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Critical Incident Stress Management: Perspectives on its History, Frequency of Use, Efficacy, and Success

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Abstract; *The process of Critical Incident Stress Management (CISM) was examined by surveying 153 respondents in Western Pennsylvania. At the writing of this article, CISM had been in existence for nearly five decades and has evolved through criticisms and successes. This research sought to identify current perspectives on CISM of Emergency Medical Services personnel in consideration of its foundations and evolution through these successes. Results indicated that CISM was helpful in a large number of participants.*

Keywords: *CISM, first responder, EMS, stress management*

Background

As CISM was being developed, its founders, Dr. Jeffrey Mitchell and Dr. George Everly, recognized the unique stress characteristics that first responders experienced as a result of their public safety duties. In its initial stages, CISM was sometimes referred to as Critical Incident Stress Debriefing (CISD), though the word "debriefing" was defined as just one component in the entire CISM management model and eventually the acronym CISM was accepted globally. Mitchell and Visnovske (2017) outline that Dr. Mitchell's public safety experience as a firefighter/paramedic led to the development of CISM. As CISM was placed into practice, it was studied for its efficacy. VanEmmerik et al., (2002) supported the fundamental process of CISM, while other research did not. Despite its intuitive appeal, some research indicated that CISM had no value in reducing symptoms of trauma-related incidents, and in fact suggested that it had a detrimental effect.

Objective

This current research attempted to define a timeline of CISM and examine its efficacy in one geographical area.

Methods

Through the use of survey research, data on CISM was collected and analyzed. Multiple variant characteristics of the participants (n=153) assisted this researcher in examining the history of CISM and how efficacious it was based upon survey responses. Some of these characteristics include number of years' experience in the EMS profession, age of participants, certification levels, and leadership as a distinction within the respondents' job description. Because there was a wide range of experience and other demographic characteristics of the participants, a comprehensive comparison of CISM was appreciated in the responses giving this research stronger validity than if such comparisons were not possible.

Results

There was no question that first responders experienced stress as a result of their job duties nor that stress management became a necessary component in helping these responders cope. Results of this research indicated that CISM was one of the most widely identified stress management methods in helping EMS workers and other first responders to manage stress in their lives. This researcher also examined the negative effects of stress as a result of:

1. On-the-job cumulative stress
2. Compounding stress between personal and professional lifestyles

Results of this research indicated that 95% of the respondents had heard of CISM and nearly 60% believed that it was helpful. An important finding was that a stigma had been identified particularly in the early days of EMS which illustrated that those who reached out for help in managing stress were considered weak or incapable of performing their job duties effectively. This stigma is corroborated in the findings of the literature review: that some of the reasons EMS professionals did not reach out for stress management assistance were because they thought they would be stigmatized as being weak, that they feared doing so could negatively affect their

employment, or that they did not think it was needed (Axelrod, 2018; Moran, 1998; Nash & Watson, 2012; Nemecek, 2018; Perry, 2014; Regehr et al., 2002; Steinkopf et al., 2016). The present research identified that those in managerial positions who had participated in a CISM intervention rated CISM with higher success.

Conclusions

Although the process of CISM has endured criticism, it remains the most widely accepted form of stress management for first responders in the United States, if not globally (PA House Bill 2508, 2018). Of those who participated in a CISM intervention at some point in their career, this researcher found that 2/3 of them believed that it was helpful. The survey respondents who reported to be in leadership roles overwhelmingly agreed that CISM was helpful. However, in spite of these high percentages, future research should investigate the population of first responders who do not access CISM interventions and who do not believe that the process is helpful.

Key Terms

- Advanced Emergency Medical Technician (AEMT) - provides basic and *limited* advanced emergency medical care and transportation with the basic and *some* of the advanced equipment typically found on an ambulance.
- Advanced Life Support (ALS) defines the skills that each certification is permitted to perform within their role. ALS providers are able to perform the same duties as BLS providers as well as more advanced skills such as insertion of intravenous lines, administration of drugs, and performing cardiac monitoring and defibrillation.
- Basic Life Support (BLS) defines the skill set as approved for these providers such as splinting and oxygen administration,
- Critical Incident Stress Management (CISM) represents a more holistic approach and a better overarching representation of the CISD process.
- Emergency Medical Responder (EMR) - performs basic skills with minimal equipment while awaiting additional EMS response.
- Emergency Medical Services (EMS) consists of emergency medical response agencies, such as an ambulance service, and provided care and transportation of the sick and injured to definitive care/emergency departments.
- Emergency Medical Technician (EMT) is a certification classification developed as a standard in the EMS industry. It defined a basic level of emergency medical provider.
- Prehospital Registered Nurse (PHRN) defines the group of registered nurses that are certified to function as nurses in the prehospital/out of hospital environment.
- Prehospital Physician's Extender (PHPE) contains the group of individuals that include physician's assistants who have also met the qualifications to function in their role in the prehospital/out of hospital environment.
- Prehospital Physician (PHP) is the group of individuals who are licensed medical doctors and who have also met the qualifications to function in their role in the prehospital/out of hospital environment.

