Critical Incident Response
Updated Literature Review

Patricia A. Herlihy Ph.D. RN

February 28, 2021

Submitted to:

Jeff Gorter MSW

VP Crisis Response Clinical Services
R3 Continuum

Introduction

During the last ten years there have been numerous mass casualty events (MCE) in the United States including: the San Bernardino shooting; Las Vegas shooting, Pulse Nightclub shooting; Pittsburgh Synagogue shooting; Dayton Ohio shooting; Parkland School shooting and, more recently, the Atlanta shootings targeting Asian Women. In addition, there have been unprecedented high-profile/high intensity crisis events that have impacted the Nation, such as the Covid 19 Pandemic, the civil unrest following the death of George Floyd, and the assault on the US Capitol Building on January 6, 2021. Historically, incidents as buildings collapsing, train and bus collisions, plane crashes, earthquakes and other large-scale emergencies like the Oklahoma City bombing in 1995 and the September 11 attacks in 2001 are further well-publicized examples of mass casualty incidents. Finally, in addition to these major newsworthy incidents there are daily events that require Disruptive Event/CIR interventions such as: robberies, layoffs/downsizing, and deaths in the workplace. In response to both the larger MCEs and the more "routine" daily interruptions, employers have begun to take a more proactive stance to anticipate and prepare their workers for potential disruptions of any size in the workplace.

In all these cases, the continuity of business and organizational operations have been severely disrupted. Such events can be viewed through the lens of Nassim Nicholas Taleb"s book: The Black Swan: The Impact of the Highly Improbable (Taleb, 2007). Such events were unexpected and unplanned for. The growing recognition and frequency of such incidents has reverberated across all organizations and pushed them to consider how to quickly restore the continuity of their operations and ability to function. Obviously, such continuity efforts include programs to support employees in their recovery to normal functioning and productivity. Further, business leaders are frequently being held accountable for their response to crisis events, with both internal and external stakeholders expecting a humane and appropriate response – or being judged harshly if they fail to do so.

One response to these tragic MCEs is an effort by the National Institute of Standards & Technology (NIST) Public Safety Communications Response (PSCR) Division. They are hosting a meeting early in 2021 focused on !Building Apps for Mass Casualty Events and Triage" (NIST, 2021).

In 2015, this author conducted a literature review focused on the Critical Incident Response field (Herlihy, 2015). This current paper explores and emphasizes the shifts that have occurred since that time and seeks to update how language related to practice has shifted and evolved, what new models of delivery have emerged, and new research published.

New Terminology

The overwhelming majority of CIR published articles continue to use the phrases: critical incident; critical incident response; critical incident de-briefing; critical incident management; and psychological first aid (PFA). Following these terms, SAMSHA (Substance Abuse Mental Health Services) has created a manual entitled: **TIP 57: Trauma-**Informed (2014).

SAMSHA's manual helps behavioral health professionals understand the impact of trauma on those who experience it. The manual addresses patient assessment and treatment planning strategies. These strategies support recovery and the development of a trauma-informed care workforce. "Trauma-Informed Care is a strengths-based framework grounded in an understanding of and responsiveness to the impact of trauma. It emphasizes physical, psychological, and emotional safety for both providers and survivors, and creates opportunities for survivors to rebuild a sense of control and empowerment." (Hopper, Bassuk, & Olivet, 2010, p. 82)

According to the SAMSHA Manual's Advice to Counselors: Evidence related to immediate interventions suggests that:

• Early, brief, focused psychotherapeutic intervention provided in an individual or group format can reduce distress in bereaved spouses, parents, and children.

• Selected cognitive–behavioral approaches may help reduce the incidence, duration, and severity of acute stress disorder (ASD), PTSD, and depression in trauma survivors.

• A one-session individual recital of events and expression of emotions evoked by a traumatic event does not consistently reduce risk of later developing PTSD. In fact, it may increase the risk for adverse outcomes. Perhaps CISD hinders the natural recovery mechanisms that restore pre-trauma functioning (Bonanno, 2004).

• The focus initially should be upon screening with follow-up as indicated.

Below is a checklist to remind professionals of the key items to focus on in the early stages of recovery:

Advice to Counselors: Core Actions in Preparing To Deliver Psychological First Aid

- Contact and engagement
- Safety and comfort
- Stabilization
- Information gathering: Current needs and concerns
- Practical assistance
- Connection with social supports
- Information on coping
- Linkage with collaborative services Source:

National Child Traumatic Stress Network & NCPTSD, 2012.

SAMSHA's manual is a great reference for crisis intervention and trauma at any level. Let's now turn to some more recent developments in the field of crisis intervention.

