subsequent literature have thoroughly studied the "detrimental effects of employment on employees, especially within high stress and high trauma-exposed environments" (p. 209). The researchers continued by stating that the literature underscores the impact those high-stress jobs (i.e., first responders) have on their mental and physical health (e.g., irregular shift work, overnight hours, and dangerous situations).

However, Crowe et al. (2017) argued that while first responders' occupational hazards have garnered needed attention, a sense of personal competence, social support, and a bevy of positive coping skills contribute to resilience. As journalists and researchers delve into this group and their uniqueness, there is an emphasis on the job hazards and the resilience factors. What about the positive surrounding first responders in providing a well-balanced understanding? Once again, research provides a necessary perspective. SAMHSA (2018) confirmed that post-events like divorce are high among first responders. Concluding, SAMHSA reiterated that

First responders are always at the forefront of each incident or disaster, and they ensure the safety and well-being of the population. They are, however, at great danger of being exposed to potentially traumatic situations that pose the risk of

harm to them or the people under their care. This constitutes a great risk for the behavioral health of first responders, putting them at risk for stress, PTSD, depression, substance use, and suicide ideation and attempts. Both natural and technological disasters were found to be associated with increased risk of these conditions, as were factors such as resiliency, trust in self and team, duration on the disaster scene, individual coping style, and post-disaster mental health support. (p. 12)

SAMHSA (2018) does not end the report with only the negative impacts of first responder jobs and the environment. The agency emphasizes the need for resources and training in the first responder agencies. While it is necessary to provide resources for those first responders having difficulty being resilient, the statistics, in general, often overlook the power of first responder resilience. Resilience is "a dynamic, positive adaptation despite adversity, the ability to recover from a challenge and pursue the positive, and the ability to adapt as conditions change" (SAMHSA, 2018, p. 1). An example of looking at first responder behavior (both impacts and resilience), Crowe et al. (2017) were adamant that first responder behavior often shows distinctions from that of the general public. They further stress that while both groups (general public and first responders) share some perceptions of commonality regarding resilience (e.g., positive coping, social support, and personal competence), distinctions between the two are many. Most importantly, Crowe et al. (2017) identified that first responders are reluctant to seek professional help due to a perceived or real stigma they experience. There seems



to be a disconnect between the job "description" of helping the helpless and not being helpless. Indeed, professional help is needed when one becomes overwhelmed with life. Spouses/partners can support their first responder in overcoming the stigma.

Molloy (2022), in an interview with Motorola Solutions and Officer.com, spoke about stigma in this way. As a law enforcement officer in his early training days, he was taught to be in control of a situation and mentally be prepared to be shot. When a highly charged situation arises, he points out that how the brain reacts to the trauma is often surprising. Now, in his later career, Molloy advocates exposing the stigma through education and resources and simply talking about the impact of physical and mental jobs. Molloy sees a positive shift in newer recruits' awareness and acceptance of mental health consequences and resolutions.

### **Spouses (Partners) of First Responders**

After their literature review, Karaffa et al. (2015) found a dearth of literature about the impact of first responders' jobs and their stressors on spouses/partners. Regehr (2005) reasoned that the demographic of spouses, as intimate partners, may experience a transfer of stress from the first responder. For example, Roberts et al. (2013) found that when there was an increase in job stress, there was "less synchrony with their wives' hostility, and more synchrony with their wives' affection" (p. 271). Perhaps this is an attempt to protect and buffer their family from the stresses.

Additionally, Porter and Henriksen (2016) agreed that the population of first responder spouses had very little research on the impact of first responder experiences

and manifest stress. Various researchers (Karaffa et al., 2015; Porter & Henriksen, 2016) have identified various issues regarding spousal stress. These issues include a sense of safety, feeling stress, finding pride in the first responder, having an identity attached to the first responder, probable difficulties with finances, and an overall essence felt being a first responder spouse.

Furthermore, Friese (2020) pointed out that the literature indicates that a high percentage of first responders blur the boundaries of work and home effects from work, often impacting their personal lives, specifically their spouses. Friese acknowledged that reverse reactions by the spouse towards any number of traumas experienced by their first responder imply that spouses can experience what is considered secondary trauma. Reflecting again on Figure 1 and the Bowen family systems theory, there are patterns of behavior of spouses as they interact with their first responder.

Diehle et al. (2017) admitted that the evidence is mixed if a spouse (of the first responder) would develop STS. However, Friese (2020) pointed out that there is not enough research on the spousal connection in the life of a first responder. Their research concurred with Porter and Henriksen's (2016) findings. Tuttle et al. (2018) also spoke to the complexities of a first responder's job as it impacts the family system and, more importantly, the spousal aspect:

When stress experienced on duty is carried home with the officer, romantic relationships are impacted. The social and emotional spillover of work-related stress carries negative consequences for communication and emotion regulation

within law enforcement marriages, and the field of police stress spillover should be further expanded upon to understand these complexities. (p. 251)

Trauma can have a reverberating effect on an entire family system. Therefore, understanding family systems theory provides insight into the cause and effect of trauma impact reverberating from the individual outward to his personal and professional relationships. As previously mentioned, Levy (1998) described an interesting phenomenon engaged in by some traumatized individuals, which further impacted others beyond that of the individual. The phenomenon is called *reenactment*. In striving to understand one's use of *reenactment*, complexity is encountered. Reenactment may be an individual's way of mastering past traumas. Examples of reenactments may include self-injury, hypersexuality, high-risk behaviors, reckless driving, and so forth.

Therefore, the data and interpretation in the literature provide context for probing into the lived experiences of the spouses of the first responders to the October 1, 2017, mass shooting in Las Vegas. Nevertheless, a foray into the history of mass shootings is one aspect of traumatic first responder experiences.

## **Mass Shootings**

### **Background**

Violence is not a new phenomenon in communities, both past and present. However, the historical roots of mass violence have not been remembered, except for understanding the current trends globally and at home in the United States of America (Hammack, 2016). Hammack (2016) identified the year 1891 as an argued onset of what

is now termed *mass shootings*. An unnamed perpetrator in Missouri and James Foster in New York – a few weeks apart – entered the school grounds and fired on children, the former wounding over 14 (mostly children) and the latter wounding an unknown number.

In our collective consciousness, the names of schools or communities haunted by mass shooters are not even a blip on our radar. Historical shootings such as the Canon Band school massacre (1903), Thomas Jones-Houston massacre (1913), Lehigh University shooting (1936), Chester shooting (1948), Parsippany-Troy Hills shooting (1956), and William Reed elementary school shooting (1960) are not noted (Hammack, 2016, see Figure 2).

One particular mass shooting occurring in 1949 is essential to consider. Sauer (2015) identified the Unruh mass shooting as a sinister foreboding of what would become all too familiar in the late 20<sup>th</sup> century and well into the 21<sup>st</sup> century. Howard Unruh lived in Cramer Hill, New Jersey. He lived an unremarkable childhood. However, in his young adult life, he identified with being gay. After a stint in the military, Unruh lived with his mother in Cramer Hill. He exhibited paranoia and anger over perceived slights and petty squabbles. Over a few years, Unruh kept copious notes about these external infractions – when, who, and what. He contemplated killing the individuals. On the morning of Tuesday, September 6, 1949, Unruh went on a rampage with a German Luger P08, a 9mm pistol. What became termed *The Walk of Death*, he murdered 13 people and wounded three others. This event is considered an early chapter in mass shooting history (Sauer, 2015). Remarkably, this event is not on Sauer's Figure 2 timeline.

It was not until the tower shooting in August 1966 that real-time coverage was available (13 dead, 31 injured). It seemed more shocking because of the number of deaths and wounding. Also, it was unprecedented due to the near real-time media reporting (Peterson & Densley, 2022). The added sophistication of media reporting via television allowed for greater detail to come to fruition when striving to comprehend the nuances of mass shootings.

With a grant from the National Institute of Justice, Peterson and Densley (2022) began collecting data from mass shootings from 1966 to 2020. As the data were arduously gathered, Peterson and Densley could derive the variables that may have stood out to include location, shooter demographics, shooter mental health status at the time of the incident, and whether the shooter was captured or took their own life. The categorization allowed Peterson and Densley to conduct an analysis. Initially, the researchers intended to consider the aspects of gun control relative to mass shootings. However, with an analysis of the variables, Peterson and Densley were able to glean valuable insights. For example, some key findings include: 80% of mass shooters had a noticeable crisis before the event, and 70% of the shooters had no evidence of psychosis. Before the attack, 31% were suicidal, whereas 59% died at the scene of the attack. Peterson and Densley have made it their mission to continue with analysis and training in the hopes of being able to prevent future mass shootings.

Other databases are dedicated to understanding mass shootings, such as the Gun Violence Archive, Mother Jones' Investigation, Everytown for Gun Safety, Federal

Bureau of Investigations Uniform Crime Reporting Program, and Federal Bureau of Investigations – Active Shooter Incidents in 2014-2015. However, not all databases are created equal. The definition of *mass shooting* varied between databases, causing differences in the analysis of said databases.

### **Definitions**

The accepted mass shooting definition used by Peterson and Densley's database – The Violence Project – is an event with one or more shooters killing at least one unrelated person from an area of multiple unrelated persons (Lowe & Galea, 2017). This definition is similar to the Investigative Assistance for Violent Crimes Act of 2012 (Congress Public Law 112-265, 2013), which includes three or more killings in a single incident. A website dedicated to the support of gun safety research, Everytown (2023), expanded the accepted definition to be a singular incident where four or more individuals are shot and killed, not to include the perpetrator. For this literature review, the definition proposed by the Congressional Research Service (CRS, 2015) is used:

According to the FBI, the term “mass murder” has been defined generally as a multiple homicide incident in which four or more victims are murdered, within one event, and in one or more locations in close geographical proximity. Based on this definition, for the purposes of this report, “mass shooting” is defined as a multiple homicide incident in which four or more victims are murdered with firearms, within one event, and in one or more locations in close proximity. Similarly, a “mass public shooting” is defined to mean a multiple homicide

incident in which four or more victims are murdered with firearms, within one event, in at least one or more public locations, such as a workplace, school, restaurant, house of worship, neighborhood, or other public setting. (p. 1)

### **Mass Shooting Data**

Booty et al. (2019) stated that databases help to understand the mass shooting phenomenon burden on America. They advocate for a standardized mass shooting definition because there are several overlaps between the various databases. The data analysis will be improved with a standard definition of a mass shooting.

With the FBI and Congressional definitions in mind, Peterson and Densely (2022) gathered extensive data and developed a platform called The Violence Project so that researchers could access the database. Also worth noting is that The Gun Archive is another data source with archives dating back to 2014, with 7,500 sources verified daily. The data is updated daily.

Examples of data that a researcher might find helpful are as follows: starting with the 1966 Clock Tower shooting by Charles Whitman, Peterson and Densely (2022) earnestly began in 2017 (after the Las Vegas mass shooting) to gather data. The 1966 mass shooting was a starting point because of the advent of near real-time news coverage. Additionally, Peterson and Densely found that the average age of a shooter was 34 years old, and the majority (31%) of mass shootings occurred at the workplace.

The researchers found many variables involved in the commission of a mass shooting. The shooter was usually a stranger to the establishment when the shooting was

committed in retail stores, restaurants, or bars. Whereas, when the shooting occurred in a place of business, worship, or school, the shooter was usually a current or former student or insider known to many victims (Peterson & Densley, 2022). Of the 172 mass shootings researched, the perpetrators were predominantly male (average age 34, ranging from ages 10 to 70 years old). Four of the shooters were female, with two of those females acting in tandem with a male. An example of an incident with a female perpetrator, Jennifer San Marco, was in 2006 when Ms. San Marco, a former postal employee, shot and killed seven people at a postal facility in Goleta, California. Though having an unconfirmed psychotic diagnosis, Peterson and Densley indicated that available information suggested that San Marco was given early retirement because of her bizarre business ideas and increased problematic behavior. Her problematic behavior included talking with herself and imaginary people and taking her clothes off in public. Other female perpetrators included a native American with governmental and tribal resentments, a Muslim woman (in conjunction with a male) with grievances towards a workplace, and a woman/man combination with increased personality changes towards their community.

I selected three mass shootings prior to the Las Vegas mass shooting from the years 2012 through 2016, colloquially known as Sandy Hook, Aurora, and Norway (I was personally affected by these particular events; I knew the family of one of the children at Sandy Hook, my work colleague was in the theater in Aurora, and being Norwegian, I had family members affected in Norway). Additionally included is the Las Vegas mass shooting because of the direction of this dissertation.



## **Selected Mass Shooting Events**

### **Aurora, Colorado**

On Friday, July 20, 2012, a 24-year-old male entered a movie theater, killing 12 people and injuring 70 others. He had mood and thought disorders. He shared with a psychiatrist and a fellow student that he wanted to add value to his life by killing people. He had recently quit graduate school because he did poorly on his oral exams. He used a 12-gauge pump-action Remington 870 shotgun, two .40-caliber Glock pistols, and a .223 Smith & Wesson M&P15 AR-15 style rifle. A judge sentenced him to life terms for every individual killed, plus 3,318 years for the injuries he caused at the theater and his home (rigged with explosives). In other words, he is not eligible for parole (O'Neill, 2015; Peterson & Densley, 2022).