Introduction and History of CISM

In the early stages of the EMS profession, there were no specialized resources or processes to aid this workforce in dealing with the atrocities that they would witness as they were performing their duties. Early in his EMS career, Dr. Jeffrey Mitchell, PhD, witnessed a horrific incident involving the fatality of a young woman. Dr. Mitchell wanted a person or place to access so that he could talk about what he had experienced. Upon discovering that there were no such resources, he vowed to enact change.

Dr. Mitchell paired up with psychologist Dr. George Everly and pioneered a process by which public safety workers could access help in the management of work-related stress (International Critical Incident Stress Foundation. (2018).). The process, termed Critical Incident Stress Management, was intended to assist first responders with managing the emotional burdens of the job and consisted of post-incident debriefings that were structured to convene homogenous groups of responders who were exposed to the same event (EMSI, 2013). As the EMS profession grew and stress responses became more implicit, CISM evolved to include cumulative stress and combination stress, which includes stress that occurs outside the public safety professions.

Rightfully so, EMS was still a new profession in the 1980s and was enduring its own set of formational challenges. "For almost three decades, there was nothing in the EMS education curricula that addressed psychological well-being even though CISM had become an accepted practice. It was not until the mid-1990s that the EMS curriculum included stress management education" (Swab, 2019, p. 38). Thus, the management of stress was hardly recognized or acknowledged, let alone addressed.

The CISM model is a structured intervention intended to be conducted immediately or almost immediately after first responders are exposed to a traumatic event. However, some of the research opposes CISM. Roberts et al., (2010) examined prevention of first responder posttraumatic stress

disorder (PTSD) through the use of other methods and found that interventions were not necessary for every responder involved in a critical incident but rather should be addressed on a case-by-case basis.

CISM identified emergency responses that were most likely to cause the greatest emotional duress, as opposed to identifying those who were in the most distress. Dr. Jeffrey Mitchell (2016) denoted these responses as the *Terrible Ten* and they remain as influential today as they were decades ago when first identified. These responses include: line-of-duty death, suicide of a colleague, serious line-of-duty injury, disaster or multi-casualty incident (MCI), the killing or wounding of an innocent person, any significant event involving children, prolonged incidents especially with loss of life, any personally threatening situation, events with excessive media interest, and any high-distressing event. Although these types of incidents generate the most frequent need for CISM interventions, public safety personnel certainly have a propensity for being affected by *any* emergency situation, especially considering that there are factors that can make an incident personal to the responders. For example, sometimes first responders identify with their patients by a certain geographic location, a song or photograph, clothing, or even a smell, all of which can stir emotions.

CISM is not therapy and it fell upon great criticism from behavioral health professionals who intensely criticized its processes. By the 1990s, research had begun to challenge the benefits of CISM, some of which professed it to be "unhelpful and possibly increase the one-year risk of post-traumatic stress disorder (PTSD) after a traumatic event" (Eifling & Moy, 2015, p. 33). Posttraumatic stress disorder (PTSD) had been thrust into the forefront and was defined by Williams (2017) as:

> Persistent and long-term changes in thoughts or mood following actual or threatened exposure to death, serious injury, or sexual assault that leads to re-experiencing, functional impairment, physiologic stress reactions, and avoidance of thoughts or situations associated with the original trauma (p. 618).

As experts in CISM and critics debated its efficacy and compared it to other potential methods, stress as a result of being a first responder continued to wreak havoc on these professionals. Negative coping strategies, such as increased alcohol consumption, threatened their well-being. "Traumatized drinking had become commonplace...which affected performance on the job and the ability to cope with inherent stressors" (Bacharach et al., 2008, p. 155). Negative coping further elicited the need to help emergency responders manage their stress. But if CISM was not the best method, what was? Stress management had to be acknowledged and addressed. Throughout the development of emergency medical services and other public safety entities, all of the fervent causes and persistent work for the betterment of the health and well-being of *the public* had been coupled by a nearly unpredictable cost: the work would sometimes leave scars on the psyche of *the responders*.

