



**A Social Work Approach: Working with
EMS Providers**

2 CE hours

PO Box 449
Pewaukee, WI 53072
(888) 564-9098
www.pdhtherapy.com

Instructor Biography

Sheila Gillespie Roth is a professor in the Department of Social Work at Carlow University. Dr. Roth received her bachelors and master's degrees in social work from the University of Pittsburgh, and her doctorate in Administration and Policy Studies from the University of Pittsburgh School of Education. Roth teaches courses such as Case Management, Families, Social Work with Groups, Theories and Methods of Practice, Crisis Intervention, and Death and Dying. Dr. Roth's research interests lie in several areas of practice. She has conducted research on work family fit in public safety; ethical dilemmas in end of life care settings; trauma informed care in residential settings; and more recently she has participated in research projects exploring vicarious trauma and compassion fatigue in crisis workers. Dr. Roth is actively involved with several regional public safety services.

Course Objectives

1. Participants will learn about the roles within emergency medical services.
2. Participants will increase their awareness about the impact that stress and critical incidents have on providers.
3. Participants will gain awareness about the impact of this profession on family life.
4. Participants will increase awareness of early intervention methods to assist providers with stress and processing trauma.
5. Participants will acquire knowledge of how to relate to EMS providers and their family systems.

Course Description

Working with emergency medical service (EMS) providers to create wellness can be a complex and delicate role. This course explores the EMS profession, the culture, and the challenge of creating a balance between work-life and home-life. Social workers, because of their Person-in-Environment focus, have a unique perspective on assisting EMS providers to work through difficult situations, and to develop a work life balance. This intermediate level course provides social workers with awareness of the roles within emergency medical services, and the impact that stress and critical incidents have on providers and their home life. Interventions are discussed to assist providers with pre-and post-incident interventions.



Final Exam

- 1) EMS providers generally work as
 - A. EMT's
 - B. Paramedics
 - C. EMT I's
 - D. All the above

- 2) Which of the following are certified to perform duties such as insert IV's, perform intubations, use cardiac monitors, and manual defibrillators.
 - A. EMT-B
 - B. Paramedic
 - C. All first responders
 - D. All the above

- 3) A stressful life event that overwhelms an individual's ability to cope is a
 - A. Critical incident
 - B. Crisis
 - C. Disaster
 - D. Compassion Fatigue

- 4) Compassion Fatigue is associated with having compassion without
 - A. Empathy
 - B. Interpersonal skills
 - C. Boundaries
 - D. None of the above

- 5) EMS provider wellness includes all the following except
 - A. Sleep hygiene
 - B. Regular physical exercise and healthy food
 - C. Interpersonal constriction
 - D. Good mental health practices

- 6) Scene safety is a concern in EMS. The most common type of physical threats are being punched, kicked, or struck with an object. What percentage of these types of incidents occur during provision of patient care?
 - A. 25%
 - B. 52%
 - C. 78%
 - D. 93%

- 7) EMS work creates safety concerns for providers and this set a tone to create self-protective emotional barriers. Issues can arise when the barriers do not come off. Examples include all except
- A. When the barrier is needed to complete a task.
 - B. When barriers can't be removed upon return home.
 - C. It becomes a part of the provider's personality.
 - D. It impedes patient/provider interaction on a call.
- 8) Somatic symptoms can be a common reaction to stress. Which of the following people was found to be the first point of contact regarding these types of symptoms?
- A. Therapist
 - B. Primary Care Physician
 - C. Supervisor at work
 - D. Employee Assistance professional
- 9) In general, predictors for Post-Traumatic Stress Disorder (PTSD) following trauma include:
- A. Nature, severity, and duration of the event and frequency of the trauma.
 - B. Type of event, number of people involved, time of year, duration of the event.
 - C. Duration of the event, frequency of event, intervention used
 - D. Nature of event, type of event, location of event, referral resources offered
- 10) In a 2015 survey of EMS providers (N=4,022) what percentage of providers reported that they had contemplated suicide?
- A. 10%
 - B. 22%
 - C. 37%
 - D. 43%
- 11) The national average reported by the Center for Disease Control (CDC) in a 2015 survey indicated that ____ percentage of people in the general population contemplated suicide?
- A. 3.7%
 - B. 12%
 - C. 37%
 - D. 42%
- 12) Behavioral Health professionals can assist EMS providers to regulate their emotions before, during, and following events by_____.
- A. increasing face to face time with a therapist
 - B. decreasing time on scene
 - C. increasing self-awareness and education about self-care tools.
 - D. increasing a therapeutic presence on the job

Attachment B-1

- 13) EMS providers who report feeling drained by their work, unappreciated and irritated by calls could be at risk for_____.
- A. a stress disorder
 - B. Compassion Fatigue
 - C. Depression
 - D. Emotional Supression
- 14) Family Systems thinking, a concept created by Murray Bowen focuses on what happened and how and when and where an event happened, rather than on ____.
- A. why it happened
 - B. who is involved
 - C. if it was an individual or group involved
 - D. the number of people present
- 15) Bowen says that “Emotional reactiveness in a family, or a group that lives or works together, goes from one member to another in a chain reaction pattern.” Therefore, in an EMS provider’s life experience
- A. the EMS provider’s life drives the family reaction.
 - B. the work system and family system do not relate to one another.
 - C. systems need to be kept separate.
 - D. the function of a providers family system can influence the provider’s work system or visa-versa.

Introduction to the Profession

Individuals who work as public safety providers include: emergency medical services (EMS), firefighters, law enforcement, and 911 telecommunications officers. These individuals are also often referred to as first responders. This course will focus on EMS providers.

Have you ever thought about what it takes to work in emergency medical services (EMS)? What EMS providers do as a part of their jobs? How this work impacts the providers, the people that they work closely with, and their families? This course will provide information and insight for social workers who choose to facilitate health and well-being within this population, with a goal of becoming more culturally competent.

EMS providers generally work as Emergency Medical Technicians (EMT), Emergency Medical Technician Intermediate (EMTI) or as Paramedics. An EMS worker's duties vary based upon his or her level of certification, or degree. EMS providers have the options to pursue a state certification, an associate's, bachelor's, or master's degree in the field. Duties generally include performing basic physical exams, assessing patients' level of trauma, and administering oxygen. More advanced EMS providers insert IVs, perform intubations, and use cardiac monitors and manual defibrillators and administer other approved medications. EMS workers are also called to work in disaster preparedness and response.

Exploration of Job Culture

Concepts and cultural ideas that are common among this group may vary by specific geographic regions, however, the culture of EMS does include its own unique set of characteristics. Culture can be defined as that which includes beliefs, morals, values, customs, world view, behaviors, and communication styles of a group (Webb, 2004). When social workers are called to

work with EMS providers, it is critical that they become educated about the job and group culture, and the ways in which the culture permeates the bio-psycho-social -spiritual aspects of the individuals within the group. A review of current literature and having worked with this population for the past 30 years, has demonstrated that to work in this field one must be able to function in high-stress environments. The job can be fast-paced and emotionally and physically demanding. EMS providers spend a lot of time moving and lifting patients and carrying heavy equipment such as stretchers and monitors. It is crucial for EMS providers to have good communication skills because they are constantly communicating with patients, families, and other healthcare staff. Many take on the role of preceptor in order to teach new EMTs' and paramedics on the job during clinical rotations. While in the ambulance one provider is often alone with the patient providing care and the other is driving to the hospital. As this is often an independent role in the back of the truck, the EMS provider is in contact with the hospital or command physician along the way. Therefore, a willingness to take direction from supervisors and the command physician is expected as a part of the job. EMS providers are also placed into high stress situations as an expectation of their job; and this work is done in an array of environmental elements (i.e., changing weather, difficult terrain, safety issues, violence, and health hazards), it requires shift work and often unpredictable or forced overtime.