### **Utøya Massacre**

On July 22, 2011, a 32-year-old Norwegian male bombed government buildings in Oslo, Norway. He then went to the island of Utøya, where a group of Labour Party youth were at a summer camp. He dressed as an officer, which greatly confused the youth. Ultimately, he murdered 77 people, 33 of whom were under the age of 18. He had far-right extremist views and felt he was doing good by curbing the onslaught of radical Muslims. This massacre is included because, as of October 19, 2017, it was the deadliest mass shooting in the world. Due to liberal sentencing and no death penalty, the man was only sentenced to 21 years; however, years can be added if he continues to be proven a threat to society (BBC, October 19, 2017).

### **Sandy Hook**

On December 14, 2012, a 20-year-old White male entered Sandy Hook Elementary School, having already killed his mother. He continued to kill 26 and injure one other before turning a gun on himself. The shooter had an extensive history of mental health problems. Before the event, he blackened his windows and only communicated with his mother through e-mails. It was found that he was malnourished, which possibly affected his brain function. He and his mother planned on moving, contributing to his stress. The guns (legally obtained by his mother) included a 10 mm Glock 20 pistol, a 9mm Sig Sauer P225 pistol, a .22-caliber Savage Mark II bolt-action rifle, a 5.56mm Bushmaster XM15-E2S AR-15 style semi-automatic rifle, and a 12-gauge Izhmash Saiga semi-automatic shotgun (Peterson & Densley, 2022, The Violence Project database).

### **Las Vegas**

Colloquially known as the Route 91 Harvest Festival, the Las Vegas mass shooting perpetrator was a 64-year-old White male who shot into the music crowd from the 32<sup>nd</sup> floor of the Mandalay Bay Hotel and Casino. The following data comes from The Violence Project Database researched and created by Peterson and Densley (2022). This shooter broke some preconceived notions of mass shooter types. He slaughtered 58 people and injured 887 more, and his reign of terror lasted about 10 minutes. He brought to his hotel room a .223-caliber Christensen Arms CA-15 AR-15 Wylde with a bump stock, vertical fore grip, a .223-caliber Colt Competition AR-15 with a bump stock, vertical fore grip, a .223-caliber Colt M4 carbine AR-15 with a bump stock, vertical fore

grip, front sight, a .223-caliber Colt M4 carbine AR-15 with a bump stock, vertical fore grip, a .223-caliber Daniel Defense DDM4V11 AR-15 with a bump stock, vertical fore grip, EOTech optic, a .223-caliber Daniel Defense M4A1 AR-15 with a bump stock, vertical fore grip, EOTech optic, two .308 Daniel Defense DD5V1 AR-15 with bipod, scope, a .223-caliber FNHFN15 AR-15 with a bump stock, vertical fore grip, a .308 caliber FNHFM15 AR-10 with bipod, scope, a .223-caliber LMT Def. 2000 AR-15 with a bump stock, vertical fore grip, A.308-caliber LMT LM308MWS AR-10 with bipod, red dot scope, a .223-caliber LWRC M61C AR-15 with a bump stock, vertical fore grip, a .223-caliber LWRC M61C AR-15 with a bump stock, vertical fore grip, EOTech optic, a .223-caliber Noveske Rifleworks N4 AR-15 with a bump stock, vertical fore grip, EOTech optic, a .223-caliber POF USA AR-15 with a bump stock, vertical fore grip, a .223-caliber POF USAP15 AR-15 with a bump stock, vertical fore grip, EOTech optic, a .308-caliber POF USA P-308 AR-10 with bipod and scope, a .308-caliber Ruger American bolt-action rifle with scope, a .308-caliber Ruger SR0762 AR-10 with bipod, scope, a .308-caliber Sig Sauer SIG716 AR-10 with bipod, red dot optic, and finally, a .38-caliber Smith & Wesson 342 AirLite revolver. All this to apparently wage war.

After the initial 10 minutes, he killed himself. Little is known about this man, though his age defies most statistics of a typical mass shooter. He was college-educated and had no criminal history. The toxicology report indicated an apparent mood disorder. Two weeks previously, he had significant gambling losses. The only information his girlfriend could

offer was that he would break up with her, judging by his recent behavior (Peterson & Densley, 2022).

Before that fateful night, O. J. Simpson was released from prison earlier that day (Massarella, 2017, October 2). I wondered if this was a terrorist act. Before the evening went into the early morning, there was a basic outline of what was happening. Then the days slowly rolled on as new details cemented the night's terror.

The FEMA After-Action Report, dated August 24, 2018, was issued to describe best practices and recommendations for further action: strong cross-agency collaboration, response training tailored for mass casualty events, and coordinated cross-agency planning. On the third night of the Harvest Festival, over 22,000 people were in attendance. Tactical response came from 13 agencies and three private ambulance companies. There was chaos, threatening gunfire, and the subsequent response to the hundreds of victims. A command center was quickly set up, and the previous training in Multi-Assault Counter-Terrorism Action Capabilities (MACTAC) and Hostile Mass Casualty Incident (MCI) served to help in quick action and effective communication. However, in retrospect, first responders requested additional training, such as emergency medical care.

### **Specific Research**

Indeed, the first debates moments and days after the mass shooting served to spawn political contention by those wishing to mandate gun control. Statista (2024), a research and data-gathering entity, indicated that gun ownership in America is by far the

greatest compared to other countries. However, Statista underscores the absolute need for responsible gun ownership. Since 2015, 13 of the worst mass shootings have occurred, with the Las Vegas 2017 mass shooting being the deadliest with 58 dead and 800 plus injured (Statista Research Department, 2024).

Of the four mass shootings covered, it is unknown how the Norwegian in the 2011 Utøya shooting got his guns. However, all the weapons were legally obtained in the other three events. Lanza, in 2012, used his mother's weapons in the Sandy Hook killings (Sisak, 2022). Before the Las Vegas mass shooting, Paddock slowly accumulated his many weapons undetected through legal purchases by passing all background checks (Sisak, 2022). Existing research thus far surrounds gun control, jihadist versus domestic terrorism, and following victim journeys – some in peer-reviewed articles but mostly in news articles.

### **Literature Gap**

Segueing into the focus of this dissertation, the gap in the literature indicates a need for focus on the first responders as viewed by their spouses with the connection to first responders, vicarious trauma, and mass shootings. Consequently, there is a need to understand the spousal lived experiences with their first responder. It is important to note that the Las Vegas mass shooting affected these spouses in both community and intimate relationships.

## Summary and Conclusions

It is clear that mass shootings harm physically, emotionally, and mentally, often well beyond the event time. Novotney (2018) indicated that survivors enter the long-term phase several months after a mass shooting. Novotney expressed hope that while there may still be adjustments and relapses, most survivors (particularly children) will no longer need continuous mental health care. Notably, Novotney said that proximity to the event often dictates the severity of mental health consequences. Lowe and Galea (2017) added proximity, the female gender, and lower socio-economic levels as possible indicators of long-term effects.

Beydoun (2018) identified the Las Vegas mass shooting as the deadliest in American history. Other researchers, such as Day et al. (2017), Smith et al. (2019), and Cowan et al. (2020), all spoke to the rise of mass shootings and the mental health consequences of not only survivors but the first responders. Everytown (n.d.) gave this stark insight:

In the eight years between 2015 and 2022, over 19,000 people were shot and killed or wounded in the United States in a mass shooting. The reach of each mass shooting stretches far beyond those killed and wounded, harming the well-being of survivors, their families, and entire communities. (paragraph 1)

Reports of mass shootings, especially media coverage, can exacerbate general fear and a lack of safety (Cowan et al., 2020; Lowe & Galea, 2017); furthermore, as Cowan et al. (2020) suggested, a severely compromised sense of safety often results in more mental

health issues than is posed by natural disasters. A public mass casualty incident's second and tertiary victims must not be overlooked.

Therefore, this phenomenological research aims to gather and understand the first responder spouses' lived experiences incident to the October 1, 2017, mass shooting.

What is the answer to 'So what?' The answer is that the spouse's lived experience will shed light on the perceptions and needs of this population.

### Chapter 3: Research Method

Traumatic responses are a result of mass shooting events for victims and those who come to these victims' aid. First responders are one group subject to the effects of traumatic responses. SAMHSA (2018) published a report stating that it is imperative to protect our country and provide the services (i.e., law enforcement, firefighting, and emergency services) for that protection. The general problem, if left unchecked, is that traumatic responses to mass shootings can permeate outward, not simply impacting the first responder but also their family. Morman et al. (2020) identified this permeating as a *crossover effect*. There has been limited research regarding spouses of first responders. Even with the concerns and cautions researchers offer, there is little research on the marital relationship dynamic that impacts the first responder's resilience or lack thereof. Therefore, this phenomenological research aims to gather and understand the first responder spouses' lived experiences incident to the October 1, 2017, Las Vegas mass shooting.

The following research question drove this study: What are the lived experiences of the spouses (or partners) of the first responders on duty on October 1, 2017, who responded to the Las Vegas mass shooting that occurred on the final night of the Route 91 Harvest Festival?

This research question is supported by the following sub questions:

How did the spouse first hear about the mass shooting?

How long before the spouse heard from their first responder?



What happened in the subsequent days, weeks, and months?

What services were used by the first responder and their families for healing?

How are the couples doing now, five years later?

The following describes this study's research design, participants, and data collection and analysis steps.

### **Research Design**

Ali and Bhaskar (2016) described statistics as a scientific means of understanding and analyzing data. Without a proper understanding and application of statistical analysis, research studies cannot be well-developed, and conclusions can be erroneous, which may constitute “an unethical practice” (Ali & Bhaskar, 2016, p. 662). There are two avenues of statistical research: qualitative and quantitative approaches.

Quantitative analysis seeks to discover variables or combinations of variables that can predict outcomes, “as complete a prediction of an outcome variable as possible” (Allen, 2017, p. 38). Whereas qualitative analysis seeks to understand what and how “people see, view, approach, and experience the world (Ravitch & Carl, 2016, p. 7). Additionally, Ravitch and Carl (2016) stated that qualitative research aims to discover the meaning people apply to their experiences, especially in the context of a specific phenomenon or event.

Stangor (2015) pointed out that choosing the appropriate method and research design best suited for the research question is critical. In behavioral research, of which this study is a part, Stangor stated that ideas and theories must be backed up with data,

which is then used for analysis. Stangor described three different research designs, each with a specific goal to address and achieve: (a) descriptive research, whose goal is to “create a snapshot of the current state of affairs; (b) correlational research, whose goal is to “assess the relationships between and among two or more variables; and (c) experimental research, whose goal is to “assess the impact of one or more experimental manipulations on a dependent variable” (p. 20).

A qualitative approach and analysis were best suited to understanding the lived experiences in this current study, so this dissertation research was a qualitative study. As described by Ravitch and Carl (2016), there are many different types of qualitative research approaches.

- *Action research* is a “practice of situated, interpretive, reflexive, collaborative, ethical, democratic, and practical research” (Ravitch & Carl, 2016, p. 20).
- *Case study research* “involve[s] studying a case (multiple cases) of contemporary, real-life events” (Ravitch & Carl, 2016, p. 20).
- *Ethnography and critical ethnography* “places an emphasis on in-person field study and includes immersion, through participant observation, in a setting to decipher cultural meaning” (Ravitch & Carl, 2016, p. 21).
- *Evaluation research* seeks accountability, analysis, and learning to “create a greater understanding and to contextualize and humanize statistics and numbers” (Ravitch & Carl, 2016, p. 22).

- *Grounded theory research* “attempts to develop a theory that comes from data or the field” (Ravitch & Carl, 2016, p. 22).
- *Narrative research/inquiry* investigates a phenomenon, describes “individuals’ storied lives,” and writes about the experience (Ravitch & Carl, 2016, p. 23).
- *Participatory action research (PAR)* “is an umbrella term for a variety of participatory approaches to action-oriented research that focus on challenging hierarchical and asymmetrical relationships between research and action and between researchers and members of minoritized or marginalized communities (Ravitch & Carl, 2016, p. 23).
- *Phenomenological research*, while considering both a philosophy and a research method, “tend[s] to be interested in individuals’ lived experiences of a phenomenon” (Ravitch & Carl, 2016, p. 24).
- *Practitioner research* “constitutes a range of systematic, inquiry-based research efforts that are directed toward creating and extending professional knowledge, skills, ideas, and practices” (Ravitch & Carl, 2016, p. 24).

This dissertation research was a phenomenological study.

Cypress (2018) reiterated that a qualitative researcher must clearly define the goals and questions to be addressed and answered to avoid redundant efforts or tangents. I sought to identify the lived experiences of spouses/partners of first responders incident to the October 1, 2017, Las Vegas mass shooting. Therefore, employing a

phenomenological approach was best suited for this endeavor. Cypress described phenomenological interviewing as an “informal interactive process that aims to elicit a personal comprehensive description of a lived experience of a phenomenon” (p. 304). Also, using a phenomenological approach, only five to 30 participants need to be interviewed. Cypress articulated the procedures for preparing and conducting the interviews, which include defining the open-ended questions to be answered, deciding whom to interview, introducing the study to the participants, taking notes, and having transcripts of the interviews for reviewing, reflecting, and analyzing.