As outlined by Wallace (2016), behavioral responses might have serious negative impacts on public safety providers. EMS professionals were also at risk for "psychological imbalances secondary to vicarious trauma of the job, and in fact, these workers represented a different sector of suffering: the *indirect* victims" (Novara et al., 2015, p. 130). Even though first responders were not the ones experiencing the illness or injury, they were witnesses to the trauma of others, which could negatively impact their lives from a psychological perspective.

First responders stress can occur from a single, psychologically impactful incident or it can be a consequence of being exposed to multiple incidents that accumulate over time. This cumulative stress does not necessarily need to originate from *significant* events, but rather can result from "typical" everyday emergency responses that build up over time, eventually taking a toll. "Emergency healthcare workers and paramedics are constantly reminded of death, dying, and human fragility...and as a consequence, their own mortality" (Brady, 2015, p. 32). Mirhagi & Sarabian (2016) revealed that in the United States, 80% of emergency medical personnel rated their stress to be moderate or high. If gone undiagnosed or unacknowledged, cumulative stress was found to be just as damaging as the stress associated with a single violent act. "The day-in-day-out stress can quietly deplete one's emotional bank account" (Smith, 2011, p. 24).

Other stress management options were explored to assist first responders with managing stress and the increased demands of critical incidents. Psychological First Aid (PFA) was developed and became known as a process *and* a term, rather than a specific program as seen with CISM. According to Ruzek et al., (2007), PFA drew upon research evidence and was structured to be conducted in field settings similar to the immediacy of CISM interventions. However, one of the problems with PFA is that it was not specific enough and did not meet the unique needs that addressed the psychological trauma of first responders.

The literature review illuminated the significant number of stressors that emergency professionals are

exposed to as a result of their vocation. Although CISM had come under great scrutiny, it remains popular among first responders. The process is structured, consistent, and provides an opportunity to identify if responders need to be referred to further help. CISM interventions consist of a team of specially trained responders, including peers and mental health providers. This composition provides attendees with an opportunity to be present with their own peers who responded to the same incident, as well as CISM team peers who understand the profession and CISM mental health professionals who understand the psychology from a clinician's perspective. This researcher hoped to provide data about CISM and its frequency of use, how providers are exposed to interventions, and views on efficacy and success.

Method / Survey Instrument

A self-constructed survey instrument was created to examine stress in EMS responders. Specific questions targeted CISM, its frequency of use, and efficacy. The survey collected demographic information on the participants. Examined in this research were age and gender, EMS level of certification, number of years experience in the profession, and whether or not the survey respondents were in a position of management. These demographic characteristics were important as the data were analyzed relevant to the efficacy of CISM. Due to the ages and number of years experience of some of the participants, the data also added to the history of CISM.

Several question types were used including closed response questions, Likert-scaled items, and open-ended questions that permitted the participants to free write their experiences. Content validity was established through the utilization of five educational and research experts, four with CISM experience, who were affiliated with five different universities across the U.S. These experts reviewed the survey and provided feedback with revisions made by the researcher. Reliability of the survey was measured using Cronbach's Coefficient Alpha which was calculated at α=.87 indicating good internal consistency. Reliability was also further ensured through the use of an unbiased sample population.

Procedures

IRB approval was obtained through Robert Morris University, Moon Township, PA. The survey was then distributed electronically by email to all registered EMS providers in one Western PA region, approximately 2,200. Participation was voluntary and survey respondents under the age of 18 were excluded due to the sensitive nature of some of this research, including the suicides of first responders which is not discussed in this article.

The use of online surveys presents some unique impositions to the distribution and responses. For example, it is not known how many emails were not delivered or not opened. Also, an unforeseen circumstance affected this study when the EMS participant recruitment region experienced a significant traumatic event during the collection of survey responses. Responses to the survey could have been affected by this traumatic event, ultimately skewing the data. Hence, no second requests for survey completion were sent, the survey was closed, and only those participants who responded prior to the traumatic event were accepted. There were 153 completed surveys yielding a response rate of 7%. Examination of the number of times the survey was viewed, started, and completed revealed a 77% completion rate.

Participant Demographics

Participant demographic information indicated that 74.51% were male (*n*=114) and 25.49% were female (*n*=39). The majority of the survey participants were between the ages of 41 and 60 at 44.44% (*n*=68) while the next largest age population was between 26 and 40 at 38.56% (*n*=59). Lastly, 11.76% (*n*=18) were between the ages of 18 and 25 and 5.23% (*n*=8) reported to be over the age of 60.

The number of years experience varied with 2.61% (*n*=4) reporting less than one year of experience, 11.11% (*n*=17) reported to have 1-5 years experience, 16.99% (*n*=26) had 6-10 years experience, 12.42% (*n*=19) had 11-15 years experience, 12.42% (*n*=19) had 16-20 years experience, and the greatest percentage of respondents, 44.44% (*n*=68), reported to have more than 20 years of experience.