Impact on the EMS Provider

Some of the terms that are frequently written about and discussed regarding the work of EMS providers are stress, crisis, critical incident, compassion fatigue, and secondary trauma. Flannery & Everly state that crisis is usually defined as a stressful life event that overwhelms an individual's ability to cope, critical incident is any event that has potential to lead to the necessity for a crisis response such as disasters, human acts of violence that might result in psychological trauma, mass incidents or other disruptive events (2000). Empathy is often thought to be a prerequisite for compassion and many people believe that to be compassionate is the key quality in helping. Figley (1995) discusses that the capacity for empathy is a risk factor that is concurrent with higher probability for compassion fatigue and vicarious trauma. Compassion fatigue is associated with having compassion without boundaries. It is critical for EMS workers to create appropriate boundaries with patient care as a form of compassionate caring with self-care built in. Overall, it is most important to recognize that crisis is in the eye of the beholder and listening to the EMS provider's perspective about a call is key to connect him or her to the best supports and coping techniques available.

So, what is important for the well-being of this population? One study on EMS provider wellness discussed the importance of both physical and mental wellbeing of the individual as a part of this mindset, stating that individual wellness includes sleep hygiene, regular physical exercise, a healthy diet, and good mental health practices (Patterson, Buysse, Weaver, Suffaletto, McManigle, Callaway, and Yealy, 2014). A mixed-methods study conducted by Roth, Reed, and Zurbuch (2008) with EMS providers and their spouses, identified paying attention to bio-psycho-social concerns such as (physical threats, health risks, coping skills, sources of stress, family issues, work with the public, and job satisfaction) that infiltrate their

daily lives as important for maintaining well-being. Physical concerns among the EMS workers surveyed demonstrated that over fifty percent stated that they had been injured on a call due to a patient's aggressiveness. Worry about physical threats was high with 79.3 percent of family members expressing concern and 64.5 percent of EMS providers expressing concern for self and co-workers. Physical threats are quite common in public safety overall, and in one study EMS providers stated that the most common types of physical assaults were being punched, kicked, and struck with an object by either patients or bystanders and 93 percent of the attacks occurred during patient care (Mechm, Dickson, Shofer, and Jaslow, 2002). Since this type of work creates safety concerns for providers it may set a tone for providers feeling hypervigilant and developing a protective emotional barrier to function on the job. Issues arise when that barrier remains in place, even after they return home from work, and it becomes a part of their personality. Suppression of emotion on a long term basis can lead to concerns on and off of the job, potentially impeding patient/provider interaction and family communication.

Health care risks are a concern because of the types of calls that EMS workers respond to. They are exposed to biohazards, environmental dangers, and unknown risks daily. In addition, providers are called to "non-urgent" medical calls where the social needs (i.e., poor living conditions, neglect, or isolation) of the patient are at greater risk than the physical needs, often having strong psychological impact (sadness, anger, frustration) on the provider. Both types of calls tend to go home with workers, at least from an emotional perspective.

As noted earlier, the majority of emergency medical services jobs require shift work. Shifts rotate and change according to one's role and how the agency that the provider works for creates the schedule. There are some agencies that rotate shifts monthly and others who do it weekly. Is there a risk to the provider's wellbeing related to shift work? Findings in several

studies addressed the risks and health differences between shift workers and non-shift workers such as more who smoke, risks of being overweight, and higher levels of stress (Kivimaki, Kuisma, Virtanen, and Elovainio, 2001; Kudielka, Kanel, Gander and Fischer, 2004; Lac and Chamoux, 2004). Shift work is a culprit in sleep disturbance which can bring with it a host of health issues as found in the work of Patterson, et al (2014). The contrast between the work life and home life of an EMS provider and that of a non- EMS employee with a traditional nine to five work schedules is highlighted by a lack of predictability including responding to various call types ranging from a person with a cold, to a fatal fire with multiple casualties, a homicide, or a mass causality incident. The time spent on each of these scenes will vary by call and will include a biological and emotional reaction, the possibility of prolonged time on scene, unscheduled or missed meals, and unpredictable bathroom breaks. All of this will occur within an uncontrolled environment (i.e., a home, the side of a road, or a hazard filled building). The work has been described by some providers as occasional hours of boredom followed by moments of organized chaos and terror.

Physical symptoms can be a common reaction to stress. The primary care physician's office may be the first stop for many providers. This creates interest around the relationship between the somatic experience of increased stress and a provider's reluctance to reach out for emotional or stress related supports. One study in the Journal of Traumatic Stress found, using meta-analysis, that PTSD was associated with greater frequency and severity of musculoskeletal, cardiorespiratory, gastrointestinal, and other physical complaints. Stating that individuals with PTSD may often go to their physician for medical symptoms before going for psychiatric or emotional help. This study also demonstrated that the number of somatic complaints were increased with PTSD symptoms regardless of the age of the first responder (Milligan-Saville,

Paterson, Harkness, Marsh, Dobson, Kemp, Bryant, and Harvey, 2017). In addition to increased somatic complaints as adults, the relationship between trauma and past experiences is profound as demonstrated by the Adverse Childhood Experiences Study (ACEs) which connected childhood adversity to chronic health conditions later in life. This calls to question the issue of health and the need to notice the number of providers leaving the job early or retiring due to poor health and chronic conditions. It is worth considering whether some of these health issues could be stress related and whether they might have been addressed sooner?

Repeated exposure to traumatic events can become toxic to the EMS provider both physically and emotionally which can place the individual at risk for compassion fatigue, vicarious trauma, or post-traumatic stress disorder. Interestingly, Dean, Gow, and Shakespeare-Finch (2003) found that the number of traumatic events a provider is exposed to does not by itself influence the amount of psychological stress, rather distress seems to come from the interaction between an event and the response related factors that follow it (“meaning made of it”).

Keep in mind, pre-event stressors don’t disappear, rather they are the foundation upon which the new events or critical incidents build. For example, if a responder is dealing with stressors at home (i.e., family illness, child or marital related issues, financial difficulties) before the critical incident or event occurs, it is possible that these types of work stressors and behavioral health issues can have an impact on family life (Roth, Reed & Zurbuch, 2008). Therefore, when we work with EMS providers, and their stress reactions, we need to consider the family environment as well as the identified work “event”.

Coping with stressors on the job and at home becomes a process for EMS providers, and they use a variety of tools to do it (some healthy and some not so healthy). Vettor, Kosinski &

Fererrick (2000) state that educational desensitization, humor, language, alteration, scientific fragmentation, escape further into work, and rationalization are all used to help public safety providers do their jobs. Self-regulation of emotions is another aspect of EMS culture whereas the provider maintains tight control of his or her emotions (an emotional barrier) which allows him or her to do the job. How might that emotional barrier look? Flannery and Everly (2000) who refer to this barrier as “emotional body armor” state that a traumatic event or critical incident can occur in the face of an actual or threatened event. Following these types of events, providers can experience disruptions of mastery within their environment, with their attachments to others, and in sustaining life purpose. In addition, reactions such as hypervigilance, sleep disturbances, intrusive recollections, and a tendency to withdraw from full participation in daily activities can occur. Take a few minutes and think of three examples of how these types of reactions could infiltrate into the Bio-Psycho-Social-Spiritual aspects of the EMS provider’s life. How might this surface during discussion in a clinician’s office as a presenting problem.

It may look like this:

1. I don’t know what’s wrong with me lately, I just don’t want to do anything.
2. My husband/wife made me come because he/she said I am not myself.
3. I have been on edge lately; I can’t stand being around people and their problems.

What is it like when one’s job requires responding to others when bad things happen?

The reality is that EMS providers are usually called to incidents where people are victims of some type of emotional or physical pain. This pain can be self-induced or inflicted by others; it can be intentional or accidental. That is the “normal” or “routine”, so to speak. The problem is that EMS providers are then vulnerable to emotional and psychological impact from these same calls. This vulnerability occurs by witnessing or listening to the traumatic experience as it

unfolds for the patient or their family and the awareness of this reaction may occur immediately or after returning to the station and coming off of automatic pilot. Thus, exposure to pain or trauma is ongoing and a routine part of the job. It is common that the degree of similarity from one's own life circumstances to a call can have great impact on a paramedic or EMT. Examples could include a paramedic with a small child responding to a call where a child of similar age is badly injured, or a patient that reminds the medic of an ill family member or resembles a friend. In general, child deaths or child maltreatment and line of duty deaths are commonly more difficult to process for most providers.