Moustakis (1994) underscored the humanistic aspect of a phenomenological study, where the individual's experiences, perceptions, and conclusions are the ultimate authority. The study is not about facts, but about the meanings derived from these experiences, giving a voice to the individual's unique perspective (see Moustakis, 1994, p. 49).

Phenomenology, step by step, attempts to eliminate everything that represents a prejudgment, setting aside presuppositions, and reaching a transcendental state of freshness and openness, a readiness to see in an unfettered way, not threatened by the customs, beliefs, and prejudices of normal science, by the habits of the natural world or by knowledge based on unreflected everyday experience (Moustakis, 1994).

In line with the purpose of this current study and extrapolating from Moustakis (1994), he described the several steps of a phenomenological study analysis using the Van Kaam method as follows:

- Listing and preliminary grouping
- Reduction and elimination
- Clustering and thematizing the invariant constituents:
- Final identification of the invariant constituents and themes by application:  
validation

Moustakis (1994) acknowledged that phenomenology research is “searching for the meaning” to be found in a phenomenon and suggests that moving beyond a participant's statements in response to the interviewing questions requires identifying patterns and themes, then reflecting on them for theme descriptions (p. 53). Moustakis stated:

From these steps we arrive at essences connected with universals of temporality, spatiality, body-hood, materiality, causality, relation to self and others. Then we know for ourselves, from our experiences of others, and from reflections on these experiences, the meanings and essences of entities and experiences in the everyday world. (p. 53)

Therefore, the following sections describe the implementation of the steps supported by Moustakis (1994), Ravitch and Carl (2016), and Stangor (2015).

### **Participants**

The participants of this study included six spouses of the first responders to the October 1, 2017, Las Vegas mass shooting. Two participants were from law enforcement, two from firefighters, and two from emergency services. Generally, hundreds of first

responders from the Las Vegas metropolitan area responded to the mass shooting, including law enforcement, firefighters, and emergency services personnel from Henderson, North Las Vegas, and Las Vegas proper (FEMA, 2018, p.10).

The participants of this study met the following inclusion criteria:

1. They were a current or former spouse/partner of a first responder who responded within the first 12 hours preceding the October 1, 2017, Las Vegas mass shooting.
2. They were a spouse/partner of such a first responder during the October 1, 2017, Las Vegas mass shooting.

### **Instrumentation**

I interviewed the participants for approximately 60 to 90 minutes in person or via Zoom. The interviews comprised 12 main questions, organized according to the interview protocol (see Appendix A). Sub-questions and probing questions were utilized when necessary to explore the concepts central to this study. Table 1 illustrates that the interview questions aligned with this study's conceptual framework.

**Table 1**

*Alignment Between Research Questions, Interview Questions, and Conceptual Framework*

Research question	Concept	Resulting interview question
RQ1. What are the lived experiences of the spouses (or partners) of the first responders on duty on October 1, 2017, and responded to the Las Vegas mass shooting that occurred on the final night of the Route 91 Harvest Festival?	Empathic ability	Prior to the October 1 mass shooting event, what were your existing empathic abilities?
	Exposure to suffering	What were your experiences of the October 1 mass shooting event?
	Empathic response	When you first heard of the mass shooting, what was your response?
		In the initial hours before the shooter died, what was your response?
		In the hours after the shooting, what was your response?
		In the days after the shooting, what was your response?
	Change in world view	After the shooting, how did your view of your life change? Your spouse's view?
	Secondary traumatic stress	After the shooting, how did prolonged exposure to suffering impact you? Impact your spouse?
		After the shooting, how did traumatic memories impact you? Impacted your spouse?

Research question	Concept	Resulting interview question
	Compassion fatigue	After the shooting, how did you experience fatigue, burn-out, PTSD, or unhealthy behaviors?
	Resilience	After the shooting, how are you more or less resilient?
	Posttraumatic growth & transformation	After the shooting, what transformation or growth have you and your spouse experienced?

### **Recruitment**

First, I created a list of potential participants from her acquaintances in the first responder community in the Las Vegas area. From there, I garnered recommendations for potential participants. Second, I sent an interest message via email or social media (see Appendix B). Third, potential participants completed a recruitment survey that allowed them to receive an informed consent document and be qualified to participate in the study. Finally, participants scheduled a time to meet with me for an approximately 60-minute interview.

### **Role of the Researcher**

The role of the researcher, as mentioned in Chapter 1, bears mentioning again. The researcher impacts the quality of the research. The trustworthiness (as discussed at the chapter's end) of the research findings and credibility are intertwined with the researcher, the participant, and the interpretation of the findings (Korstjens & Moser, 2018).



At the time of the October 1, 2017, Las Vegas mass shooting, I was a community citizen. My son-in-law worked in the emergency room of an overflow hospital. He was engaged in the triage of many victims and gave a death notice to a family member. Initially, I heard about a terror attack on a breaking news segment around 10:00 p.m. that night. My daughter and my grandchildren were already in bed. Being about 4 miles away from the shooting, I felt an urgent need to protect their home against something unclear at the time. As the night played out and the truth became more evident in the following days, I noticed that I became calmer with clarity based on facts. However, today, I remain hypervigilant in crowds. All this supports my passion in striving to understand how the families of first responders experienced that night, the aftermath, and how they are doing today.

Because of this connection, I remained aware of my preconceptions and kept them at bay through memoing and journaling. Especially as I coded findings, I was conscientious of my perceptions versus the participant's truth. While I was admiring or concerned about the participants' experiences and their truth, I listened and strived to code and interpret their experiences accurately. Having the participants review the emergent themes and subthemes allowed the participants to be involved in assuring the veracity of their experience.

### **Data Collection**

At a time and place (in person or via Zoom) convenient to both me and the participant, we met for the 60-minute interview. I conducted the interview using the

interview protocol (see Appendix A). The interview was recorded and transcribed for analysis. Interviews included probing questions not presented in the original interview protocol. Before and after the interview, I shared with each participant a list of mental health resources they may use as needed because of the potential PTSD symptomology that may arise due to the sharing of their experiences (see Appendix C).

### **Data Analysis**

Lester et al. (2020) presented a 7-phase process for the thematic analysis of qualitative data (see pp. 98-102). First, the authors described preparing and organizing the data. I processed and downloaded transcripts of the interviews and uploaded them to the ATLAS.ti software package. Second, Lester et al. recommended transcription and verification of the transcripts. I reviewed the transcripts alongside the original audio to verify the accuracy of the transcripts. Third, the authors recommended that the researcher review the transcripts and record initial reactions to the data. This step is to help identify any gaps that may need further research. Fourth, the authors recommended that the researcher create memos, marking places of importance within the gathered data. This practice helps capture the researcher's thoughts and initial insights into interpreting emerging data and where further analysis may be needed. The thematic coding may begin when initial coding is completed, bringing us to the fifth, sixth, and final phases.

Fifth, the authors pointed to data coding as a critical aspect of thematic analysis. Coding uses short phrases or one-word descriptions to identify singular meanings or clusters of meaning. The authors strongly suggested that phrases be used, as well, in the

coding process. For example, phase one would assign “codes to the entire data set” (Lester et al., 2020, p. 100). This helps identify “statements, experiences, and reflections” of noted importance (Lester et al., 2020, p. 100). The researcher examines the original phrases and codes in the second phase and identifies additional codes. These steps expand the inferences of themes, aiding in the connections as the researcher reflects on the “concepts and/or ideas that are more directly related to the focus of the study” (Lester et al., 2020, p. 100). In the third and final phase of coding, the researcher reduces the “size and complexity” of the datasets, striving for specificity in identifying and refining the “conceptual or theoretical idea” (Lester et al., 2020, p. 100).

Sixth, the researcher moves from the codes to the development of categories and then defines overarching themes. This step involves inductive interpretation as the identified themes relate to the focus of the study. There are two steps used in determining the themes: (a) recognize the “similarities, differences, and relationships” among the categories, and (b) assign a theme name that aligns with the focus of the research (Lester et al., 2020, p. 101). The seventh and final phase is to present the information in a “transparent and verifiable manner” (Lester et al., 2020, p. 101). An analytic mapping helps to capture the “audit trail” of “data sources, codes, categories, and themes” (Lester et al., 2020, p. 101).

### **Ethical Considerations**

Numerous ethical considerations need attention during the process of this study—for example, informed consent, confidentiality, and data security are essential in

upholding ethical standards. First, I obtained informed consent from the participants once the candidate was selected. Second, I maintained the confidentiality of the participant. I discussed confidentiality with the participant. Each participant received an identifier that obscured their identity. All interview materials, including transcripts, are kept in a locked vault. After the dissertation is complete, all participant identifiers will be destroyed. Third, I will maintain the data security of the collected audio recordings and transcripts. All digital copies are password-protected. Any written or printed materials relative to the participants will be kept in a locked vault. Finally, I shared with each participant a list of mental health resources, both before and after the interview, that they may use as needed because of the potential PTSD symptomology that may arise due to the sharing of their experiences.

### **Trustworthiness**

Cypress (2018) emphasized that all the steps to protect the participants ethically, the results, and subsequent dissertation dissemination lead to the researcher's trustworthiness. Several components enhance this trustworthiness, such as credibility, transferability, and dependability. Korstjens and Moser (2018) defined the components of trustworthiness as follows, suggesting that addressing these areas will enhance the quality of the research and its findings.

### **Credibility**

Credibility is the confidence one has that the research findings are based on an accurate interpretation of the findings – that the inferences reflect the original intent of

the participant (Korstjens & Moser, 2018). One strategy to address credibility, as described by Korstjens and Moser (2018), is prolonged engagement. Therefore, I engaged in prolonged, long interviews with the participants, demonstrating my commitment to ensuring the accuracy of the findings.

### **Transferability**

Transferability refers to detailed and thorough descriptions of the findings that help augment their transferability to other contexts or respondent settings (Korstjens & Moser, 2018). One strategy for addressing transferability, as described by Korstjens and Moser (2018), is the use of thick descriptions. Therefore, I used the participants' descriptive and contextual expressions to make the findings more meaningful to outsiders, thereby enhancing the transferability of the research.

### **Dependability**

Dependability refers to the stability of the findings over time and where the participants agree with the researcher's interpretations and recommendations (Korstjens & Moser, 2018). Korstjens and Moser (2018) describe having an audit trail as one strategy for addressing dependability. Therefore, after the research was completed, I sent the participants the findings which included the themes and subthemes derived from their interviews.

### **Confirmability**

Confirmability is when other researchers or scientists, when reading the research findings, are confident that the researcher did not make up conclusions but derived such

conclusions from a correct interpretation of the data (Korstjens & Moser, 2018). Korstjens and Moser (2018) also describe keeping an audit trail as a strategy for addressing confirmability. Therefore, keeping track of each step in the research process allows for confirmability throughout.

### **Reflexivity**

Reflexivity is when the researcher constantly assesses their biases and preconceptions and how they may affect how the participant engages with the researcher. Journaling and memoing are effective ways to track biases and preconceptions (Korstjens & Moser, 2018). Dodgson (2019) echoed others who said reflexivity is the gold standard to ensure the credibility of the findings. Therefore, I employed the strategy of journaling my thoughts and biases throughout the research process to ensure that such biases were mitigated throughout the theming and conclusions.

### **Summary**

This dissertation study aimed to capture and identify the lived experiences of spouses/partners of first responders incident to the October 1, 2017, Las Vegas mass shooting. This chapter further addressed the rationale behind the purpose and the choice of a qualitative phenomenological approach. Interviewing and transcriptions, coding, and thematic analysis were used. I transcribed the interviews on my own by using a transcription application, Speech Translate, for an added layer of anonymity. Additionally, the ATLAS.ti software was used to code, categorize, and identify themes.

Reflexivity was critical in maintaining ethical standards, self-awareness, a purer approach to interpretation, and a standard of excellence.

## Chapter 4: Results

### **Introduction**

This qualitative research focus, specifically a phenomenological study, used the Las Vegas community event of the October 1, 2017, Las Vegas mass shooting to explore the lived experiences of first responder spouses. Interviews were conducted with spouses of first responders across law enforcement, firefighting, and emergency services. The research question that governed the interview process was as follows: What are the lived experiences of the spouses (or partners) of the first responders on duty on October 1, 2017, and responded to the Las Vegas mass shooting that occurred on the final night of the Route 91 Harvest Festival? This chapter explores the data collection and analysis process and the subsequent results.

### **Setting**

In Chapter 3, under the heading of Participants and Instrumentation, I sought law enforcement, firefighting, and emergency services participants. Initially, I hoped that two participants would be interviewed from the following fields: law enforcement, firefighting, emergency room personnel, and ambulance personnel. However, there were unanticipated obstacles to getting the remainder of the participants once I had exhausted all known personal and professional contacts. One example is that there were times when the first responder decided for the spouse without even consulting them. Noteworthy was the relaxation on the participant's part when they heard that I was not only a doctoral candidate but a member of the Southern Nevada Human Trafficking Task Force. It can



only be surmised that I was considered “one of them” – working alongside first responders.

Once the informed consent document was returned via email with an “I consent” response, an interview time was selected. Each participant was offered an in-person or Zoom meeting option. With only one exception, the participants chose a Zoom meeting interview, which allowed them to easily schedule a convenient time for them.