Most of the participants were either certified as EMTs (32.68%, *n*=50) or paramedics (57.52%, *n*=88). The remaining participants consisted of three EMRs, two AEMTs, six PHRNs, one PHPE, and three PHPs. In addition, participants were asked whether they held administrative positions and 24.18% (*n*=37) classified themselves as administrators. The administrator demographic became important as the survey results were analyzed for administrator perceptions of stress management, CISM, and its efficacy.

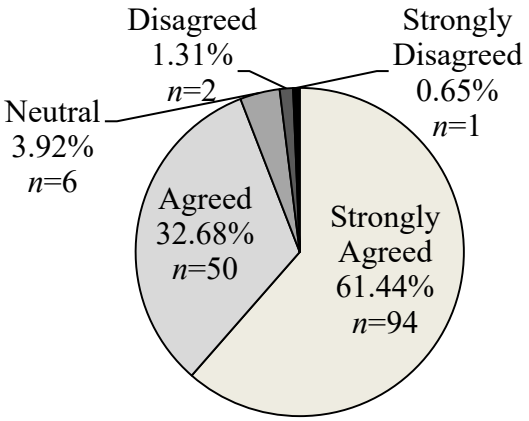
Results

This research was conducted to identify if first responders believe their profession is stressful, if stress is affecting their lives, and how to best manage stress and any negative effects. The history of Critical

Incident Stress Management (CISM) and its applications in public safety were a significant focus of the research. The survey was used to measure participant demographics, their perceptions of stress, and how it is managed.

The survey used a five-point Likert® Scale which included a neutral rating option and asked participants if they believed the EMS profession is stressful. It was not any surprise to the researcher that a large percentage of the respondents believed that the EMS profession is stressful. With just 4% being neutral in their response, and only 2% that disagreed, 94%, *n*=144 agreed that the EMS profession is stressful as illustrated in Figure 1.

Figure 1. Belief that the EMS profession was stressful as indicated by the survey participants



This finding corroborates the literature review. Elling (1980, in Cydulka et al., 1994) found that about 88.7% of paramedics reported having stressful jobs.

This article would not do the research justice without providing a glimpse of the contributing factors that increase job-related stress as identified by the participants. These factors are outlined in Table 1.

Table 1
Life Issues Identified as Potentially Increasing Stress That Could Lead To Poor Coping Methods

Potential Stressor	Strongly Disagreed or Disagreed		Neutral		Strongly Agreed or Agreed	
	n	%	*n*	%	*n*	%
Work	29	18.95%	38	24.84%	86	56.21%
Finances	42	27.45%	37	24.18%	74	48.37%
Relationships	49	32.03%	33	21.57%	71	46.40%
Higher Education (college)	55	35.95%	54	32.29%	44	28.76%
Childcare	62	40.42%	56	36.6%	35	22.88%
Health Insurance	66	43.13%	52	34.00%	35	22.87%
Other Caregiver problems such as caring for aging parents	73	47.72%	57	37.25%	23	15.03%

One of the survey questions polled respondents as to the length of shifts being worked in an attempt to identify if longer shifts were negatively impacting first responders. Upon examining the results, 92% of the respondents stated they were working shifts that were 24 consecutive hours in length─sometimes longer, and that working long hours had contributed to the increased stress. However, CISM was initially developed to address stress secondary to responding to emergencies, not stress secondary to organizational structure and nor did the initial process account for off-the-job stress.

As illustrated in Table 1, participants in this research identified factors in their daily lives, such as relationships and finances, that were also having a negative impact *in combination* with on-the-job stress. Meverden (2010) identified similarities between military personnel and disaster workers, including cumulative contact with disasters and death, marital, and relationship challenges. This form of cumulative stress was also acknowledged by the survey participants as being significant along with the job-related cumulative stress of being repeatedly exposed to traumatic events.

This study examined the process of CISM and how it impacted the lives of the participants. This researcher found that CISM was accessed more than any other resource, including the use of an Employee Assistance Program (EAP) and forms of professional therapy. Because EAPs were wildly popular at the time of this study, the finding that CISM was more accepted than all other resources is significant. Recall that CISM is not therapy and was never designed to be nor is it to be as an alternative to such. However, because the structure of CISM includes specially trained mental health professionals, CISM contains the ability to identify when a person may be in need of professional counseling or therapy and referrals may occur. In the absence of CISM, a person would have to seek therapy on their own, which is a far greater challenge than their attendance at a defusing or a debriefing. One of the positive findings of this research is that a relationship existed between a decreased ability to manage stress and the frequency in accessing resources such as CISM and counseling. Although only 8% of respondents indicated that they were rarely able to manage stress in their lives, it was encouraging that this group was indeed seeking a form of professional therapy.