Predictors for Post-Traumatic Stress Disorder (PTSD) following trauma include; the nature of the event, the severity of the event, duration of the event, and the frequency of trauma. Furthermore, multiple previous traumas are a strong predictor of the development of PTSD, versus a single previous trauma. Peritraumatic distress, a term used to describe dissociation, is also suggested to be related to the severity of symptoms (Lee; Lee; Kim; Jeon; and Sim, 2017). Where does this place the risk for EMS providers? Lee, et al (2017) found in their study of 216 first responders that those who self-reported more than six potentially traumatic events (PTE's) during the routine course of their duties, had more severe post- traumatic stress symptoms (PTSS), not the disorder but symptoms, and those with fewer than four (PTE's) had fewer (PTSS). So, questions to consider are, 1) if a medic has multiple traumatic events in one week or several in one shift, could there be a cumulative effect from these potentially traumatic events? 2) does the emotional barrier that a provider wears in order to perform this work become more difficult to remove at the end of a shift when multiple traumatic events occur, creating a block in the ability to relax, communicate with others, and engage in family life? 3) What can behavioral health professionals offer to decrease these potential reactions?

There is growing recognition of the numbers of suicides among public safety providers in general. However, a 2015 survey of EMS providers asked if the provider had ever contemplated suicide, or if they had ever attempted suicide. Of the 4,022 participants, 37.09 percent stated that they had contemplated suicide and 6.6 percent had attempted suicide. This is overwhelming information compared to the Center for Disease Control (CDC) data from that same year with the national average being 3.7 percent for contemplation and 0.5 percent for attempts (Newland, C., Barber, E., Rose, M. and Young, A., 2015). The Firefighters Behavioral Health Alliance is a group that collects national data on firefighter and EMS deaths. In 2015, there were 131 suicides reported to their organization compared to 81 suicide deaths in 2012. Retired providers were included in this group; and this indicates that it would be wise for behavioral health clinicians to conduct suicide screenings on all active and retired public safety providers who seek help, as routine practice. As Erich noted, "Suicide numbers seem uncomfortably high and persistent, in a profession fond of boasting that no brother or sister gets left behind, we don't do a very good job of supporting our brethren in their times of emotional and psychological vulnerability" (2014). Interestingly, another layer to note is that many veterans transitioning from military life to civilian life find a good career fit with emergency service work. This may occur because a veteran had experience in the military as a medic. This information would likely be discovered in compiling a Psychosocial History and could serve as an indicator for considering a suicide assessment along with a level of stress assessment for such providers.

The common coping mechanism of avoidance supported by the cultural resistance for seeking support is revealing significant problems. A call for better coping mechanisms are becoming standard in the industry (Novara, Garro, & DiRienzo, 2015). Cognitive Emotion Regulation is a critical factor that needs to be evaluated further within the public safety

population as it ties closely with coping and healing. The question is how does each public safety person view his or her world prior to going into a critical incident or difficult call? What has he or she already experienced on calls in the past? What is happening at home? A recent study revealed that the DSM-5 cluster of negative changes in cognitions and mood was linked to increased negative cognitions about one's self, the world, and self-blame (Kaczurkin, Zang, Gay, Peterson, Yarvis, Borah, Dondanville, Hembree, Litz, Mintz, Young-McCaughn, Foa, and the Strong Star Consortium, 2017). What this means for public safety providers is that greater self-awareness and self-care is needed because they are continually thrust into critical incidents as a routine part of their jobs. How do we maintain self-efficacy? The Kaczurkin et al. study also revealed that negative alterations in cognitions and mood was linked with catastrophizing. Exaggerated negative beliefs such as, "no one can be trusted" are a type of all or none thinking or catastrophized thinking, that develops perhaps from preoccupation with intrusive memories or excessive negative interpretation (2017). The fact is that there are calls that public safety providers experience that are dangerous and do involve questions of trust and consideration of risk factors. Therefore, one can imagine the difficulty in finding a balance around worldview perspectives for these providers. However, if behavioral health professionals can assist EMS providers with increasing their own self-awareness and educate them about diverse self-care tools before, during, and following events, the public safety provider's ability to regulate emotions will increase and a shield of balanced self-protection will grow around him or her, in a healthy manner. This process would likely help with home life re-engagement at the end of shift, when family or non-work life becomes the focus versus staying in work mode.

What of the terms Secondary Traumatic Stress and Compassion Fatigue? The capacity for compassion and empathy seems to be at the core of one's ability to do the work and at the

core of one's ability to be wounded by this type of work (Figley, 2002). Basically, what Figley is describing is a characteristic (empathy) that people who enter the helping professions believe connect or attract them to the work. Many men and women who choose public safety careers do so for altruistic reasons. While empathy is core to the ability to do human service work, it can also be the demise of one's own well-being, if not given boundaries. Teater and Ludgate (2014) describe an erosion of our compassion, which causes a person to close off from others as a form of self-protection, in turn causing one to be increasingly vulnerable. This can come from overidentifying (over care) with patients or clients (i.e., remaining focused on the patient's trauma, developing unhealthy boundaries, losing one's self in work and neglecting home life and family relationships). This is related to risk factors for compassion fatigue which includes, over care, overwork, and over commitment, and a helper who can't process events and move forward because they continually take on new issues. These types of factors have the potential to backfire on providers because they diminish one's sense of control in a situation (i.e., the role of helper during a critical incident or difficult call) and in turn lower one's self-esteem or belief in efficacy. Dandeneau, Baldwin, Baccus, Sakellaropoulo, and Pruessner (2007) state that a less studied idea is the Early Stage Attentional Process. This idea relates that situations which produce a perception of threat, play an important role in one's stress response. Basically, in the EMS role, it would suggest that a provider could soon after a critical event, pay attention to the potentially threatening situation, focus on it, and process it, rather than ignore it or push it away. This ties to the benefit of early intervention and support programs for EMS providers. These types of supportive roles could be considered for trained peers for post event supportive listening, or Critical Incident Stress Defusing. This is not therapy, but it could be therapeutic, and

may open the provider to the option of a referral to an Employee Assistance Program or a therapist of choice.

The incidence of burnout is a related topic of concern for EMS providers. Burnout is higher in professionals with high caseloads, limited professional support, and challenging patients, among other factors. Those most committed to the job are the most vulnerable to burnout (Buler, Carello, and Maguin, 2017). So, could this type of work environment exist in EMS? Is there a perception by EMS Agencies, EMS culture, and EMS providers that overwork, and self-deprivation are the norm? Does EMS culture consider these perceptions to be harmful to the provider or are they looked upon as a badge of honor? Research has documented organizational factors that may contribute to the effects of public safety work. Providers who report feeling drained by their work or unappreciated, or even irritated by calls, could be at risk of compassion fatigue. There are scales available to assess such conditions such as *The Wellness Assessment Scale*, CTRI, Inc. There is a need for additional research on this topic. In the meantime, EMS Agency education on self-awareness and self-care of providers can begin to address these important issues.

Bringing the Work Home: Stressors on Family Life

The stress associated with EMS careers can impact the work-family relationship for public safety personnel. Some research has been conducted on how stressors associated with these types of jobs influence family life but more needs to be done. One study, interviewed thirteen spouses of EMS workers using a semi-structured qualitative interview guide that explored issues related to EMS work that could impact the quality of family life. Using a phenomenological approach, data were examined for themes that illuminated factors which

influence work-family fit. This study revealed that shift work impacts numerous aspects of family life including marital and parental roles, leisure and social opportunities, and home schedules and rhythms. Most family partners coped positively with challenges associated with the EMS work through negotiating role responsibilities, developing their own interests, giving their spouses “space,” and providing support by listening and helping their spouse process their reactions to difficult work. Many spouses reported concerns over their partner’s physical safety while on the job yet feel a sense of security within the family from having a trained health care professional available to deal with emergencies (Roth & Moore, 2009).