Due to the obstacles encountered, I took the entire 1-year timeframe that the IRB allowed. Because saturation was reached with the six participants, it was not necessary to extend the IRB certification. In the meantime, I resumed writing the Chapter 4 results sections.

### **Demographics**

Six participants – two from law enforcement, two from firefighting, and two from emergency services personnel – who met the criteria for participation were interviewed. The timeframe for these interviews ranged from June 2023 through April 2024. The criteria to have been met were two-fold, as discussed in the participant subgroup in Chapter 3:

The participants of this study must meet the following inclusion criteria:

1. They were a current or former spouse/partner of a first responder who responded within the first twelve hours preceding the October 1, 2017, Las Vegas mass shooting.

2. They were a spouse/partner of such a first responder during the October 1, 2017, Las Vegas mass shooting.

Each participant was given an identifier, such as P01, P02, and so forth (P stands for participant).

### **Data Collection**

As stated previously, all but one participant elected to participate in a Zoom meeting interview. I sent a link, encouraging the participants to find a quiet and private space to conduct the interview. All documentation sent to the participants indicated a time allotment of approximately 1 hour. For the same questions, all of which supported the main research question, the interview times ranged from around 25 minutes to an hour and 25 minutes. It seemed to depend on how comfortable and articulate a participant was in answering the questions. Governed by the research question, the sub questions were as described in Chapter 3 Instrumentation.

Occasionally, the participant would say something that prompted a clarifying question to ascertain a greater depth. The interviews were recorded in two different ways. One was to use the Zoom recording function, whereas the other was to use the Voice Memo function on my personal phone for backup in case there were any technical difficulties. SpeechTranslate.exe was used for transcription purposes. This transcription method added an extra layer of security and anonymity without having to use other individuals or their services.

### **Data Analysis**

ATLAS.ti was utilized in the coding process. The process of coding elicits emerging patterns that are “intended to represent the essences and essentials of humans’ lived experiences” (Saldaña, 2014, p. 596). While each participant had unique experiences ranging from being at the concert to hearing from their first responder spouse while they were on shift to not getting an accurate picture of events as they impacted their spouse until the next day, the adjectives used by the participants were similar. Eight themes emerged from coding: Initial shock, jump to action, waiting, the return home, secondary trauma, continued capacity for compassion, and more resilience. Within these themes were several subthemes. Table 2 illustrates the themes and subthemes.

**Table 2***Themes and Subthemes*

Theme	Subthemes
Initial shock	Disbelief
	Dissociation
	Well-grounded worry
Jump to action	Toward family at home
	Toward first responder family
	Toward saving oneself
The return home	I'm fine; leave me alone
	Return to normal life
Secondary trauma	PTSD
	Hypervigilance
	Avoidance
Continued capacity for compassion	More in the moment
	More open and vulnerable
More resilience	Drawing on "something bigger than themselves"
	Owning post-traumatic growth (i.e., therapy)
	Drawing on well-tested strength they used after shooting

**Evidence of Trustworthiness**

The hallmarks of trustworthiness include credibility, transferability, dependability, confirmability, and reflexivity. I had an indirect experience with the mass shooting, given that I was and am a member of the Las Vegas community. However, my natural tendency to listen with compassion enabled me to be open-minded to new

perspectives and insights. I was able to craft clarifying questions in response to the participants' answers to the different questions. Though moved by the recounting of the various stories, I was touched by the articulation of resilience. That engagement with the participants allowed them to be vulnerable in safety and honor. These aspects underscore credibility, transferability, and dependability, as described in Chapter 3.

Reflexivity encouraged me to check my ego and perceived understanding aside, thus allowing the participants to express their own experiences, showcase their insights, and choose their wording. Bracketing further reigned in preconceived expectations, which continued to allow the participants to free flow with their story. Rich insights were gleaned because of my warmth, kindness, and gratitude.

If another researcher were to interview first responder spouses incident to the October 1, 2017, it would be probable that similar findings would occur. All six participants, though having a different experience from each other, used similar expressions and adjectives, which not only lent themselves to the identified themes but also supported confirmability.

## **Results**

As previously indicated, the emerging themes and subsequent subthemes provide a framework for the understanding of the lived experiences of spouses/partners of first responders within the context of the phenomenon of the Las Vegas mass shooting.

### **Initial Shock**

According to the FEMA 1 October After-Action Report (2018), the mass shooting took place on the third night of the Route 91 Harvest Festival (p. 4). Jason Aldean, a country music star, took the stage at 9:40 p.m. (PST). About 30 minutes into his set, shots rang out. The one participant at the concert describes the initial confusion as wondering if the sounds were firecrackers. All the other participants intimate that when they first heard about the shooting, either via the news media or from other people texting them, they also described their initial reactions as confusion and shock.

### ***Disbelief***

Disbelief is a “mental rejection of something as untrue” (Merriam-Webster, n.d.). Disbelief was expressed in varying ways. P06, who was at the concert, shared that they were enjoying the concert, feeling light and happy. When the shots first rang out, they were startled. When it became clear that the sounds were shots being fired from a distance into the crowd, their spouse, a first responder, went into professional mode, tasking them to take cover and get home, and then went off to help triage and whatever else would be required. P02 was at the movies with their family when their first responder spouse started getting several texts. Their initial reaction was another version of disbelief, “WHAT?!?” P01, who heard about it later in the night, said their mother awakened them. P01’s first responder spouse was at work, so they turned on the television and felt “shock.” Their memory reverted to the previous night when they had to drive past the venue on the way to an appointment, and they noticed all the reverie and

energy. Now, it was being contrasted with the scenes showcased on news stations, underscoring the feeling of disbelief and shock. There were further descriptions of sheer chaos, difficulty discerning reality, and the slow forming of the idea of what had happened while sifting through the influx of details versus hype.

### ***Dissociation***

Dissociation is the “disruption of and/or discontinuity in the normal integrations of consciousness, memory ... emotion ... behavior” (American Psychiatric Association, 2013, p. 291). Dissociation was an experiential commonality. The descriptors included feeling isolated and confused and impacted short-term memory issues. Finally, concerns and worries were well-founded as details came to light.

For example, P06, who was at the concert, described the subsequent moments when they were trying to find a place of safety after their spouse went off to help. Numbness had settled in, allowing them to focus on the task at hand to not be overwhelmed by processing what had just happened. Once finding some relative safety, they heard someone in the small group in that area recite The Lord’s Prayer, recalling,

I don’t know where I am right now ... which way [is] my car ... okay, if I’m going to die at least I’m going to die with like people that believe in God ... maybe it will be okay.

For some, this initial response was exacerbated by a series of sleepless nights. P04 recalled,

My initial response was ‘Oh, it’s getting closer to home!’ It was like a pit in my stomach ... a very low point ... [when I heard the shooter had died] ... it was a sense of relief ... [what lay in the shooter’s] wake was unfathomable.

### ***Well-Grounded Worry***

Once the initial reactions, better suited to the disbelief and dissociative realms, settled upon the release of verified details, the spouses/partners could embrace the evolution of their reactions. As the reports of what actually happened came, especially via Las Vegas Metropolitan Police Department Sheriff Joe Lombardo, any worry, concern, or fear that was experienced was found to be a rational response to a traumatic event. P05’s recollection was as follows:

My family, living three hours ahead of me, had texted...when I got an opportunity to look at my texts and turn on the morning news and see what happened [my] mouth dropped. I got scared. I tried calling my [spouse] as many times as I could and no answer at the time...hearing how bad [the] situation [was] and still [not having] the opportunity to talk to [them].

The participant who had been at the concert described the initial confusion followed by a volley of shots that killed or wounded those about them; indeed, the reality was worse than any imagined threats: “If we stay here, we’re like sitting ducks ... I don’t want to be a sitting duck ... what if it is someone here and they’re going to come get us ... we need to run!”



### **Jump to Action**

Once hours and even days passed, all participants felt compelled to reach out to their immediate family at home or the community at large. It seemed to stem from a desire to make right what had gone so terribly wrong. It is important to note that all manifestations of action for others, whether family or community, were already a part of their makeup prior to the mass shooting.

### ***Toward Family and Home***

All participants who had family, especially children, at home during the mass shooting turned their thoughts to the protection and care of these family members. The driving force was finding their way home. After the initial numbness and confusion wore off, finding order in their thought processes became difficult while trying to comprehend what had just happened.

P06 had a profound need to save themselves from the reality of being in the midst of the chaos and destruction, recounting,

[Once I was home, I called] my secure attachment in life ... I was again hysterical ... [I] couldn't comprehend anything like this ... [my mother had me call my brother] ... he's been to war; he's lived four years in Afghanistan ... [he] is mentally tough ... help me understand ... I feel like I'm grasping for reality ... [he pointed out that he knowingly went to a war zone, but] the threat doesn't usually show up in your backyard ... you don't go to a country concert and ...

expect [you] might be fending for [your] life ... you went to war in your safe space ...

P01 remembered,

I had to go to work the next day – everything seemed eerie driving because the freeway was closed... [I paid attention to my first responder spouse] because they were born and raised here...it hit him more... [after I got to work] my [spouse] called me to come home... [my spouse] was having a hard time...got emotional and broke down.

P05 described that their “main focus [was] to bring my family home safe each night ... so my focus then was my boys ... and my daughter.”

### ***Toward First Responder Family***

With a sense of urgency, for some, there was a need to help others, both professional and intimate friends. For example, organizing community efforts to provide food, water, and ample blood supply was one such avenue.

P02 quickly got to work helping others:

[This event impacted several first responder family members and friends.] My phone just wouldn't stop...the bravery that I personally witness[ed] or knew about was incredible...I started [with an idea, and then] collecting snacks and water donations...made goody bags [of] ChapStick, sunscreen, waters, granola bars, peanuts, things that would be filling and sustaining...within one day, we

filled a 27-foot trailer and probably another dozen other vehicles with food, snacks, and water donations.

Another idea that germinated was to “put a fundraiser together and [do] like a t-shirt fundraiser together ... we’re talking like thousands of t-shirts ... [we] raised something like \$10,000 [to help out a victim of that night].”

### ***Toward Saving Self***

P06, who was at the concert, was in the unique position of having to save themselves, once their first responder spouse went off to triage and help others per an innate training protocol:

I remember that feeling of ‘I got to get out...I got to run to my car and get home... [I clung to a stranger] ...I’ve never squeezed someone’s hand as hard and like a total stranger just lost like myself... [I had to be my own hero] ...that night I laid between my children.

### **Waiting**

The word *waiting* is a basic, simple word. Merriam-Webster (n.d.) defined *waiting* as “to stay in place in expectation of.” This seems simple until a traumatic event forces one to engage in the meaning of that word. All participants had to wait an agonizingly long time for word from their first responder spouse.

### ***Waiting for Word of Their Spouse***

The time for a first responder to finally arrive home varied. P05 described a curt, brief conversation with their spouse, who told them they would talk later:

I closed [my business] for the night...Normally, when I get off work, my [spouse]...we would talk...to let [them] know 'I'm on my way home, is everything okay, [do] you have everything to eat for lunch,' just to check in...but the think about it is when [we talked]...it was a bit eerie...it was a short, cold answer, 'I don't have time to talk. [There's] been a shooting and we'll talk about it later.' It was more like a 'Hang up!'

P02 recalled it this way:

The emotions are like that hopeless feeling, not knowing if my [spouse] is going to come home. Everybody immediately went to the line of fire...The bravery that I personally witness or knew about was incredible... [my spouse] came back home...it was the evening of the next day...

### ***Waiting for Word About the Spouses of Others***

Sometimes, participants knew other people in harm's way, not only at their spouse's respective agency but also at their own place of business, which had individuals directly impacted by this tragedy. One such case was as follows:

I [worked for a nearby casino resort]. I had traveled the two weekends prior to that event. I was [supposed to go to the concert] and had a ticket in my hand...but I had been traveling [so] I was exhausted, I hadn't any rest... [so I] decided to go to bed early that night... [I was putting my phone on] do not disturb, but the phone started to ring. It wasn't just one ring. It was multiple rings. [I was told] it was an active shooter situation...there was no real information, there was no solid

information as to what was happening...my husband was called into work...I was monitoring my [work] team...All I kept thinking was, 'I just hope everybody's okay.'

P04 echoed similar sentiments, "I knew a couple of people who were there. But it was just like a sense of 'Okay, here we go again.' [Eventually,] it was just good to be with each other and express our feelings."

### *Dissonance of Home Life*

Once the door was closed at their home, the spouses felt the dissonance between the relative quiet of their home and the reverberations out in the community. P01 recollected,

[Leaving to work] my [spouse] was in work mode...they [even had to give a death notice.] It affected [my spouse] ...it was just seeing the people who were looking for their loved ones... [at home] this broke his heart, [especially], he heard afterwards, that some didn't make it...I think that broke his heart. [At home,] I don't think [my children] really comprehended what happened.

P05 articulated this way:

[My spouse] had a few days where they cried...The days after the shooting, [our] response is starting to get back to the normal household...[my spouse] having to go to work those nights afterwards was always a concern...[in my spouse's profession] you have to be [at work and] you cannot talk about it [at home] ...it's just things that they cannot talk about...[I] would like to talk about it, but you

don't want to drag it out...they would see so many different things that go on at night...I would let [my spouse] bring it up...it affected [my spouse] because no one has ever seen this amount of people [killed or wounded.]