Unfortunately, it has taken years and a lot of heartache for the first responder community to accept when one of its own is in trouble due to stress. Akin to helping others, first responders conversely criticized colleagues for needing the same. They had a reputation of eliciting a 'tough guy' attitude that originated from peer pressure─to say that if a responder admitted to being disturbed by an incident, any incident regardless of its judgment of severity, he or she was considered emotionally weak and not cut out for the job. This criticism spawned a stigma that persisted in the EMS profession for decades. As outlined in *CISM is Not Enough to Help Responders Deal with Difficult Calls* (2013):

> Responders were expected to basically suck it up: death and mayhem were part of the job, and *real* men (or women) should answer the call, then get right back to work. In reality, long-time EMS practitioners say responders were suffering, albeit in silence (para. 6).

But in recent years, this notion had started to diminish. As the public safety professions evolved, a better understanding was envisioned through first responder experience and their stress response needs. As has been so often stated, 9/11 changed the face of the United States, if not the world. First responder professions became recognized as being critical to the infrastructure, and governing agencies developed plans that included stress management (Cherry & Trainer, 2007, p. 1). Administrators began to encourage the use of resources, including CISM and "researchers and clinicians recognized that they needed to shift the first responder mind set so that treatment interventions would be helpful" (Flannery, 2015, p. 265).

Stress management changes were occurring, and this research corroborates positive change. Participants responded that a caring administration was important and also established methods of stress management as "...*supporting and providing* counseling, outside training on the overall management of stress including mental health issues, and suicide awareness and prevention" (Swab, 2019, p. 130). This researcher discovered that it was not enough to simply provide these resources and trainings. It was equally, if not more important to the participants in this study that their administration supported their use. Immediacy was also a theme. Swab (2019) found that when management provides immediate support, such as CISM, it sends a message that they cared enough to at least provide help, whether that help was accessed or not.

Differences between the structure of EAP and CISM were examined. This research attempted to identify if one process was more readily accessible than the other as well as to determine the efficacy of each. Results indicated that 95.42% (n=146) of the overall survey population affirmed that they had heard of CISM and only 9.58% (n=14) disagreed that

CISM was helpful. However, of the 14 who disagreed, four of them had never been offered to attend a CISM intervention warranting further research into this group of responders. Several who had been offered but did not attend CISM reported their reason to be that they did not believe it was needed. Other reasons and the overall population are discussed later and are illustrated in Figure 5.

The sub-population of those who disagreed that CISM is helpful (*n*=14) was examined further for perceptions of its efficacy as well as access to it. Their demographics include:

Administrators: *n*=3

Certification Level:

- Paramedics - *n*=10
- EMTs - *n*=2
- PHRN - *n*=1
- PHP - *n*=1

Experience:

- >20 years experience - *n*=8
- 16-20 years experience - *n*=2
- 11-15 years experience - *n*=2
- 1-6 years experience - *n*=1
- < 1 year experience - *n*=1

Gender:

- Male - *n*=9
- Female - *n*=5

Further characteristics of these 14 participants include that all but one appears to have reached out to some form of help with the most prevalent being talking to a peer, friend, or co-worker. There is a natural relationship between number of years' experience and age with 13 of these respondents being between the ages of 26 and 60. None of them were over the age of 60 and one was between the ages of 18 and 25. All 14 believed they were lacking in sleep and 64% of them agreed that their diet was unhealthy.

The most significant negative coping factors reported to be 1/3 of them were smoking, almost 2/3 of them were increasing their food intake at least once a week, and 14% were drinking alcohol on a daily basis. In comparison to the overall sample population in this present study, there is a significant increase in all of these negative coping mechanisms in the 14 participants who disagreed that CISM is helpful.

Significant positive coping methods were reported and include that 64% of them were participating in hobbies at least once a week and 100% at least once a month, 64% were exercising at least once a week, 71% of them listened to music on a daily basis, and 36% regularly participated in religious or spiritual activities at least once a month. These numbers were also compared to the overall sample population. Positive coping methods were similarly accessed by both groups. The only appreciable differences were that music and hobbies are slightly more participated in by those who did not think CISM was helpful.