Family members will attest to knowing the start time of their loved one’s shift, but the end time is a guessing game (it really depends on how the shift goes) which requires great flexibility on the part of family members. For example, one spouse described a recent holiday when her children waited for hours to open their Christmas presents because their family tradition was to have the whole family together, and the children wanted their father to be there and he had to work over time. Another spouse talked about a difficult social life for the family because the provider was often working on weekends when activities like weddings and parties take place (Roth & Moore, 2009). Knowledge of the EMS provider’s work-family fit perspective is of great importance to behavioral health professionals, because sources of stress will often vary for providers versus families. There needs to be consideration of both perspectives in order to bridge a divide.

The roles that first responders play in the community are often possible because they are supported by their loved ones who live in a constant state of flux. Families are not usually recognized for doing their part, considering ongoing work/ life stressors, and necessary resources (friends, family, daycare, etc...) other than the provider to help them manage family life. Public

safety providers spend a great deal of time at work and depending on what is occurring at home (a sick child or a family event) can experience stress and guilt. Family time together may look different from a 9-5 family; for example, a family meal may happen, but the provider sharing that meal may depend upon when the last call of the day is finished. EMS families are challenged to be more creative in finding shared times. It helps these families to shift their perspectives from individual thinking (i.e., I need this) to family systems thinking (i.e., what we need to accomplish to meet our family goal).

Systems thinking, is a concept that Murray Bowen, M.D. developed, wrote, and taught extensively about until his death in 1990. Bowen (1988) stated that systems thinking focuses on what happened, and on how and when and where an “event” happened, rather than on why it happened. As his research continued in this area, Bowen used the term systems to refer to the interaction and behaviors between family members. Emotional reactivity is a part of a System’s process and can be seen in families of first responders as well as in the “work family”, as it is often referred to.

Emotional reactivity in a family, or group that lives or works together, goes from one family member to another in a chain reaction pattern. The total pattern is similar to electric circuits in which each person is “wired” or connected by radio to all the other people whom he has relationships. Each person then becomes a nodal point...through which impulses pass... each person having varying styles for handling impulses...wired with two-way circuitry (Bowen, 1988, p.420-421).

Therefore, the function of a provider’s family system can influence the provider’s work system or visa-versa. Some literature supports a “spill-over effect while other literature demonstrates that personal coping resources may mediate the impact of stress on the whole family system. For example, Sweeton (2017) speaks to the importance of focused self-regulation which is needed for ongoing attention and awareness. This could be a strategy used by the provider for individual wellness. She indicates that nonjudgment is often required for connection to and acceptance of

others, and one cannot manage attachment to others if qualities such as awareness, and self-regulation are not present. Some strategies that providers can actively participate in within their systems include, pre-planning and enhancing flexibility, negotiating roles and responsibilities, family members developing individual interests, and having back up plans in place (Roth, S. & Moore, C. 2009; Story, L. Repetti, R. 2006; Shakespeare-Finch, J., Smith, S. & Obst, P. 2002). Examples of the need for pre-planning and flexibility include the impact on family or others when they are required to re-arrange or cancel plans on short notice, to include missed family events. Some family members may grow to resent the job or even the provider because of these issues. How might one intervene as a behavioral health professional to provide support and intervention within an environment that is unpredictable? A few helpful approaches are: 1) Check in with the family system to help the members identify what is either working or not working for them. Sometimes, what behavioral health professionals think of as stressors in a family, may simply be a part of the routine for these families. 2) Remember that EMS families are the experts on their lives. We need to ask them to describe the stressors in their lives as they define them, and examine how a stressor impacts their daily life? 3) What can the individual do to reframe his or her perspective on a situation? For example, is a family member of the EMS provider sitting alone and feeling resentful while the EMS provider is working on a Saturday afternoon? or Is it possible that a person could engage in a hobby or reach out to his or her support system to enhance their own well-being during that alone time?

Social workers at their very core are professionals who have been educated to think “systems” when working with individuals, families, groups, or communities. The social work profession is rooted in the promotion of social change, problem solving in human relationships and the empowerment of people to enhance their well-being. Key theories such as human

behavior and social systems enables social workers to intervene at critical points where people interact with their environments and issues arise (Danis & Kirbac, 2013). How can we use our knowledge of systems to enhance the flow of life in EMS families? Consider the following case study.

Case Study One

Mark is a 25-year-old paramedic in a mid-size urban town. The call volume of his EMS service is steady and challenging, he enjoys being able to intervene in complex cases. He has worked as a paramedic since age 20 and feels like he finally made it to where he wants to be in his career, he loves his job! One year ago, Mark met Emily, they fell in love and have been married for three months. Emily is an elementary school teacher and she also enjoys her work; she is home by four o'clock each day and has every weekend off. However, the issue for Emily is that she envisioned her first months of marriage to be filled with settling into a life with her new husband (evenings by the fire, dinner out on Friday nights, and attending various social events together). After all, that is how things were done in her family of origin. Emily is growing frustrated by Mark's schedule, his lack of interest in going out after work, and the undependable nature of his job. Emily's mother suggested that she see a therapist because Emily is wondering if she and Mark rushed into marriage, or if they are right for each other at all? She states that Mark is late for dinner most nights, or if he works an afternoon shift, Emily eats alone. She states that Mark seems to relate better to his work friends than to her, and when they do go to family or social events Mark usually meets her there because he is either going to work or coming late from work to the event. Her friends joke that Mark is a "fictitious" character and that she is not really married.

How would a social worker engage with this couple using a systems approach?

- A) Meet with Emily alone.
- B) Invite both Emily and Mark to a meeting to discuss the problem.
- C) Have both Emily and Mark Present for a discussion using a family systems approach to explore expectations based on family of origin roles, rules and rituals.

While one could argue for each possible choice, using a family systems approach will help this couple to identify their thoughts and ideas about marriage as related to expectations based on a family of origin reality instead of the reality of their own life together. The therapeutic process could help them to foster a reality that they can build using protective factors and support systems. Developing a work-family life balance will help this couple to create their new reality and will be helpful as their relationship changes and grows.

Consider what the impact of this lifestyle as families expand. Somech and Drach-Zahavy (2007) found that handling two major competing domains of life simultaneously (i.e., a sick child and a parent trying to decide to call off- of work versus finding adequate care for their sick child) can be some of the most stressful life experiences; Both alternatives create stress, guilt, and most likely lack of concentration and focus. Could this experience be cumulative in nature if a provider has a chronically ill child? What does this type of cumulative experience do to the provider on a bio-psycho-social level both at work and at home?

One strategy that some public safety providers employ to deal with chronic stressors (without being cognitively aware of doing it) is emotional numbing. Regehr (2005) studied this concept as it pertains to first responder family life and found that this is one way that providers cope with stress. Characteristics such as detachment and emotional unavailability, and irritability lessen a person's interaction with partners, children, and extended family. This places the entire family at risk for fractured relationships due to poor communication and misunderstandings

within the family. In addition, characteristics such as overprotection are common with EMS parents (i.e., “no you can’t ride your bike to the park alone” or “you cannot play at the lake unless we are with you”) and desensitization to issues may cause arguments within the home. On a positive note, in Regehr (2005) states that the work of first responders serves as a reminder to them of the fragility of life, and it creates a greater appreciation of loved ones.

Stress and danger, as has been discussed, is a part of working in this field. How that stress transmits to the family is multifaceted. One way is related to the types of calls and the impact that they have on the EMS providers, such as the death of a child or a motor vehicle collision involving many victims, a fatal fire, or a violent crime. Another is the work environment, whether it be the morale of co-workers or the actual physical environment (weather extremes, dangerous structures, large groups of people) of the call. In addition, what is the EMS base or station like? Some public safety stations are state of the art with new kitchens and gyms on site. Others are not so fortunate; the work space is an old, drafty building that is in dire need of a paint job or major repair or lacks basic creature comforts. How does it feel to come from a fatal accident call to the station? Can an EMS provider sit down in a clean kitchen and eat a quick meal or are they sitting in an old recliner with concrete flooring, snacking from a vending machine? These environmental factors can play a role in call or incident recovery and self-efficacy. The environment could produce self-talk of either, “it’s good to be here”, or “no one cares about us, we get crap on calls and come back to crap in the station”.

As discussed earlier, shift work can be another stressor requiring great flexibility of the provider and of family as most requirements of “normal” daily life operate on a daylight schedule (family and school activities, social events, etc...). It may become difficult to maintain connections outside of EMS co-workers.