### **The Return Home**

At some point, the first responder returned home. However, it was only to turn around a few hours later to return to work, without the luxury of being able to decompress.

### ***I'm Fine; Leave Me Alone***

P06 pointed out, with some disdain,

We're the infrastructure that sends these men and women back to the work they do. So, if we're not doing good ourselves and we aren't capable of processing the things or whatever...we're all better when the family is better too.

P01 noticed the distance when the children were around the next day getting ready for school:

By the time [my spouse] got home, I had to leave within 15-20 minutes. [I had to hurry to take the children to school.] It wasn't until maybe within four hours... [that my spouse called because they] were having a hard time...my work was gracious and nice to let me leave.

### ***Return to Normal Life***

When the first responders finally returned home, some had helped the wounded, and some had helped give death notices. There were no breaks or time off for the first

responders because the community's first responders were on high alert, with all hands on deck. Each participant's return to normality looked different. P01 described that "[their spouse's] love for Vegas got stronger – [my spouse's] hometown and family. We got closer together as a family ... I think it brought the first responders together."

However, P06 described not getting back to anything that once was. Things would never be the same within their self or their marital relationship:

[What was still normal? My new normal] transformed what I give my time and energy to...like I cannot fake it...I can't do work unless I actually care about it...there's plenty in my life that I regret and things that I didn't tend to and problems that I just let fester instead of put attention to and say, 'Okay, I can fix that'...It doesn't have to own me anymore...I'm a new person who I don't even know yet. And that's the scary part. You know, you have to meet yourself again.

Similarly, P04 shared,

[The event] was definitely a steppingstone ... our work is very important, and it does affect a lot of lives ... I knew I had to be strong just to help support the families ... it's one breath at a time, we can get through this together ... there's a lot of good in the world, and it really just showed me the goodness in humanity, even though it was the darkness of humanity that really caused [the tragedy].

### **Secondary Trauma**

Bethune and Lewan (2019), in speaking of vicarious or secondary trauma, stated that mass shootings are "taking a toll on our mental health" (p. 1). Regarding the

aftermath of such an event, these authors posed the question to those in their study if they were “stressed about the possibility of a mass shooting” occurring in their community (p. 2). Bethune and Lewan (2019) further identified that about half of the participants were afraid of a mass shooting occurring in a mall setting or public event, whereas a fifth to a third of the respondents were worried about other venues, such as schools or movie theatres. The mental health challenges are many following a traumatic event.

### *PTSD*

P06, even during the interview, pointed out,

All the bright lights, like even this stupid fluorescent light behind me ... it just reminds me of ... that brightness of concert lights. [During the mass shooting, I remember thinking] that [the bright lights] shouldn't be on ... we shouldn't be seeing of this stuff, it should be dark.

Along with several others, P02 described that “Needless to say, there was very little sleep.” Similarly, one also identified, “... the sleepless nights.”

### *Hypervigilance*

P05 described this aspect of secondary trauma as,

[While my view of life] didn't change, [I used to do concerts, but] now I don't [do crowds]. So now, it just gives me even more of a focus. [For example,] if I'm ever in a department store, I know that back wall got a back exit somewhere.

P04 aptly stated,



I would say [that the event] just opened my eyes that everybody and I should have an exit point or be more wary of my surroundings and it could happen anywhere. It's just unfortunate that we live in this time of age...you could just be walking down the street or going to your work or attending a festival, and next thing you know, some type of tragedy happens. [For me,] it's just being more aware of that and just trying to get through it, but still not letting it hold me back with what I like to do and the activities I like to enjoy...but still being more aware than what I was before, to be honest.

### *Avoidance*

P05 succinctly expressed,  
[This exposure to this kind of tragedy has] changed my life to be more of a recluse. [Overall, however,] I didn't experience [other forms of secondary trauma.] My focus would have been to make sure [my spouse] was okay...[they] were there that night and [they] couldn't [share a lot] with me...And, you know, [I thought about] other security methods that we could do.

Another perspective shared, “[I used to be guarded] but now I am [more] discerning. [I believe that everybody's goal] is to want to come home. In the same condition. If not better than when we left.”

### **Continued Capacity for Compassion**

Without exception, compassion, empathy, and concern for others deepened, affecting their spousal relationship, friendships, and professional lives.

***More in the Moment***

P03 articulated,

A large portion of our lives are all planned out. And I can't control [that]. I can't lose sleep over it. Initially, I did. 'When is the phone going to ring?' So, we put things in place...That makes me feel better. [Even if,] I don't know where [my spouse is] ... [Of course,] I hope [my spouse] comes home.

Similarly, another described that "expressing how we feel or just wanting to vent...on anything. I'm grateful [my spouse] trusts me and [our] family...I feel like that is how [we] heal."

***More Open and Vulnerable***

P04 described,

[My spouse] became more expressive in some ways of what's going on and telling me about what going on with [their] day versus just holding everything in, because I feel like [my spouse] started to understand that holding things in, it's not healthy. And during that time, it felt like communication was the only thing that could help us get through the day...I learned that [suffering] comes in waves...and at times, it can feel so heavy. [I] have to remember to breathe.

Finally, P05 stated, "If I'm waking up in the morning, I already know I've got things to do. And it just [doesn't] stop from there. And that's the love part, the simple part of me."

### **More Resilience**

Again, all participants found either contentment with their resilient nature or noticed an increase in transformational growth. P05, who seemed content, stated, “I think that it’s about the same. I couldn’t say that [it made] it stronger because we just have so many different things that go on in everyday life.” While P06 described,

As a couple, we’ve been through some gnarly, dark things even since then. [Because] life is hard and stuff happens...we continuously choose each other and choose to find the next way that we can move through the tough time...because of the tough things we’ve been through...that mass shooting didn’t ruin us, we should be okay...it brought us strangely closer.

P01 put it this way,

Everyone experiences trials in their life, but I think those have helped us to overcome those [times] we’re going to experience in the future as a family or as a community maybe again... [how I get through] difficult [trials] is religion, God. Without it, I don’t know how...it would be much harder. I think [having] a purpose – why we are here – it makes it easier to get through.

### ***Drawing on “Something Bigger” Than Themselves***

All the participants referenced either God or something bigger than themselves.

P06 expressed it this way:

[I felt like] a comma or living in the shadows [to my spouse’s heroism and recognition] ... Let’s not stop there. Let’s continue through it and also recognize

the families that are existing behind the scenes...My mom always said, God gave you broad shoulders for a reason. She always said it.

P03 described it this way: "I honestly had to turn to God. And was like, 'Okay!'" P04 simply said, "There are bad moments, but I don't think I have a bad life."

### ***Owning Posttraumatic Growth***

The participants never pointed to others with blame but took ownership of their growth or strengthened the care and empathy they already possessed. While agency resources were not overtly offered, they knew their spouse would have the necessary access to any mental health resources if needed. No participants took advantage of external resources. All felt self-care was paramount. P06, in particular, found a therapist who assisted them in reconfiguring their persona in the wake of the tragedy. As expressed by P06,

I have gone through a lot of therapy...it's a work in progress. I feel like with this stuff, you never know what in life is going to open the door that you have to rework through something again. I remember [my spouse and I] having just real conversations about how [their] actions that night were the right thing in the moment, my actions that night were the right thing in the moment. And we still need to pay attention to the impact of those actions, whether they were right or wrong...I still felt abandoned, it opened up a childhood wound of feeling abandoned...I think [my spouse] and I have beaten all odds...we should be

divorced based on everything that we've gone through...[but] we're not designed to give up on us.

P03 felt,

There isn't anything that makes me want to kind of shut down...I'm just fortunate that way mentally...[While] I don't think there's much of a change [with me, there] absolutely and significantly been growth. You can learn lessons...sometimes it takes something [to wake you up and] really shake you up...to be reminded [that] I want to be the best version of myself.

### ***Drawing on Well-Tested Strength***

Before the 2017 mass shooting, every participant described a depth of character that included empathy, care for, and concern for their family, friends, and even their community. That character was demonstrated in their internal call to action and how they cared for those within their influence and stewardship sphere. As described by P04,

I want to live my best life and...enjoy where [I] am. Worry about what you actually have control over...I can only control me...I'm just a person who thinks that we're growing every single day, and every life experience is something that we just learn from.

P04 echoed the same type of sentiment:

I've been pretty good at compartmentalizing traumatic situations. It's part of [my own job]. I can't take the negativity and the tragedy and the traumatizing situations from work to my house, so I've learned pretty early in my career, even

before October 1<sup>st</sup>. I feel that there are things that I can control, but there are things I cannot control. I just have to figure out what's what and do the best that I can. That's truly how I live my life and how I [function] at work... [I ask myself,] 'Did I leave [an individual] a little bit better than when I first saw him or her? Most of the time, it's a yes. I feel like there are tragedies that still happen, but we just have to put one foot in front of the other and keep going.

### **Summary**

As the researcher, I found it essential to be a disinterested party and not juxtapose perceptions and personal experiences relative to that fateful night and subsequent days. Humility and honor flooded my senses as I listened to the stories; depths of suffering and rising from their proverbial ashes permeated throughout their experience. Though the participants' reactions to the common phenomenon of the October 1, 2017, Las Vegas mass shooting were different from one another, their descriptions and use of phrases or adjectives were similar. These participants described tragedy, confusion, fear, resolution, and either a re-commitment to what was beautiful in their lives or a transcendent reconfiguration of self and behavior.

Common among them was not taking any indirect or direct offering of the first responder agency's mental health resources. Some expressed that inherent in their spouse's job was a camaraderie unique to their first responder lifestyle within their work ranks. Meanwhile, as a spouse, some felt alone and isolated relative to this community

devastation. Many expressed profound appreciation for being asked for an interview, giving them a voice reflecting their feelings and perceptions of that tragedy.

## Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this phenomenological study was to gather insights and understanding of the lived experiences of the first responders' spouses incident to the phenomenon of the October 1, 2017, Las Vegas, Nevada, mass shooting at the Route 91 Harvest Festival. As identified in Chapter 1, the context for this purpose was that traumatic responses to mass shootings, such that a first responder might have, can permeate outward to their familial relationships. Six participants were interviewed, including two law enforcement spouses, two firefighter spouses, and two emergency room medical personnel spouses. Interviews took place between June 2023 and April 2024.

As presented in Chapter 1 and the Literature Review, this study arose from the existing scholarship on mass shootings and vicarious trauma. For example, Galovski et al. (2018) reported on several studies regarding mass casualties experienced in many communities in the wake of

mass [shootings], terrorism, and disaster ... [and there were]:distinct trajectories including (a) resistance - exposure to trauma with no reported pathological distress over time; (b) resilient - initially increased symptomatology, which decreases over time to pre-event functioning; (c) chronically distressed - elevated symptoms following the traumatic event with little or no improvement over a reasonable amount of time; and (d) delayed distressed - low levels of distress in the immediate aftermath of the event with increasing symptomatology over time.



Understanding the correlates of these trajectories following trauma is critical in the development of a roadmap for successful post-trauma adaptation. (Galovski et al., 2018, p. 434)

Extending in a broader dynamic, Morman et al. (2020) cautioned about the “crossover effect” of a first responder’s possible traumatic response to a mass shooting critical incident permeating outwardly to their familial relationships. Porter and Henricksen (2016) concluded that there was too little available research about first responders’ spouses’ lived experiences, especially in the context of the job and probable exposure to traumatic events.

My findings were that the participants, six spouses of first responders involved at some point in responding to the mass shooting event or its aftermath, experienced similar reactions at various junctures during the event and afterward. The themes that emerged were *initial shock*, *jumping into action*, *waiting*, *the first responder returning home*, *secondary trauma*, and *a continued capacity for compassion*. Universally, the participants were grateful for being provided with a platform for expressing their experiential perspectives and subsequent challenges. Accordingly, I examine the findings of this study in light of the prior literature. This chapter continues with the resulting recommendations for future research and practice. I end the chapter by providing a summary of future action for myself and other scholar-practitioners.

### **Interpretation of the Findings**

In Chapter 2, Literature Review, the theories that would provide the conceptual framework for this study were explored. For example, citing Zaleski et al. (2016), the trauma theory was expounded upon. Zaleski et al. confirmed that the literature suggests that victims of various types of trauma, both primary and secondary, experienced similar outcomes. Furthermore, Bowen's family systems theory provided context for such outcomes within a familial setting, advocating that how humans interface with life's experiences affects system constructs such as the family unit or system (Jakimowicz et al., 2020). As previously stated, several themes emerged similar to what was described by van der Kolk (2000) and Manning-Jones et al. (2015). For example, responses to traumatic events may be a combination of types of reactions like "numbness, withdrawal, confusion, shock, and speechless terror" (van der Kolk, 2000, p. 8), as well as possible reactions such as "initial shock, devastation, and the shattering of their assumptions about themselves and the world" (Manning-Jones et al., 2015, p. 134). May and Wisco (2016) pointed out that the reaction intensity an individual may experience relative to a traumatic event often depends on their proximity to the event; the closer they are to the actual event, the more that it will determine whether primary or secondary traumatic reactions occur. Consequently, my findings did substantiate previous research; though similar in outcomes, I chose the following theme labels.