***Figure 2*. Survey participants' awareness of CISM**

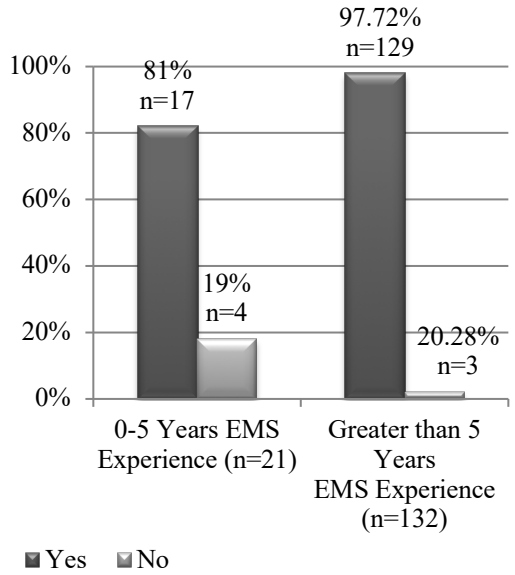
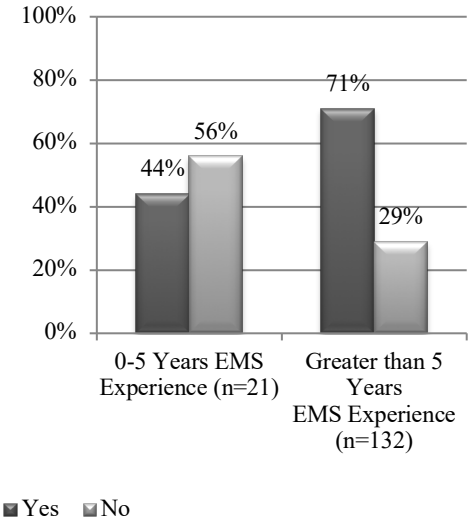


***Figure 3*. Survey participants who had been *offered* to attend a CISM intervention**



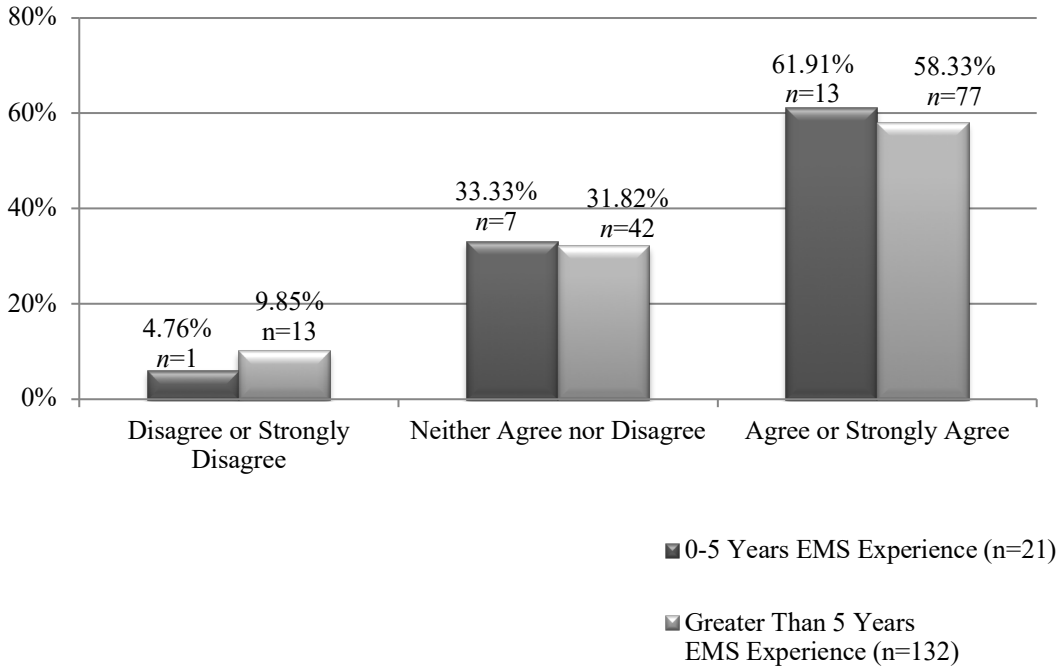
The efficacy of CISM had been criticized over the years as identified in the literature review (Bledsoe, 2011; Wagner, 2005). The results of this research are encouraging in defense of CISM. A relationship was found between number of years in the profession and an awareness of CISM as well as being offered to attend an intervention. Results are illustrated in Figures 2 and 3. Overall, 90 of the participants agreed, 49 were neutral, and only 14 disagreed that CISM was helpful. Upon further examination, 98% of those who had been in the profession greater than five years had been made aware of CISM as opposed to 81% being aware if in the profession for less than five years. Regardless of number of years experience, both groups rated the efficacy of CISM very similarly as illustrated in Figure 4. There was a relationship illustrated in those who disagreed. Their rate was twice as great for those who were in the profession longer.