One study looked at the concerns of family members and EMS providers in relation to the job. It was revealed that 59.2 percent of providers (N=75) reported that they worry about contracting an infectious disease from patients and an even larger percentage of family members 79.3 percent worry about these health risks. In addition, physical safety on the job was a concern for both providers and families with 55.3 percent of providers and 79.3 percent of spouses reporting concern. Of interest was that a little over half of the providers in the study 50.6 percent admitted to having been injured on a call because of a patient's aggressiveness, and only 34.4 percent of spouses stated that an aggressive patient injured their spouse. This suggests that providers are not telling their spouses of the nature or the cause of an injury because they do not want them to worry. This study also revealed that providers cope largely by using humor with 85.5 percent of participants and 93.1 percent of spouses (N = 75) compared to 40.8 percent of providers using spirituality. Roughly seventy-two percent of providers said that they don't sleep well due to shift work and over half of their spouse's 55 percent reported not sleeping well when the provider was working the overnight shift (Roth, Reed, and Zurbuch, 2008).

Coping styles and techniques vary by individual and can be negative and/or positive in nature. As noted earlier, much of the literature describes skills of self-protection such as (desensitization, suppression of emotion, dark humor, controlling behaviors). These types of self-protective behaviors are useful to function on the job but can become problematic when providers can't de-escalate after the shift and said behaviors merge into family life. In one study, providers and families relayed that communication issues were different, especially early in the provider's career. However, if families can find a way to build resilience and a rhythm for this lifestyle it can work. Many of the EMS couples interviewed demonstrated an ability to balance housework and child care needs. Some even reported that shiftwork made it possible for at least

one parent to always attend school functions or other appointments with their children. Families who thrive are those that can be flexible and find ways to enjoy time together, focusing on the things they can control like planned vacations, time at home before or after shift, and their own unique family rituals. In addition, accepting that there are things that they cannot control such as forced overtime, missed holiday meals, changing schedules (Roth et al, 2009). Another essential point for EMS providers and their families is to develop an awareness of their own levels of stress and risk for cumulative stress. Consider what protective factors the family system has in place to counterbalance stressors and risk factors.

Case Study Two

Joe is a 31-year-old male who has been working in EMS for eight months. Prior to working in this role, Joe had been in the U.S. Army for 12 years and worked as medic, doing two tours of duty, over the past four years of his career. Prior to returning home, Joe stated on several occasions to his wife (Jennifer) that he was struggling with the idea of leaving the military and returning home to civilian life. He suggested that while he was excited to return home, he worried that it might be a challenge for him. He was concerned about finding a job and fitting back in to the life that he had left behind. Once home, Joe seemed tense and anxious, however, he was relieved to find a job as a paramedic right away. He accepted the position with the goal of going back to school after a year or two. After some adjustment to his new job and being home again with Jennifer life began to feel more comfortable. However, after several months on the job, Joe and his crew were called to a house explosion. Upon arrival at the scene Joe noted two bodies lying in the front yard of the home. He performed triage on the victims and determined that one was a female who was deceased, and the other was a young man in his 20's who was

critically injured. Joe began treatment on the young man on scene and in transport to the hospital. Despite Joe's efforts, the young man died. That evening and for the next several weeks Joe kept thinking about the call, and then his memories of similar scenes from Afghanistan began to surface. The smell of the scene and the sight of a burned body was pervasive. He kept this to himself because he worried that if he shared how he was feeling, others would think that he was "crazy" or "weak". Over the next month, Joe began complaining of stomach aches and breaking out into a sweat when a call came into the station. He started taking long smoke breaks (outside) while on duty and within in a short time increased the frequency of calling in sick to stay home from work. At home there were changes too, Joe was only sleeping for two – three hours at a time and began to withdraw from those close to him. In addition to those changes, Jennifer was a college student prior to Joe joining the army and during their time apart she had completed her degree in business administration. She currently worked full time at a local bank and was very independent. Joe began to suspect that she did not need him like she once did. She had developed a routine of caring for the house, paying the bills, and things were organized to suit her life, not his. She had developed friendships and support systems with people he didn't even know. As a couple, they were growing less intimate and Jennifer noticed that Joe was socially withdrawn, quick tempered, and exhausted most of the time. Jennifer asked Joe to seek help, but he refused. On a Friday evening, two months after Joe responded to the explosion call, Jennifer came home from work to find Joe sitting in the den, in the dark, still wearing his work clothes from the day prior; he appeared to be motionless. She feared the worst but noticed that as she moved toward him that he was alive, he had tears in his eyes and would not respond to her questions. Joe looked despondent, staring into space, he had an empty pill bottle next to him and he smelled of alcohol. Frantic, Jennifer called 911 and an ambulance was sent to the house.

Jennifer accompanied Joe to the local emergency department for evaluation. Joe was admitted to the hospital.

If you were consulted on this case as a hospital social worker, how would you proceed?

- A) Since this was not a medical trauma I would leave my card in case the family wanted to contact me.
- B) I would introduce myself to Joe and Jennifer and discuss what lead to them coming to the ER, consult with medical staff, and make plans for further assessment and intervention prior to Joe leaving the facility.
- C) I would tell Jennifer that she needs to consider marriage counseling as soon as possible.

While Joe will benefit from a psychiatric consult and evaluation, it will be helpful for the social worker to discuss the situation with Joe and Jennifer to inform them of the types of assistance available to Joe both at the hospital and outside of the hospital. In talking with Joe at some point during his stay, it will be important for the social worker to validate that it is common for similar past critical incidents to wire together in the brain based on Hebb's Rule and the interpretation of "Neurons that wire together, fire together" (Hebb, 1949). This is part of the reason that the most recent call (the explosion) brought back memories of similar situations while he was a medic in the military. This is an important aspect of trauma for social workers to be aware of, especially since public safety jobs like EMS, are attractive to individuals with military experience.

One reference that could be useful to these types of situations is The United States Air Force Guide for Managing Suicidal Behaviors: Strategies, Resources, and Tools (U.S. Airforce, 2004). EMS and behavioral health providers who work with first responders can benefit from reviewing this model and adapting it for civilians in the public safety sector as it covers key areas from decision making frameworks through ensuring continuity of care. The Air Force Guide recommends that suicide assessment be done upon every initial evaluation and this would also be

an appropriate consideration for behavioral health professionals to use with EMS providers experiencing job or home life difficulty. An important aspect to consider is that periods of transition are often a time of high risk and discharge plans or treatment plans should take this into consideration.

It is important that plans for working with EMS populations be in place long before they are needed, and these should include the practice of planning with EMS leaders, supervisors, safety officers, or peer teams as a means of community support. Consider the case below as you think about pre-incident education and planning.

Case Study Three

Mary is a 25-year-old paramedic. She has worked as a medic for five years and loves her job. Mary is married to Bill and they have two children (Kyle age 3 and Gina age 1). Bill also works in public safety as a police officer. The couple share household and child care duties and because they work opposite shifts it works well. Yesterday, Mary was dispatched to a call for a drowning at a local swimming pool. When she arrived, a frantic mother grabbed her and shouted, “please don’t let my baby die.” On the ground was a 3-year-old boy with a 16-year-old life guard performing CPR. The child had apparently slipped from his mother’s view while she was attending to her other children and had wandered into the adult pool and drowned. The child was wearing Spiderman swim trunks, the exact ones that Mary’s son Kyle owns. Mary tried aggressively to work on the child and despite her efforts the child had died. On scene, Mary was professional, compassionate, and appropriate. She actually went on two more calls before her shift ended and looked forward to going home to be with her family. That evening, Mary went home to find her children swimming in the neighbor’s pool. Their laughter and loud splashing

could be heard over the fence as they played with their father and the neighbor's children. Immediately overcome with rage, Mary stormed into the neighbor's yard and screamed at her husband, "how dare you bring the kids swimming without me", grabbed Kyle, who was wearing his Spiderman swim trunks and wept. Everyone was shocked by Mary's behavior and looked at her in amazement. They did not understand. Some were asking, "What's wrong with her?" Her husband, angry and embarrassed, carried Gina across the yard and went inside of the house. Mary followed carrying Kyle who was also crying because he wanted to swim and now believed that he had done something wrong. Mary put the children into dry clothes, ordered pizza for their dinner and while the family ate, Mary went upstairs to her bedroom feeling nauseated and began to cry. Every time she closed her eyes, Mary saw the child who had drowned lying on the pavement in his swim trunks and hearing the mother of that child screaming and crying. Mary felt hopeless, thoughts of never going back to work raced through her head, in addition to thoughts of her husband wanting to divorce her after her outburst. She was filled with rage and shame at the same time.