## **Initial Shock**

Before my study, the literature indicated that initial shock was part of a series of reactions to a traumatic event (e.g., Manning-Jones et al., 2015; Novotney, 2018; van der Kolk, 2000). My findings, beginning with the initial shock, support previous literature findings. The researchers accurately discerned the reactions within their studies; thus, replication has remained consistent throughout the years. Five participants were at home or in other parts of the city when they first heard of this critical incident. One participant was at the concert with their first responder. Without exception, all of the participants were stunned upon hearing of the mass shooting. None, however, realized that this event would eventually be understood to be a mass shooting. P01 shared, “But I remember ... my mother ... woke me up. She was watching the news, and then they talked about the shooting ... I don’t know; it was just all a shock. While P05 experienced,

[The following day] I got an opportunity to look at my text, turn on the morning news, and see what happened. [My] mouth dropped. I got scared. I tried to call my [spouse] as many times as I could, and [there was] no answer at that time. And I had to carry myself to work listening to the news trying to stream it on the phone at the same time. And just hearing how bad [the] situation [was] and still hadn’t gotten the opportunity to talk to [them]. ... at some point, [they] did make it home somewhere a little after [their] shift or not long after I was already working and [finally got to talk with them].

Another couple's experience was different. They had gone to the concert with their first responder spouse. They had just gotten back from a relaxing and rejuvenating vacation overseas. Being in a Zen-like, happy space, this couple was startled out of their joy:

We had gone to all three nights, and that was our third night ... we'd parked at the Tropicana Hotel ... we were excited because we had bought a real pretty dream catcher from one of the vendors and [were] very excited to be there. Just partying, having fun drinking, [and listening] to good music... We were ... in the middle of the crowd, kind of near the center ... [I had gone] to the bathroom and made it all the way back. And that's when I remember it like happening pretty quickly after that. I thought it was [someone] around us ... who was lighting off fireworks ... [I thought,] 'Why would you do that at a concert ... [that is] so messed up ... shortly after that, it happened again ... the second volley of rounds came off ... people are in danger now ... I remember crawling ... [I got confused] 'Where is my [spouse] ... where is my car?' ... Panic set in.

As the body of research grows, researchers should pay attention to determine if replication is consistent. If further insights are garnered, they should be added to the body of literature. Also, researchers should contextualize (not theorize) with other events and see if the findings remain true. Practitioners need to pay attention to the nuanced reactions and look for the initial reactions to a traumatic event, whether with primary or secondary exposure, as described by the research, to be sure nothing is overlooked.

Furthermore, practitioners ought to interface with first responder agencies to remind them that their employees, the first responders, are not the only ones impacted by critical incidents.

### **Jump to Action**

Notably, before asking the participants about their reactions after hearing of the mass shooting, I asked about the empathic abilities that they believed they had prior to the mass shooting. Without exception, all the participants described themselves, using various adjectives, as being kind, sensitive, compassionate, helpful, and loving. These perceptions did not change after the incident but rather were enhanced.

Figley (1995), Guenette (2019), and Meckes et al. (2021) spoke to induced arousal. Guenette (2019) expressed that critical incidents create “a state of cognitive, physical, emotional, and behavioral arousal that accompanies the crisis reaction” (p. 4). Additionally, compassion satisfaction is also associated with trauma exposure (Meckes et al., 2021). Stress tends to inspire action to ameliorate helplessness. Figley and Ludick (2017) said that stress brings a sense of a demand for action: “Compassion stress is the demand to be compassionate and effective in helping” (p. 574). Consequently, the participants felt the need to be proactive in helping others, especially the community at large.

When P02 went to the movies that Sunday evening with their family, their first responder spouse received multiple text messages. They only had time to say that there was an emergency. When it was ultimately discovered that an active shooter (or more)

was at the Route 91 Harvest Festival, this participant also experienced shock. However, the next day, P02 leaped into action:

When tragedies happen, in general, or if somebody is hurting, I am just that type to ask, ‘How can I help?’ ... I went right to work. I think I played a really pinnacle role in the relief efforts of October 1<sup>st</sup>. ... [I put out a social media message] to start collecting snacks and water donations to supply [our first responders] during this time. ... I fed our [many of our first responder agencies] for weeks. Within one day, we filled a 27-foot trailer and probably another dozen other vehicles with food, snacks, and water donations. I had helpers; my door was a revolving door for about five days straight. Constant people coming, dropping off, and picking up.

P06 later organized a t-shirt drive to garner funds to use as needed for their community, whether within the agency or outwardly to the community at large. P04 worked with their co-workers, who “stepped up and did what they could do to help” each other to withstand the “darkness” that the community had encountered and hopefully disperse the “heaviness” that was initially felt. The vast majority of the participants sharpened their focus and attention to the immediate needs of their own family, especially their children, to maintain normalcy. Reiterating Figley and Ludick (2017), “Stress is a sense of demand for action. When we feel stress, we sense that action is demanded of us – in this case, helping [others]. Compassion stress is the demand to be compassionate and effective in helping” (p. 574).

Researchers must continue to see if empathic abilities correlate with actions subsequent to traumatic events, keeping the research relevant. Additionally, practitioners should assess their empathic abilities so that attention can be given to burnout or compassion fatigue (see Ludick & Figley, 2017, pp. 112-113; see Figure 3).

### **Waiting**

All participants experienced a waiting period between hearing about the active shooter incident and hearing from their first responder spouse, a concept not explicitly identified in the literature but certainly implied. The waiting was not mutually exclusive of the other themes of initial shock and jumping into action. Shock, confusion, and determining how to help while they waited were common occurrences among many participants.

For example, P02 described that not only did their first responder spouse not come home for nearly 24 hours, but they also had a friend in the line of fire with whom they spoke on the phone, helping that friend to get out. However, they never went to sleep that night in this waiting phase. P03 expressed their waiting this way: Their first responder spouse typically had Sunday nights off, so they went to bed early that night. Not long after, both of their cells started ringing, and the house phone began to ring. Once their spouse left for the active shooter situation, this participant did not hear from their spouse for several hours. P03 explained, "I [cared] that my [spouse] was okay, [as well as others I knew were helping out]." P03 began to monitor various media outlets for more information, "You can't trust what you hear." Finally, this participant received a

text from their spouse telling them they were okay, “a very minimal conversation” consisting of very little knowledge of all the facts.

### **The Return Home**

Eventually, the first responders returned to their homes. Universally among the participants, the first responders were put on emergency staffing and were required to return to work without a break from the initial exposure to this critical incident.

Papazoglou (2016) highlighted the transition home from a shift that may have been fraught with stressful and often life-threatening calls. The first responder may wish to remain aloof, feeling overwhelmed by family issues. Pooley and Turns (2022) explored the biological impact of work stressors, arguing that to bring balance back internally, there may be a “lack of reciprocity” in their familial relationships. Spouses may then be secondary victims of their first responders’ work stressors. The number one cause of work-related stress is that dangerous situations are often encountered.

Many spouses acknowledged the strain of the first encounter. P01 shared, “By the time [my spouse] got home, I had to leave within 15-20 minutes.” They went on to say that when they were at work, about four hours into their shift, the first responder called them, having broken down, describing them as having a broken heart. P03 described both returning home from their jobs, realizing that the first responder was “in the fabric” of the tragic event. “I feel very humbled to hear all” of what transpired with their first responder.



The participants' experiences echoed the findings of the research. There were no significant deviations from what was already known within the literature. While researchers like Papazoglou (2016) and Alrutz et al. (2020) may have uncovered different manifestations of the impact on first responders' marital and family relationships, the collective body of research on primary and secondary trauma presents a unified perspective. This coherence not only validates the research but also provides substantial insights and directions for practitioners, going beyond mere academic discourse.

Some researchers developed models that could provide a visual application to an otherwise tricky assessment of a spouse's experience. Bachem et al. (2021) coordinated much of the research into a model called the Systemic Cognitive-Behavioral Interpersonal Model of Posttraumatic Stress Disorder (p. 151; see Figure 2). Another dynamic model mentioned before was created by Ludick and Figley (2017) called the Compassion Fatigue Resilience (CFR) model (pp. 112-113; see Figure 3). An understanding of models such as these, which have synthesized the literature, can help practitioners develop therapy plans and provide them with succinct insights into the research.

### **Secondary Trauma**

Casas and Benuto (2022) pointed out that with all the extant literature regarding the impact of a first responder's exposure to traumatic events and the inherent hazards of their job, very little research has been pursued relative to spillover to their families. While research certainly shines the light on the influence that first responders' families have on

the positive outcomes of the families' support of their first responder, it is needful for further research on possible secondary trauma that the families may experience. Casas and Benuto also made the connection that "common outcomes included STS, coping, support, and psychopathology" (p. 2014). Furthermore, the spouse may "assume a more supportive role for their partner, sometimes at the expense of their own comfort and wellness" (p. 214).

Back in 1995, Figley, a renowned researcher who coined the term 'vicarious trauma' acknowledged the fact that "there is a cost to caring, both to the 'victims' as well as to the professionals (Figley, 1995, p. 1, 4). Figley and Ludick (2017) highlighted that "among the conclusions of those who study this phenomenon in family systems were that families can both breed and ameliorate stress among their members and that PTSD spreads in the family like a virus unless families have effective ways to cope" (p. 576). P06, who happened to be at the concert, which created an added dynamic to the healing process, has suffered much primary trauma. This has exasperated the influx of the first responder's primary trauma upon the marital relationship:

I still felt abandoned [by my first responder spouse when they went into a saving others mode], it opened up a childhood wound of feeling abandoned by the men in my life. And how can I ever trust, how can I ever ... all of these things fuel other layers of things in your relationship. Because you know, now you have this door open that you [have] got to go through. And so ... I think that my [spouse] and I have probably beat all odds ... I think in every statistic, we should be

divorced ... based on everything that we've gone through. But I don't know, we're not designed to give up on [each other].

P05, who described their family relationships as being focused on loving each other and their main effort was to protect the family unit, felt that they did not have symptoms of posttraumatic stress, such as burnout or fatigue. However, their main focus was on their first responder spouse and providing that spouse with comfort and space to decompress. Another participant felt that their use of various self-care tools, such as meditation, yoga, and other physical outlets, helped to mitigate any lasting effects of trauma exposure.

Figley (1995) referred back to his earlier work, where he identified several "interpersonal networks," acknowledging that within these networks, several members could be traumatized out of concern for someone who is suffering (p. 5). Figley further discussed the processes of secondary trauma, which he would eventually coin as vicarious trauma, an infection of "the entire system after first appearing in only one member" (p. 5).

Researchers must continue to delve into the effects of trauma among the families of first responders. It cannot be overstated that the summation of Porter and Henriksen's (2016) research argued that, while there is much research in the first responder arena, "there is a definite gap in the literature in regards to the spouses or committed partners of first responders" (p. 45). Practitioners need to continue to be mindful of the whole of the familial system especially if they work initially with the first responder. As Regehr (2005) emphatically stated, "The support of family is paramount to reducing the impact

of highly stressful work on emergency responders” (p. 98). Regehr further indicated that there is a negative correlation between support from the various first responders’ relationships and trauma symptomology. Consequently, the more positive support there is, the less likely event a first responder would need time off work for mental health stress. But make no mistake about it, family members are “not immune from the stresses encountered by their loved ones” (Regehr, 2005, p. 98).

As research continues in the realm of trauma, vicarious trauma, and its impact on the family systems, the sentiment of the correlation between a first responder’s exposure to traumatic events, familial relationships, and the interplay between spouse and first responder (both positive and negative) continues to be substantiated. Rennebohm et al. (2023) argued that first responders must strengthen and add to their coping skills “repertoire ... and the flexibility with which they use them to match the social and emotional setting” (p. 8). The authors also emphasized that effective marital approaches should be added to help the first responder and their spouse in navigating the difficulties trauma exposure presents in a relationship; for example, “vulnerable emotional disclosure, seeking an emotional connection, problem-solving, or disengaging/compartmentalizing” (p. 8).

Therefore, practitioners would do well to remain current and well-versed in the literature by keeping their continuing education credits in relevant areas up to date. Reading professional journals certainly would be beneficial. To this point, on a personal note, when my first husband was very sick, the oncologist was unable to find any

underlying cause of his tests and biopsies. One evening, the doctor went home and read a medical journal (in German) that had just arrived. He read about a rare form of cancer that had just been discovered and recognized that my husband had every symptom and test result that this rare form of cancer indicated. There were only two labs in the United States that could properly test these biopsies – Stanford University and Walter Reed National Military Medical Center. Stanford University was able to test the biopsies quickly. Sure enough, my husband had this rare form of cancer. Because the oncologist was current on the literature and desired to continually hone his craft with newly founded research, my husband was able to receive critical care that extended his quality of life for several months. Those extra months afforded him time to finish up the desires of his life. When he died, he left no unfinished business. This is my personal testimony of practicing one's craft with integrity and fidelity. It makes a difference ... sometimes a critical difference.

### **Continued Capacity for Compassion**

Shellenbarger wrote an article for the Wall Street Journal (29 Nov 2000) arguing that “many spouses make the mistake of blaming their partner for failing to help them ease their stress” when something as simple as having dedicated decompression time can help in “chilling out” (p. 3). Though such an approach is “a solitary exercise,” it may consist of meditation, physical exercise, reading the newspaper, or watching television (p. 3).