The perceptions of efficacy are consistent across other participant demographics. This research also examined age, gender, certification level, and leadership distinction. There were two outlying findings: a greater percentage (12.82%) of female participants disagreed that CISM was helpful in relation to the overall number of female participants (*n*=39). Additionally, although the number is small (*n*=8), 100% of the participants over the age of 60 agreed that CISM was helpful. Hence, these two characteristics should be examined in future research.

Survey participant administrators were also examined for their views on CISM. The statistics remained fairly consistent. A total of 37 administrators participated in and all but one had heard of CISM (*n*=36). This finding is central, given the importance of a caring administration being identified by the overall participants. Another consideration is that administrators are the ones who usually request CISM for larger events. Figure 3 illustrates participants who had not been *offered* to participate in CISM which could have been the result of lack of administrative action.

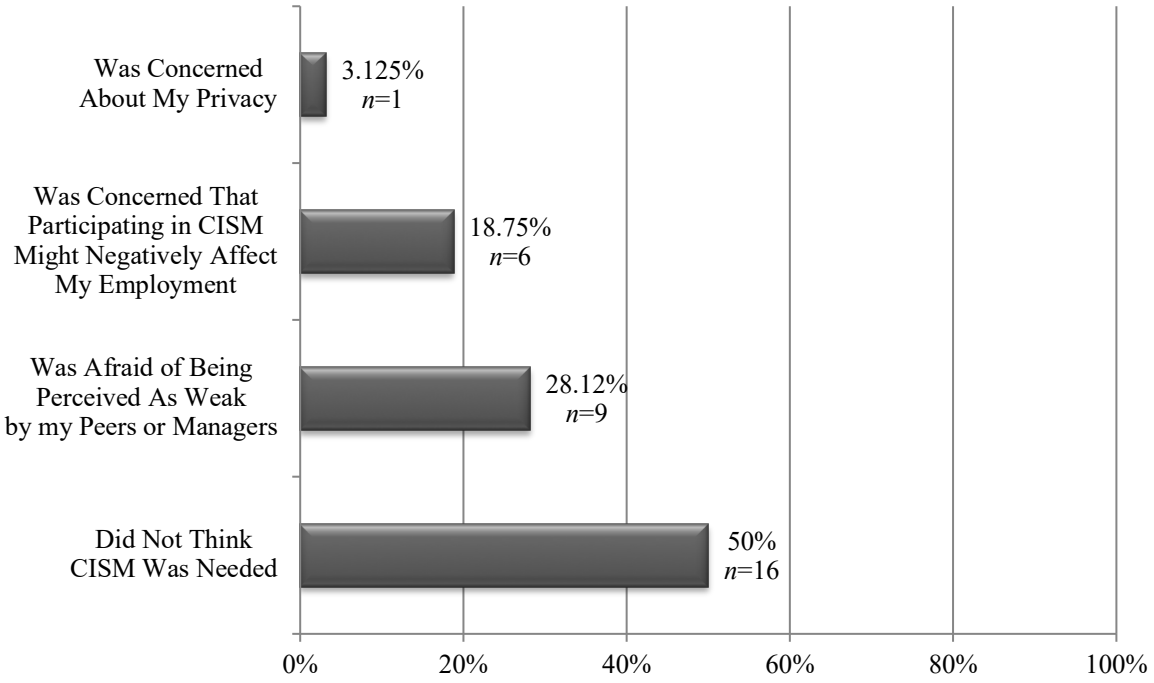
Of the administrator population, 29 had been offered to attend a CISM intervention and 86.21% (*n*=25) had participated in one. The four administrators that had not participated in a CISM intervention reported they did not feel it was needed *for them*. Of the 86.21% (*n*=17) that participated, they believed that it was helpful. The research further asked why respondents that had participated in a CISM intervention, 68% were not participating in CISM and findings of all respondents who had not participated are illustrated in Figure 5.

***Figure 4*. Participant perception as to the efficacy of CISM**



The results in Figure 5 indicate that half of the participants who had not attended a CISM intervention did not think it was needed and the rest of the responses indicated that they were afraid of the stigma that was prevalent for so many years as discussed earlier in this article.