How could this situation be addressed?

- A.) Suggest family therapy immediately for this family.
- B.) Offer Mary a quick intervention to help her to process the call and relate that this is one step in beginning to address the cumulative stress that she has experienced.
- C.) Help Mary to ventilate and process the call and validate that her job carries multiple risks for cumulative stress. Offer her an opportunity to connect with you or an appropriate behavioral health provider for a few sessions to integrate self-awareness and self-care into her life. In addition, offer to work with Mary and her husband in a psychoeducational session about first responder stress and family life.

A good place to begin with "helping the helpers" is to engage with them in a process of discovery. Very often, a pre-incident, psychoeducational session for EMS providers (where continuing education credits are offered to increase interest) can be a non-threatening way to

provide insight and information about the bio-psycho-social-spiritual impact of working with vulnerable populations. Mary may already be aware that her behavior was extreme but the trauma reactions and ability to regulate emotions have preceded Mary's ability to process what has happened. As a result, Mary may now struggle with guilt and shame which could compound her behavior and interactions within her family and with her neighbors.

Frequently, public safety providers don't realize that things like increased stress reactions, social withdrawal, or communication issues within family life are exacerbated due to cumulative exposure to vulnerability or trauma, or perhaps compassion fatigue and vicarious trauma. It is important to educate providers about these reactions and their relatability to a bio-psych-social process. A few steps to prepare for this would be to educate oneself as a behavioral health provider in the specialized area of critical incident stress. There are many places where one can gain this knowledge such as the International Critical Incident Stress Foundation or the International Society for Traumatic Stress Studies. The next step would be to know your community. Are there organizations with your community that already work with these specialized populations, such as, a Critical Incident Stress Management Team or a therapist or an EAP group who works with this population? If so, talk with their leadership about their team's work and investigate what they offer and how you can work together. Another step would be to network with first responder peer teams in your community to offer a free educational session at one of their meetings. There are also EMS conferences where sessions on self-care are becoming more accepted by this population. The key is not to go into a meeting or a conference as a social worker that is there to "fix things". One approach is to acknowledge that we are included in a group of professions that face many of the same emotional risks as EMS providers, we have a lot to share about coping and resilience.

Road to Recovery

Flannery and Everly (2000) stated that several factors are considered as agents of change in the road to recovery. One is the ability to share or ventilate about the traumatic event, another is social support networks and the third is adaptive coping which includes information gathering and cognitive appraisal and skill acquisition.

As mentioned, Critical Incident Stress Management (CISM) is one way that providers can ventilate to other providers, trained in crisis management, who have lived the stressors of the job. CISM incorporates teams of behavioral health and public safety peers who receive special training on critical incident stress and crisis intervention concepts. These individuals are trained to listen to providers following difficult calls and to provide psychoeducation, support, ventilation, and validation and referral to community and agency behavioral health resources. CISM teams often provide pre-incident education as a part of their services and public safety and prehospital provider presentations. Referral options for behavioral health care are often provided to the public safety group receiving an intervention such as (community mental health agencies), or for their place of employment (such as an Employee Assistance Program). CISM is not therapy but it can be therapeutic to those who work in EMS and other areas of public safety.

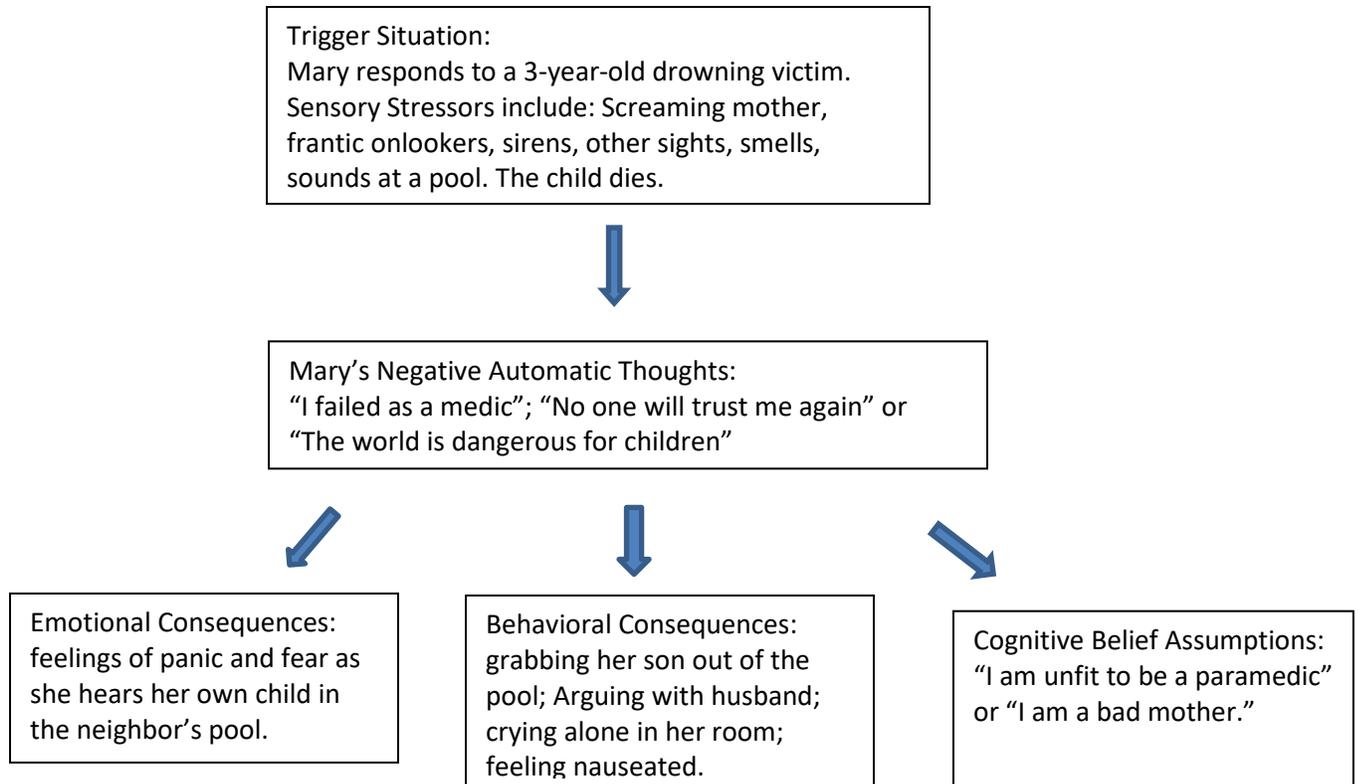
Posttraumatic stress disorder(PTSD) is a diagnosis that many public safety providers talk about and have very real concerns about when the events of a call go home with them and linger. Psychoeducation with this population has a deep impact when the option for pre-incident education provides other terms such as acute stress reaction and vicarious trauma. Many providers do not readily acknowledge that they are still processing an event several weeks following a call for fear that they will be labeled with PTSD. Describing the requirements for a diagnosis of PTSD can be a helpful opportunity for providers to understand that many factors are

involved in this diagnosis such as length of time for symptoms, neurocognitive impairment, and behavioral reactions to name a few. Clinicians and some researchers have noted that it is common for patients with PTSD to complain of memory and attention problems to a degree that may not represent the patient's objective neurocognitive performance... In fact, some studies have indicated that many individuals with PTSD believe they possess memory, attention, and thinking problems when objectively they do not show impairment (Samuelson, Bartel, and Valadez, and Jordan, 2017). The role of cognitions in the development of PTSD was studied by Foa and Rothbaum in 1998, which suggested that *emotional processing theory* includes two categories of negative thoughts in people with PTSD. The first, a belief that the world is a dangerous place, and the second, that one is incompetent or helpless in the face of trauma, and the symptoms that follow. These negative thoughts then produce inadequate or harmful coping styles, which essentially may make PTSD symptoms worse (Samuelson, Bartel, and Valadez, and Jordan, 2017). In addition, an important message for health care and behavioral health providers is that self-reporting of symptoms by patients is important and should be listened for. However, be aware that self-report is also subject to bias and inconsistencies. Findings of a recent Samuelson et.al study suggested that the perception of cognitive problems by the patient, even in the absence of neurocognitive impairment, influences psychosocial outcomes for that person and lower functionality in life (Samuelson, Bartel, and Valadez, and Jordan, 2017).