Other researchers, such as Day et al. (2017) identified “five key determinants of compassion fatigue [as being] empathy, exposure, poor self-care, inability or refusal to manage work stressors, and dissatisfaction with ... work” (p. 270). Day et al. also identified a “related phenomenon, vicarious resilience, [which] bears witness to the remarkable strength and resilience seen in trauma survivors” (p. 270). This would imply, as well, vicarious trauma survivors. Figley and Ludick (2017) reiterated that their research continues to underscore that there needs to be “an increased focus” and the whole family system with the intention of strengthening the family’s “capacity for resilience in both managing the crisis and preventing events from becoming crises” (pp. 576-577).

Landers et al. (2020) pointed out that spouses of first responders may also experience secondary trauma when a first responder is exposed to a critical incident; specifically, “secondary traumatic stress emerges from the spouses’ empathy toward and contact with their spouse” (p. 310). Each participant described how their capacity for empathy was demonstrated prior to the mass shooting event. All participants felt they were sensitive, kind, and empathic towards others.

P04 described their profession as one that not only required empathy but also further developed empathy: “I had a good foundation because I was already a nurse for about four years.” P02’s description included, “I have always been called an empath [by] a lot of people ... I think I have, I don’t know what the word is, like spiritual senses almost.” P05 simply said, “Within the confines of my home, [there] is nothing, nothing

but love!” Descriptives such as caring, helping others, and being someone easily confided in were used to emphasize their empathic abilities. Finally, P06 shared that before the mass shooting event, they were in the “most Zen-like state of [their] life ... a happy, calm, ready to take on life mentality ... feeling empathic towards the world and people.”

Much of the literature dealt with scientific intricacies, before and after study correlations, and so forth. However, my research was a phenomenological qualitative study. Based on the questions of empathetic capabilities before and after the mass shooting event, many participants recognized within themselves that their empathy or compassion seemed to intensify, bringing things into sharper focus. Only one participant felt that their compassionate abilities, being strong before, remained the same after the event. P03 aptly described:

[This event reinforced] that you should live your best life because we don't know what the future is ... I'm just a person who thinks that we're just growing every single day and every life experience is something that we just learn from.

P01 acknowledged that while this traumatic event elicited deep and painful emotions, there was “increased togetherness ... [better] communication, [conscious] caring for each other ... healing.” Most participants attributed their post-resilience and any transformation to that of a higher power, some calling that power God. If a participant named God as their source of strength, they assured me, the interviewer, that they could not have endured and overcome without divine presence or intervention. This theocentric view of God and the positive view of surviving this traumatic event seems to validate

Muldoon et al.'s (2019) view that not all traumatic events have a lingering reaction developing into PTSD, confirmed:

[T]heir understanding of the literature suggested: there is a growing awareness that traumatic events do not always have adverse psychological sequelae ... the vast majority of individuals exposed to violent or life-threatening events do not go on to develop post-traumatic stress disorder (PTSD). Many experience short-lived or subclinical stress reactions, but these symptoms often abate spontaneously. (p. 311)

The participants identified several reactions that seemed to remain with them, though mildly. For example, all of them expressed some form of emotion as they answered the interview questions, with some being moved to tears. Also, all described being hypervigilant, looking for exits in buildings, and expressing a dislike for large and loud crowds. However, this did not impede their ability to go out in public nor impact their enjoyment of their life's activities. In support of this outcome, Greinacher et al. (2019) concurred that there certainly may be intrusive thoughts and memories, avoidance of triggering places or events, and arousal when triggered. However, Smirnova et al. (2021) pointed out that a positive outcome could be cohesion with others and a sense of belonging with others in this shared trauma and shared resilience.

Recently, Wesarg-Menzel et al. (2024) outlined some of the highlights of their research: trauma was positively related to PTSD symptoms when individuals had low compassion "when compared to high levels of behavioral compassion" (p. 1). The



participant who was at the concert certainly experienced responses similar to the other participants; however, they also struggled with the effects of primary traumatization because of the close proximity, as expressed earlier. Their transformative process included input from a close circle of friends and family, and especially the use of therapy in coming to terms with what had happened to them and their spouse. This participant reported that the healing process did not help them go back to what they once were but instead transformed them into a new and better version of themselves, which is still in progress.

As is always the case, continued research is needed to expand awareness of the nuances that arise in various types of traumatic events, both with primary and secondary trauma reactions. It cannot be overstated enough that practitioners must stay apprised of developing research and its implications for trauma-informed therapy and protocols.

### **Limitations of the Study**

Anderson (2010) argued the strengths and limitations of qualitative research. Some of the strengths included are that concrete initial interview questions can be followed up with real-time clarifying questions. Also, “subtleties and complexities about the research subjects and/or topic are discovered that are often missed” (Anderson, 2010, p. 2). Contrasting the strengths with limitations, Anderson (2010) pointed out that the researcher’s interviewing skillset may be “more easily influenced by the researcher’s personal biases and idiosyncrasies” (p. 2). Additionally, “the volume of data makes analysis and interpretation time-consuming” (Anderson, 2010, p. 2).

Anderson (2010) described many of the issues I encountered. First and foremost, I am a member of the Las Vegas community. I was living there at the time of the October 1, 2017, Las Vegas mass shooting. I, too, was riveted to the news accounts of what might be happening and what eventually actually happened. Because of the love I have for the Las Vegas community and my experience of the community's resilient nature (leading to the moniker, Vegas Strong), it was imperative that I check my biases, expectations, and ego at the proverbial door. To do that, I limited my comments and focused diligently on what the participants said and how they said it. I reviewed the transcripts in depth to capture what I may have missed initially. As I coded, I became aware of the subtle changes in my perspective. I intentionally allowed for similarities between the participants' descriptions to support the eventual code, as well as the concluded themes.

Another limitation that may be labeled is that of the population sample. Cypress (2018) indicated that "processes of sampling, data collection, and analysis are concurrent and continued until saturation is achieved" (p. 303). Saldaña (2016) concurred that saturation is met when no new information or patterns emerge. By the interview of the sixth participant, while different adjectives may have been used to describe similar reactions, processes, and outcomes, I believed saturation had occurred. This was supported by my dissertation committee's second member.

While I am considered a member of the first responder community, my professional capacity is that of support staff for the Southern Nevada Human Trafficking Task Force, whose convenor is the Las Vegas Metropolitan Police Force. Of the six

participants, only two were previously known to me. The others came from recommendations from other points of contact. My professional position did not compel any to participate; however, I found that my profession seemed to put the participants at ease because of a seeming commonality, though not explicitly expressed. Perhaps this may be deemed as a limitation, though I found it a strength.

### **Recommendations for Future Practice**

As a result of my dissertation research, I have developed several recommendations. Without question, as thoroughly discussed previously, researchers must continue to study not only the first responder population, but the as equally critical family population as it relates to the first responder and the dynamics of their job. Additional findings will increase the robust understanding of the consequences of being a first responder and a first responder spouse or family member. The composite of the findings can inform practitioners.

These practitioners will come into contact with first responders and their family members at some point in their careers. In finding participants for my research, I often encountered resistance from the first responder agency I contacted. Until there was an understanding of the exact nature of my research inquiries and my intended use for that information, access to some spouses remained elusive. I surmise that a similar resistance may be felt by first responders and their families in seeking help. SAMHSA (2018) agreed that first responders are at the “forefront of each incident or disaster, and they ensure the safety and well-being of [others]” but warns that there are perceived “barriers

to seeking help, including stigma and the cost of treatment” (p. 5, 12). SAMHSA recommended that “a cooperative effort is needed between organizational leadership and coworkers to establish a work environment that provides adequate training and ensures the resiliency and health of first responders” (p. 12).

Each participant acknowledged that their first responder’s agencies had mental health resources. However, without exception, the first responder did not take advantage of them. More importantly in the context of this research, no organization made specific efforts to provide those resources directly to the spouses. One spouse said that they vaguely recalled that perhaps three therapy sessions could be accessed, but they were unclear as to that information. That is not to say that the various agencies did not have protocols in place for these families affected by the tragedy of this mass shooting. It simply was either not conveyed through the first responder to their spouse, or that the spouse was not expressly offered resources. Only one spouse sought an independent therapeutic resource which they described as being invaluable and not limited to a set number of sessions. I have, therefore, concluded that there needs to be a re-evaluation of an agency’s mental health resources and that there be a proactive, rather than a passive, approach in offerings to first responders and directly to their spouses.

Recommendations for practitioners included remaining apprised of the current research, especially in their area of expertise. Also, continuing education in their expertise and new frontiers of learning remains imperative. Of course, a quintessential practitioner remains humble, keeps their biases in check, and truly listens intently,

especially to what is not said. It will be the research and literature that will assist in understanding what is said and not said and how best to proceed.

### **Implications for Future Research**

First responders and their respective agencies will probably remain as our first point of contact in emergency and disastrous situations. Crowe et al. (2017), agreeing with so many of those who perform research regarding first responders, described first responders at the forefront of “emergencies, natural disasters, and other traumatic events ... [requiring the performance of] critical tasks, which may affect mental and physical well-being” (p. 1). Many of those first responders “might require them to seek support from professionals to cope with the demands they are experiencing as a professional,” however, the research shows the resistance that first responders have in “seeking formal assistance for mental health concerns” (Crowe et al., 2017, p. 1).

First responders tend to have a cohesive sense of belonging inherent in their occupation. However, the first responders are “not the only ones experiencing ... pain and struggle (Pooley & Turns, 2022, p. 178). Some of the participants acknowledged the camaraderie but found themselves isolated from that strength, feeling alone in their struggle to work through the effects of the mass shooting. Yet, as Porter and Henriksen (2016) reported, there is a lack of sufficient research dedicated to such an impact on the spouses of first responders. Therefore, this dissertation study supports what is already understood, but adds further insight as previously described. Furthermore, unique to the Las Vegas community, this research can inform agency leaders how awareness of the job

of a first responder impacts the spouse or partner, and putting protocols in place to help strengthen the familial relationship will assist in keeping their first responders safe, not only physically, but mentally and emotionally as well.

### **Social Change Implications**

Walden University, of which I am a proud doctoral candidate, is renowned for its social change vision for its students (see Walden University, Social Change). As I invested and toiled throughout the data collection and findings processes, I became aware of the social challenges this population of first responder spouses faced. Feeling isolated from the agencies and their resources, each participant acknowledged a lack of direct offerings of resources. Therefore, I choose to disseminate some of my findings, especially surrounding their isolation, to agency heads, hoping that this effort might affect change to internal policies surrounding first responder families and traumatic events.

### **Conclusion**

The spouses of the first responders who helped the community during and in the wake of the October 1, 2017, Route 91 Harvest Festival mass shooting shared moving stories of their experiences. They bravely recounted intimate details that could only be gathered in a narrative interview platform. The participants described fear, confusion, and shock when they found out about the shooting, exacerbated by the fact their first responder may be in harm's way. They further articulated the pathway through their

reactions and subsequent healing processes. Universally, the participants were grateful to be given a means to voice these experiences.

Each participant provided an insightful and eloquent recounting of their experience, emphasizing that they had never before been given a platform with which to recount their story, explore the before-and-after of their way of being, and offer up a solution for how to proceed in the future. While there were resources in place in the various agencies, the spouses were not reached out to directly with these resource offerings. Just as it may be for first responders, offering resources does not imply that the spouse will take advantage of those resources.

First responders' spouses/partners are often overlooked when assessing the aftermath of a critical incident and its sometimes destructive impact. As a social change initiative, it would behoove first responder agencies to provide a direct offering of resources, as a matter of course, to these spouses. These agencies need to understand the family dynamic of the spousal relationship. When that relationship is considered, the emotional and mental strength of the first responder can be enhanced and strengthened, translating to safety on the streets and resilience from traumatic events.

It is my intention to create an abstract, though not a part of the dissertation requirements, and personally deliver it to those first responder agency heads so that they are informed of what happened to spouses in the aftermath of this specific mass shooting. Perhaps, then, internal social change may occur, creating a stronger, more dynamic first-responder community.

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### Appendix A: Interview Protocol

**RQ1.** What are the lived experiences of the spouses (or partners) of the first responders on duty on October 1, 2017, who responded to the Las Vegas mass shooting that occurred on the final night of the Route 91 Harvest Festival?

This research question is supported by sub-questions such as:

- A. How did the spouse first hear about the mass shooting?
- B. How long before the spouse heard from their first responder?
- C. What happened in the subsequent days, weeks, and months?
- D. What services were used by the first responder and their families for healing?
- E. How are the couples doing now, five years later?

## Appendix B: Interest/Recruitment Message

## Recruitment Email/Letter

Dear [Name]:

Hello, my name is Kareen Benson, a doctoral candidate with Walden University. I am conducting a research study on the lived experiences of first responder spouses/significant others incident to the October 1, 2017, Las Vegas mass shooting. Participation will take approximately one hour in a face-to-face interview (or via Zoom is needed). If you are interested in participating, please contact me. There are minimal or no known risks involved in this research. If uncomfortable feelings arise during the course of the interview, a list of mental health resources will be provided at the end of the interview.

If you express interest, a follow-up email with further information and instructions will be forthcoming.

If you have any questions, please let me know.

Via email – [XXX@waldenu.edu](mailto:XXX@waldenu.edu) – or via phone at XXX. I reside in Las Vegas, Nevada.