***Figure 5*. Reasons EMS professionals had not participated in CISM even after being offered**



Discussion

Critical Incident Stress Management (CISM) was a process developed to help first responders manage stress in their lives. In its early days, CISM was the only recognized process for aiding these workers to manage job related stress. As the professions evolved, many began to question the need for CISM, its structure, and benefits. Unlike other resources, CISM was designed to provide immediate support through the use of specially trained peers, making this form of stress management more welcoming. First responders believe peers can associate and understand their experiences. Newer programs such as PFA and EAPs were introduced but CISM continues to be most recognized as of the writing of this research and evidenced by *House Bill 2508.* Additionally, CISM had been a resource for EMS workers much longer than other processes, and unlike EAPs that require an affiliated fee through membership of organizations, CISM was designed to be non-profit and provided at no cost.

This research found that potential changes could be made to current practices about promoting stress management. For decades, many responders would not admit they needed help due to the stigma of being emotionally weak that had pervaded the industry. As the professions grew and the world was exposed to tragedies such as weather-related disasters and terrorism, a better understanding of first response was attained. Top officials and governing agencies acknowledged the emotional toll these responders were exposed to and CISM and other programs grew in popularity as the industry took note of this proactive and supportive approach. This new philosophy was changing the culture of stress management and behavioral health needs of first responders. The stigma had started to collapse. First responders were now able to admit they needed help, were able to seek help without being judged, and were supported in doing so.

This research found that CISM is being promoted but the number of years in the profession affected awareness. Participants who had been in the profession for less than five years were not as likely

to have heard of CISM. This finding indicates that educators and administrators can improve in this area.

This study uncovered that 9.58% (*n*=14) of the participants disagreed that CISM is helpful. Further, four of this subset reported that they had never been offered to participate in a CISM intervention. Although small, this subgroup has the potential to provide a better understanding of stress management education of first responders. If they had not been offered to attend a CISM intervention, what is the reason? Did they have a supportive administration? Was their opinion of CISM the perception of another person's experience? Did peer pressure again instigate the stigma of being weak for accessing help?

Positive and negative coping methods were analyzed. A significant increase in all of the negative coping methods was found in the group of participants that did not believe CISM was helpful. Future research should investigate negative and positive coping methods.

The longer a person had been in the profession indicated that he or she was more likely to have been offered to participate in a CISM intervention. However, being in the profession longer and believing CISM is not helpful was relational at twice the rate when compared to less experience. Could personality be an influence? Were other coping methods being used? Could organizational structure and support or access to support outside of work be contributing factors? This finding should be investigated in future research.

Although CISM had fallen upon criticism, the consistency in its efficacy in this research is noteworthy. However, there are a couple of characteristics that warrant further research based upon this study. The first is that in comparison to the percentage of males, a higher percentage of females disagreed that CISM is helpful. Additionally, there were only eight participants who reported to be over the age of 60, but all eight of them strongly agreed that CISM is helpful. Future research should seek to determine why this may be dominant. In support of the latter, several older first responders were seen giving advice to their younger peers. They stated that in the early days of their first responder careers, they did not have a method that helped them to understand their emotions, that promoted talking, and provided advice for seeking further help. These people promoted CISM and any process that provides a pathway of such (J. Swab, 2020, personal communication).

Conclusion

This research yielded 153 survey respondents in one Western Pennsylvania EMS region who voluntarily participated in a stress management study. Data were analyzed and revealed CISM is a significant resource in aiding first responders with stress management. Participants who thrived the best under the stressful lifestyle of being an EMS provider were the ones who were surrounded by supportive family members, friends, co-workers, and administrators.

A stigma that criticized any responder who admitted to needing help as being weak and unfit for the job had plagued first responders for nearly 50 years. This research illustrated that the stigma is starting to fade, but more work needs to be done. The following remarks were made by participants in this research (Swab, 2019):

- "Problems need to be identified. Inform people that asking for help and receiving it are a sign of strength, not a sign of weakness."
- "I would fear that they (management) would think I was not up to doing the job or would brush me off."
- "When issues arise, I am typically told to find a solution." (p. 148)

This research provided an insight to CISM interventions as well as their efficacy. CISM was accessed more than any other resource by survey participants, followed by EAP. Future research should continue to examine the propensity that EMS workers will use either of these two resources or perhaps other resources in an attempt to identify best methods of stress management.

Cumulative events were a predictor to increased stress in first responders. Cumulative stress might include day-to-day job duties, one or more significant traumatic event(s), and/or the inclusion of personal factors as outlined in Table 1. The three top stressors were work, followed by finances, and relationships. Future research should focus on access to resources in an attempt to help these professionals manage personal factors as well. Throughout all of the criticism on CISM, the findings in this research that examined its efficacy are encouraging. As one administrator remarked: "I believe that CISM and an EAP can be extremely effective in helping those in need to manage their stress, including after a difficult or tragic incident or event" (Swab, 2019, p. 141).

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