Research on coping has looked at processing stressors or adversity in behavioral, cognitive, and emotional domains. One model that could shape appraisal and coping behaviors, according to Grych, Hamby, and Banyard (2015) was developed by Lazarus and Folkman in 1984. This model proposes that one's behavioral responses to stressors are tied to the individual's appraisal of the event (i.e., how threatening is this event to me or others, and can I

cope with it). This model, per Grych et al... allows for the use of protective factors and strengths in the process of appraisal. Behavioral Health clinicians can foster post-traumatic growth by increasing client's abilities to utilize protective factors.

One example of a treatment model that describes the distress that Mary has experienced is the Cognitive Behavioral Model developed by Aaron T. Beck. This type of model begins with a situation and goes through emotional and behavioral consequences that follow. A cognitive model describes how an individual's self-talk, thoughts and perceptions can hold great influence over their life. Distressful events can distort people's perceptions of events, and in turn, can lead that individual to experience and express unhealthy emotions and behaviors (<https://beckinstitute.org/get-informed/what-is-cognitive-therapy>). The cognitive approach is useful because it allows the client to understand the connection between thoughts, feelings, and behaviors and to visualize how the situation has affected them. Below is an example of how such a model could be used for an EMS client. Using the case of Mary (case example #3) allows one to consider these concepts. Mary a 25-year-old paramedic who responded to a child drowning at the local pool, one can follow the incident and observe the cognitive and emotional pathway that Mary took which contributed to her reactions following the call. As you review the case again, and review the pathway of Mary's reactions, consider at which points intervention could have offered early on. Consider how you might use a visual to assist Mary with understanding her reactions to the event.



Obviously, pre-incident psychoeducation would have helped Mary to be aware of potential reactions and the bio-psycho-social connections to the event. However, consider how a cognitive approach would help both the social worker and Mary to follow her reactivity on paper. Cognitive reframing could be used to assist Mary in adjusting her automatic thoughts, thus the emotional and behavioral consequences, and this would challenge Mary's distorted thinking. Treatment planning could include self-regulation processes and discussion for future events and reactions given the nature of Mary's work. Considering the issue of loss as a part of patient care should be included in discussion with Mary. To validate grieving the loss of a patient is common and helpful to providers. Seah and Wilson, (2011) see validation of loss as helpful and tied to the search for resiliency and growth. Used in counseling practice, it can empower the individual to shift from a victim state to a survival state, and eventually assist the individual responder in making meaning of the loss.

Making meaning of a patient's death does not indicate making sense of the incident or the death of the patient. It refers to the ability to make meaning of their role as a patient care provider and a first responder. EMS providers respond to critical incidents and to people in crisis as a part of their expertise, they have no role in the cause of the incident, however, they are responding to and bringing with them the tools and skills to potentially help and provide hope in the situation. Their felt loss is a natural part of the process of healing.

Bolstering protective factors is also a part of the coping toolkit. Helping providers to identify risk factors on the job and in their personal life, and to pre-build protective factors in, to alleviate future stressors. As discussed in a previous section of this course, times of transition can be challenging, and protective factors can buffer the transition. Protective factors can be coping strategies and supportive people. Working with providers to develop a plan will give them some control and increase self-preservation. Joining with others and hearing observations by friends, co-workers, and family members can be a gauge for the individual to measure stress reactions in life as well as the need for additional supports.

Mindfulness practices are another type of skill set that EMS providers can acquire to encourage positive coping. One of the most powerful things that social workers can do is to teach people that to react to abnormal events is to be human. It's not possible to do this work and come away without some impact. Mindfulness gives our brains a chance to rest and recover. Mindfulness is basically paying attention to something, in a focused way, on purpose, in the present moment, non-judgmentally (Kabat-Zinn, 2003). It requires the person to focus on an object or a thought or a vision instead of the actual stressor. EMS providers may say that they don't want to try a mindfulness exercises because it seems awkward or uncomfortable; however, if they can be exposed to mindfulness through peers or in participation with peers, most will try

it. Providing an object (such as a marble) to be used for focus is one way to start. It's a small object that can be kept in one's pocket and used when time permits. The person could then focus on the object from a sensory perspective. For example, a paramedic once shared during a mindfulness training session that he uses a tube of lip balm as his focus object. He stated that short periods of focused attention takes his mind off of bad calls. It may be an item that the person carries anyway, and it does not appear unusual to have it on your person, therefore, no need to explain it to anyone. He described holding the tube of lip balm in his hands, he would examine the colors, the words written on it, and the texture of the container. This focus allowed his mind to rest from thinking about the critical event for a few minutes, to find a neutral place to rest. Other exercises of focus could include a calm place visualization or muscle relation exercises. Sweeton states that using mindfulness techniques fosters neuroplasticity and allows for creating new positive pathways within the brain. Neuroplasticity follows Hebb's Rule of: neurons that fire together, wire together. Repeated experience can strengthen or weaken neuronal bonds (2017).

How do public safety providers keep going to work and responding to difficult calls? Resiliency is often defined as the ability to bounce back from adverse experiences. It is often considered that resiliency is a predictor of post-traumatic growth. Post-traumatic growth, according to Grych, Hamby, and Banyard, (2015), focuses on the concept that the process of coping with adversity and trauma can have positive benefits on health, if the trauma was processed, or meaning has been made of it. The term resilience has also been used to define healthy functioning following exposure to adversity, and on the other side of the coin, as that which is needed to adapt to adversity (Grych, Hamby, and Banyard, 2015).

Adversity occurs throughout one's life and most of us know someone who struggles with illness (mental or physical), substance abuse, relationship issues. Each stage of life is influenced by experiences that precede it. One example of this is the Adverse Childhood Experience Study (ACE's). In 1998, the Center for Disease Control and Kaiser Permanente did a study of 17,000 middle-class Americans. They documented that adverse childhood experiences (ACEs) can contribute to negative adult physical and mental health outcomes. It was also discovered that these types of experiences impacted more than 60percent of adults who participated in the study. The goal was to see if these adverse life experiences related to chronic health conditions later in life. The researchers found that obesity, heart disease, and addictions are directly related to childhood adversity (American Academy Pediatrics, 2014). It is recognized that stress is a part of life and stress from ACEs may become toxic when there is prolonged activation of the body's stress response system, in the absence of the buffering protection of a supportive, adult relationship (American Academy Pediatrics, p.2, 2014). A protective factor of one other supportive person has the power to change a person's life. The odds that public safety providers have been children in adversity are as high as any other person. The interesting choice of these professions is that these men and women are choosing to enter the lives of people when adversity strikes. Therefore, they could be a protective factor in someone's life. This in turn could enhance the provider's own compassion satisfaction. Does the EMS provider love what he or she does? This is a key to guiding them towards resilience and recovery. Reframing what their role is in these critical events can give focus to what they offer to patients and families in their time of need. At the very least, they came when others did not know how to help.

Summary

Stress and reactions to stressful events is a part of the job for EMS personnel. Family members and others close to providers are often impacted by the stress of the profession. Job satisfaction is an important part of this equation and things like critical incidents, calls that hold familiarity of circumstance to the providers life, quick turnaround times between incidents, public reaction to events, and to providers all play a role.