## Appendix C: Participant Follow-Up Email

Dear [First Name]:

I ultimately had six interviews and reached saturation, implying that the same themes began to recur. Therefore, I want to reach out to you and share the themes that emerged from the interviews. Eight themes and several subthemes became prominent throughout the recounting of all participants.

✚ Initial Shock

- ☆ Disbelief
- ☆ Dissociation
- ☆ Well-Grounded Worry

✚ Jump to Action

- ☆ Toward Family and Home
- ☆ Toward First Responder Family
- ☆ Toward Saving Oneself

✚ Waiting

- ☆ Waiting for Word of Their Spouse
- ☆ Waiting for Word About the Spouses of Other First Responders
- ☆ Dissonance of Home Life

✚ The Return Home

- ☆ I'm Fine; Leave Me Alone
- ☆ Return to Normal Life

✚ Secondary Trauma

- ☆ PTSD
- ☆ Hypervigilance
- ☆ Avoidance

✚ Continued Capacity for Compassion

- ☆ More In The Moment
- ☆ More Open and Vulnerable

✚ More Resilience

- ☆ Drawing on “Something Bigger” Than Themselves
- ☆ Owning Post-traumatic Growth
- ☆ Drawing on Well-Tested Strength

It needs to be noted that each participant had different perspectives and experiences.

However, I noticed that similar adjectives and concerns emerged from every participant.

Also, note that you may not have experienced or articulated each subtheme.

I am so grateful for your help, courage, insight, and generosity in sharing your time with me. If you need anything, please feel free to text me at XXX or email me at XXX@waldenu.edu. On a hopeful note, I hope to have finished my dissertation and graduate by mid-August. Then I will be celebrating.

As listed on the recruitment documents, I repeat the resources here:

- Resources Law Enforcement: <https://www.lvmpd.com/en-us/peap/Pages/default.aspx>
- Fire Fighters: <https://www.ffbha.org/>
- Emergency Room personnel: [https://www.clarkcountynv.gov/top\\_services/covid19/mental\\_health\\_.php](https://www.clarkcountynv.gov/top_services/covid19/mental_health_.php)
- All first responders: <https://www.vegasstrongrc.org/responder/> Family support: <https://www.nami.org/Your-Journey/Frontline-Professionals/Public-Safety-Professionals/Family-Support>
- For Immediate Need: [988lifeline.org](https://www.988lifeline.org) OR 988.

In gratitude and respect,

Kareen LaRae Benson

Doctoral Candidate

Walden University

## Appendix D: Permissions Granted

**Letter Requesting Permission for Figure 1**

Hello!

My name is Kareen Benson. I am a doctoral candidate in Forensic Psychology at Walden University. Being in the dissertation phase, I am now writing/revising my Proposal (Ch 1-3). My topic/purpose is: What are the lived experiences of the spouses/partners of first responders on duty during the October 1, 2017, Las Vegas mass shooting?

Mass shooting history and vicarious trauma cradle this event and its subsequent fallout for these spouses. I am writing you to seek permission to use one of your figures found in the below article. I have researched my University requirements in conjunction with the Copyright Fair Act (see Section 107). There are no specific forms my university requires in seeking permission. Honestly, I do not know if what I am asking for (use of a figure) falls under Fair Use as understood by you or your professional affiliation.

Therefore, let me address the four aspects required to use a figure via Fair Use:

1. *The purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes.* The purpose and character of the use is to succinctly convey an aspect of the concept or issue I am conveying in my dissertation.
2. *The nature of the copyrighted work.* The figure I am interested in is used in your article for descriptive purposes.
3. *The amount and substantiality of the portion used in relation to the copyrighted work as a whole.* I only wish to use that specific table. In describing the figure, I will synthesize your intent for that figure and its meaning.
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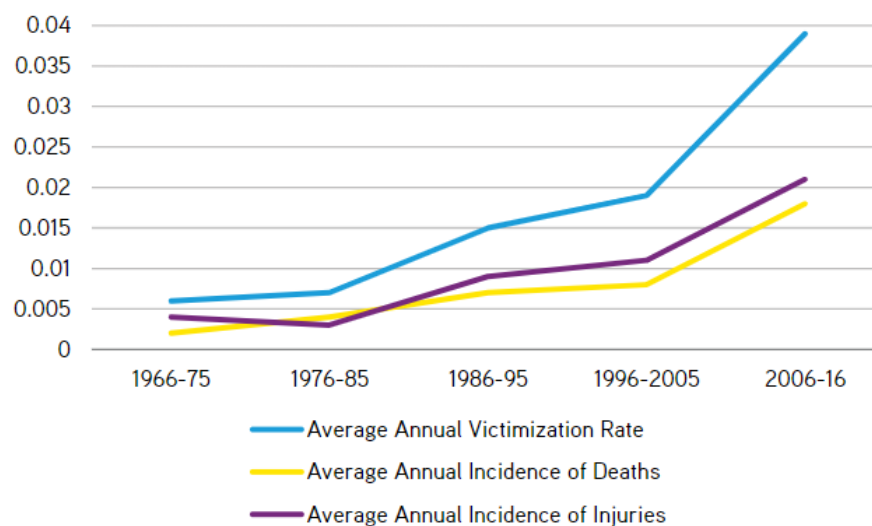
Thank you for reading this far! I wish to respect your work and exhibit integrity in mine.

The article is:

Schildkraut, J., Formica, M. K., & Malatras, J. (2018). Can mass shootings be stopped?

To address the problem, we must better understand the phenomenon. *Rockefeller Institute of Government – Policy Brief*. 1-16. On page 13, I would like to use the following figure to showcase the increased incidences.

FIGURE 8. Average Annual Incidence Rates of Victimization Due to Mass Shootings by Decade



Thank you for your time and consideration.

Sincerely,

Kareen Benson

Doctoral Candidate

Forensic Psychology – Walden University



**Letter Receiving Permission for Figure 1**

Tuesday 9/20/2022 1:07 p.m.

Hi Kareen,

I have followed up with the folks at Rockefeller. We will grant you permission to use this figure, if appropriately cited, in your dissertation only. Please note that this figure cannot be reproduced for another purposes, including peer-reviewed publication, without further review and permissions by our team.

Please let me/us know if you have any questions.

Thanks,

Jackie

**Jaclyn Schildkraut, PhD**

Associate Professor

Department of Criminal Justice

**State University of New York at Oswego**

## Letter Requesting Permission for Figure 2

Dear Dr. Bachem:

Hello! I hope I addressed you correctly!

My name is Kareen Benson. I am a doctoral candidate in Forensic Psychology at Walden University. Being in the dissertation phase, I am now writing/revising my Proposal (Ch 1-3). My topic/purpose is: What are the lived experiences of the spouses/partners of first responders on duty during the October 1, 2017, Las Vegas mass shooting?

Mass shooting history and vicarious trauma cradle this event and its subsequent fallout for these spouses. I am writing you to seek permission to use one of your figures found in the below article. I have researched my University requirements in conjunction with the Copyright Fair Act (see Section 107). There are no specific forms my university requires in seeking permission. Honestly, I do not know if what I am asking for (use of a figure) falls under Fair Use as understood by you or your professional affiliation.

Therefore, let me address the four aspects required to use a figure via Fair Use:

1. *The purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes.* The purpose and character of the use is to succinctly convey an aspect of the concept or issue I am conveying in my dissertation.
2. *The nature of the copyrighted work.* The figure I am interested in is used in your article for descriptive purposes.
3. *The amount and substantiality of the portion used in relation to the copyrighted work as a whole.* I only wish to use that specific table. In describing the figure, I will synthesize your intent for that figure and its meaning.
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Thank you for reading this far! I wish to respect your work and exhibit integrity in mine.

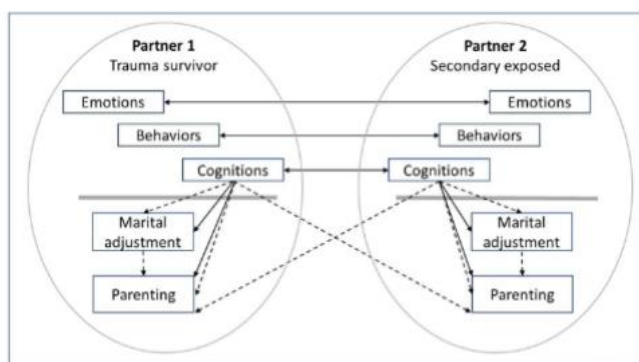
The article is:

Bachem, R., Levin, Y., Stein, J. Y., & Solomon, Z. (2021). Families in the shadow of traumatic experiences: Negative world assumptions and family relationships. *Journal of Traumatic Stress, 34*, 149-160. Found on page 151, the figure I wish to use is:

Negative World Assumptions and Family Relationships

151

**Figure 1**  
Systemic Cognitive-Behavioral Interpersonal Model of Posttraumatic Stress Disorder



Thank you for your time and consideration.

Sincerely,

Karen Benson

Doctoral Candidate

Forensic Psychology – Walden University

**Letter Receiving Permission for Figure 2**

Tuesday, 9/20/2022 11:55 p.m.

Dear Kareen

This sounds like interesting and important research!

From my side you are very welcome to use the figure in your thesis. You may, however, have to check with the journal that holds the copyright to the article whether this is okay. Please check the JTS website or contact the journal with your request.

Best wishes,  
Rahel

NOTE: I laid out my request to the Journal in question; after several attempts, I received no response. I used all proper citations.

### Letter Requesting Permission for Figure 3

Dear Dr. Ludick:

Hello!

My name is Karen Benson. I am a doctoral candidate in Forensic Psychology at Walden University. Being in the dissertation phase, I am now writing/revising my Proposal (Ch 1-3). My topic/purpose is: What are the lived experiences of the spouses/partners of first responders on duty during the October 1, 2017, Las Vegas mass shooting?

Mass shooting history and vicarious trauma cradle this event and its subsequent fallout for these spouses. I am writing you to seek permission to use one of your figures found in the below article. I have researched my University requirements in conjunction with the Copyright Fair Act (see Section 107). There are no specific forms my university requires in seeking permission. Honestly, I do not know if what I am asking for (use of a figure) falls under Fair Use as understood by you or your professional affiliation.

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2. *The nature of the copyrighted work.* The figure I am interested in is used in your article for descriptive purposes.
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4. *The effect of the use upon the potential market for or value of the copyrighted work.* The use of the figure is only for my dissertation, a not-for-profit venture. My dissertation is subject to limited publication per university protocol and not-for-profit distribution.

Thank you for reading this far! I wish to respect your work and exhibit integrity in mine.

The article is:

Ludick, M., & Figley, C. (2017). Toward a mechanism for secondary trauma induction and reduction: Reimagining of a theory of secondary traumatic stress. *Traumatology*, 23(1), 112-123. Found on page 114, I wish to use the following figure:

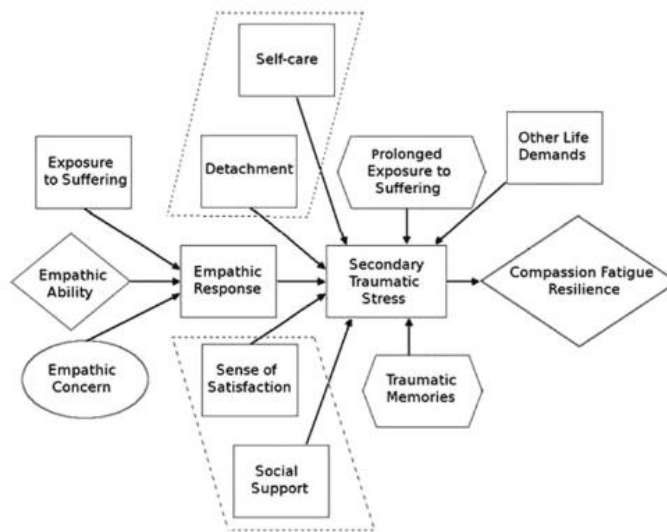


Figure 1. Compassion fatigue resilience model.

Thank you for your time and consideration.

Sincerely,

Kareen Benson

Doctoral Candidate

Forensic Psychology – Walden University

### Letter Receiving Permission for Figure 3

Dear Kareen,

Thank you for your email and your most respectful request. We are pleased that you have found our model useful and that you intend to make use of it. You are indeed covering a very interesting and important topic that is occupying many minds at present.

However, without further ado:

This email hereby grants you once off permission to use the model in your manuscript/dissertation, provided that the same conditions are met once again:

1. The model must be reproduced exactly as it appears in the Traumatology publication. If edited, it must be clearly indicated that it was adapted from the said publication.
2. Full acknowledgement of the title, authors, copyright and publisher must be stated to this effect:

Used with permission from Ludick, M. & Figley, C.R. (2017). Toward a Mechanism for Secondary Trauma Induction and Reduction: Reimagining a Theory of Secondary Traumatic Stress. *Traumatology*, 23(1), 112-123. Copyright © 2016 by the American Psychology Association.

3. You must reapply for permission for further publications/articles in which the model is to appear.

Best of luck with your research proposal and your PhD.

Warm regards

**Dr. Marné Ludick**

*BA Hons (Unisa) MA PhD (Wits)*

.....

*Psychology Researcher*

*Cell:*