Leadership in EMS organizations can play a role in promoting work- family -fit. In some areas of the country organizations have begun to address families as a part of the equation. Education for families about personal well-being, stress reduction, empathic communication, and transition to home from work can all help to make the home environment better for EMS families. Compensation for EMS providers is another area that impacts family life. In some areas where the pay is low, providers work two or three jobs just to make enough money to support their families. The overtime may help financially but in turn the provider loses time for positive engagement with their loved ones.

EMS culture is unique and there are people with unique life perspectives who work in these jobs. As the saying goes, they run toward danger when everyone else is running away. How can we best help these providers to stay healthy and on the job? This is a question that we need to ask them when given an opportunity; and choose strategies that will work with their lifestyles, schedules, and desires. Together we can create a culture of caring.

References

- American Academy of Pediatrics (2014). Adverse Childhood Experiences and the Lifelong Consequences of Trauma. [ttb_aces_consequences.pdf](#).
- Beck Institute. (2017). What is Cognitive Therapy. <http://beckinstitute.org/get-informed/what-is-cognitive-therapy>.
- Bowen, M. (1988). Family Therapy. Northvale, NJ: Jason Aronson, Inc.
- Butler, L. Carello, and Maguin (2017) "Trauma, stress, and self-care in clinical training: Predictors of burnout, decline in health status, secondary traumatic stress symptoms, and compassion satisfaction". *Psychological Trauma: Theory, Research, Practice, and Policy*, 9(4), 406.
- Dandeneau, S. D., Baldwin, M. W., Baccus, J. R., Sakellaropoulo, M., & Pruessner, J. C. (2007). Cutting stress off at the pass: Reducing vigilance and responsiveness to social threat by manipulating attention. *Journal of Personality and Social Psychology*, 93(4), 651-666.
- Danis, M.Z. & Kirbac, A. (2013). The Historical Development of Social Work Practice with individuals. *Middle-East Journal of Scientific Research*, 703-711.
- Dean, P. G. & Shakespeare-Finch, J. (2003). Counting the Cost: Psychological Distress in Career and Auxiliary firefighters. *The Australian Journal of Disaster*, 1174 - 4707.
- Erich, J. (2014). Earlier Than Too Late: Stopping Stress and Suicide Among Emergency Personnel. *EMS World*. Vol. 38(47).
- Figley, C. R. (1995). (Ed.). *Compassion fatigue: coping with secondary traumatic stress disorder in those who treat the traumatized*. New York: Brunner/Mazel.
- Figley, R. & Everly, G. (2002). *Compassion Fatigue: Psychotherapists' chronic lack of self care*. *Journal of Clinical Psychology*, 1433-1441.
- Firefighter Behavioral Health Alliance; <http://www.ffbha.org/>
- Flannery, R B. and Everly, GS (2000). Crisis Intervention: A Review. *International Journal of Emergency Mental Health*, 2 (2) 119-125.
- Grange, J. & Corbett, S. (2002). Violence Against Emergency Medical Services Personnel. *Prehospital Emergency Care*, 186-198.
- Grych, J. Hamby, S. & Banyard, V. (2015). The Resilience Portfolio Model: Understanding Healthy Adaptation in Victims of Violence. *Psychology of Violence*, Vol 5 (4), 343-354.
- Hebb, D (1949) *The Organization of Behavior. A Neuropsychological Theory*. Wiley, New York, NY.
- Kabat-Zinn, J. "Mindfulness- Based Interventions in Context: Past, Present, and Future. *Clinical Psychology: Science and Practice*. 2003; 10:144-156.
- Kaczurkin, A.; Zang, Y.; Gay, N.; Peterson, A.; Yarvis, J.; Borah, E.; Dondanville, K.; Hembree, E.; Litz, B.; Mintz, J.; Young-McCaughan, S.; Foa, E.; & The Strong Star Consortium. (2017). Cognitive Emotion Regulation Strategies Associated with the DSM-5 Posttraumatic Stress Disorder Criteria. *Journal of Traumatic Stress*, 343-350.
- Kiviaki, M., Kuism, P., Virtanen, M. & Elovainio, M. (2001). Does Shift Work Lead to Poorer Health Habits? A Comparison between Women Who Had Always Done Shift Work with Those who Had Never Done Shift Work. *Work and Stress*, 3-13.
- Kudielka, B., Von Kanel, R., Gander, M. & Fischer, J. (2004). Effort Re-ward Imbalance, Over Commitment and Sleep in a Working Population. *Work and Stress*, 167-178.
- Lac, G. and Chamoux, A. (2004). Biological and Psychological Responses to Two Rapid Shift Work Schedules. *Ergonomics*, 1339-1349.

- Lee, J.; Lee, D.; Kim, J.; Jeon, K.; and Sim, M. (2017). Duty-Related Trauma Exposure and Posttraumatic Stress Symptoms in Professional Firefighters. *Journal of Traumatic Stress*. DOI:10.1002/jts.22180.
- Mechem, C., Dickinson, E., Shofer, F., & Jaslow, D. (2002). Injuries from Assaults on Paramedics and Firefighters in an Urban Emergency Medical System. *Prehospital Emergency Care*, 396-401.
- Milligan-Saville, J., Paterson, H., Harkness, E., Marsh, A., Dobson, M., Kemp, R., Bryant, R., and Harvey, S. (2017). The Amplification of Common Somatic symptoms by Posttraumatic Stress Disorder in Firefighters. *Journal of Traumatic Stress*. DOI:10.1002/jts.22166.
- Newland, C., Barber, E., Rose, M., and Young, A. (2015). Survey Reveals Alarming Rates of EMS Provider Stress and Thoughts of Suicide. *JEMS*.40(10):30-4.
- Novara, C., Garro, M., and DiRienzo, G. (2015). Coping Styles and Social Support in Emergency Workers: Family as a Resource. *Revista Romaneasca pentru Educatie Multidimensionala*. Vol. 7(1).
- Patterson, PD., Buysse, DJ, Weaver, MD, Suffoletto, BP, McManigle, KL, Callaway, CW, Yealy, DM. (2014) Emergency healthcare worker sleep, fatigue, and alertness behavior survey (SFAB): development and content validation of a survey tool. *Dec*; 73:399-411. doi:0.1016/j.aap.2014.09.028.
- Regehr, C. (2005). Bringing the Trauma Home: Spouses of Paramedics. *Journal of Loss and Trauma*, 97-114.
- Roth, S. G. & Moore, C. (2009). Work-Family Fit: The Impact of Emergency Medical Services Work on the Family System. *Prehospital Emergency Care*, 462-468.
- Roth, S., Reed, R., & Zurbuch, H. (2008). The Effects of Working in Emergency Medical Services on Family Life. In M. a. Blakely, *Life Style and Health Research* (pp. 157-182). New York, NY: Nova Science Publishers, Inc.
- Seah, C. H., Wilson, A. (2011). A Phenomenological Study of University Students' Grieving Experiences. *Illness, Crisis & Loss*, 3 - 25.
- Shakespeare-Finch, Smith, J. & Obst, P. (2002). Trauma, Coping Resources, and Family Functioning in Emergency Service Personnel: A Comparative Study. *Work and Stress*, 275-282.
- Somech, A., & Drach-Zahavy, A. (2007). Strategies for coping with work-family conflict: The distinctive relationships of gender-role ideology. *Journal of Occupational Health Psychology*, 12: 1-19.
- Story, L. & Repetti, R. (2006). Daily Occupational Stressors and Marital Behavior. *Journal of Family Psychology*, 690-700.
- Sweeton, J. (2017). Mind Skills Training Intervention for Anxiety Management. (Workings of Well-Being, Inc.). Oklahoma City, OK.
- U.S. Airforce Guide for Managing Suicidal Behaviors: Strategies, Resources, and Tools (2004). <https://www.usuhs.edu/sites/default/files/media/mps/pdf/mholloway-afguidesuiciderisk.pdf>
- Vettor, S. & Kosinski, F. (2000). Work-Stress burnout in emergency medical technicians and the use of early recollections. *Journal of Employment Counseling*, 1-11.
- Webb, N., (Ed.) (2004). *Mass Trauma and Violence: Helping Families and Children Cope*. The Guilford Press, New York.
- What is Cognitive Behavioral Therapy. <https://beckinstitute.org/get-informed/what-is-cognitive-therapy>