One external vendor within the last ten years has diverged from this trend and coined the phrase Disruptive Event (Gorter, 2016). The Crisis Care Network hosted a Critical Incident summit in San Diego in 2015. Attendees included an impressive group of practitioners and researchers in CIR, primarily associated with the Employee Assistance industry (EAP). Several important messages emerged during this gathering. Nicole Stelter from Kaiser Permanente and Jim O'Hair from Northrup Grumman described the "disruption" to their fields of health care and defense contractors. Gary De Fraia, a researcher from Magellan who led their trauma team presented on organizational outcomes following disruptive events.

Although the concept of "disruptive events" originally surfaced from a data mining project sponsored by CCN earlier in 2011, this language was actually unveiled at the San Diego summit. The rationale for the switch from terms like Crisis Intervention to disruptive events was an attempt to shift the primary attention of the field from exclusively a clinical focus to one that also reflects business continuity objectives, a primary deliverable for employee assistance customers.

Two additional phrases that have sprung up in relation to critical incidents are Adaptive Capacity and Hardiness. While both emerged in the late 1970s, they have not surfaced in the context of CIR literature until recently, as these concepts have particular applicability to long-term behavioral health challenges in the context of a global pandemic (Gorter, 2020). The dominant focus over the last 10-15 years in CIR has been the exploration of people"s resilience (Bonnano, 2010). Many have studied resilience and how to integrate it"s strengths into various clinical interventions that permeate CIR. However, these resurgent phrases have shown new light and meaning for CIR professionals, particularly in the context of the Covid 19 Pandemic.

Adaptive Capacity – This label refers to a leader's ability to respond with purposeful and positive regard to an unexpected shock or challenge, such as the COVID pandemic. It's grounded in an attitude rather than defined by an action plan (Gorter, 2020). Another way to describe adaptive capacity is the ability to incorporate knowledge and critical thinking about complex problems to effectively adapt one"s behavior.

The other term gaining interest by the CIR community is ***Hardiness***. The concept of *hardiness* began to appear around 1979 (Kobasa, 1979b). According to Kobasa (1982), hardiness is a general quality that emerges from rich, varied, and rewarding childhood experiences. This quality manifests itself in feelings and behaviors as a personality construct that is characterized by commitment, control, and challenge (Funk, 1992). Maddi and Kobasa (1984) wrote that hardiness is "a general sense that the environment is satisfying," This contributes to a person approaching situations with curiosity and enthusiasm or commitment. According to Maddi and

Kobasa, a hardy person views potentially stressful situations as meaningful and interesting, sees stressors as changeable, and sees change as a normal aspect of life rather than as a threat. A hardy person views change as an opportunity for growth. By possessing these characteristics, a hardy person is able to remain healthy under stress. Specifically, Kobasa's focus on hardiness led to his belief that hardiness is an insulating factor against life's stressors.

Decision Inertia – This is a relatively new phrase coined by Alison Power and Ven Den Heuvel (2015). It refers to the cognitive process associated with a decision maker being immobilized and failing to choose between equally perceived aversive outcomes which inhibits the process of taking timely action.

A recent example of this was the convoluted decision making with the assault on the US Capitol building on January 6, 2021. Capitol police, Washington DC police, the FBI, and US National Guard were unable to effectively communicate in real-time and were distracted from timely and efficient coordination on actions to prevent the break-in and removal of the mob from the Capital Building (Mazzetti, 2021). Thankfully, the Capitol Police did an outstanding job protecting the legislative representatives and their staff and moving them to safe locations.

Another example of decision inertia occurred in London (2017) during the Grenfell Fires. Professor Laurence Alison, Director of the Centre for Critical and Major Incident Psychology at the University of Liverpool uses this example to explain human decision-making in potentially fatal circumstances. In this situation, trained military personnel and emergency responders found it hard to decide to evacuate apartments in time to save lives. Experts assumed that the traditional rule of keeping people in their apartments, which were supposed to have been built to withstand fires, was the correct decision. Unfortunately, their indecision and the associated delays to evacuate the tower led to the death of 70 individuals and another 70 injured. The resulting delay, referred to as "redundant deliberation" happens when people take too long to make a choice between difficult options.

When presented with competing options, critical incident decision makers often struggle to commit to a choice, in particular when all options appear to yield negative consequences. Despite being motivated to take action in disasters, terrorism, major investigations, and complex political interventions, decision makers can become inert, looping between phases of situation assessment, option generation, and option evaluation. This "looping" is functionally redundant. When it presents itself and persists, the opportunity to take effective action is lost.

While not a new term, one that continues to be relevant today is the concept of ***received social suppor*t** versus ***perceived social support***. In 1982 Figley introduced the concept of the "cost of caring". Figley was referring to EMT professionals who dedicate their daily efforts to respond and help those suffering from illness or trauma. This cumulative empathy frequently has a cost which some have labeled as: compassion fatigue; secondary trauma or even vicarious traumatization.

Prati and Pietrabtoni (2010) conducted a survey with firefighters to understand what type of support is most helpful to deal with the broad range of health and mental health consequences

resulting from their specific type of work. These researchers conducted a meta-analytic review to better understand the role of both *received* and *perceived* social support in promoting mental health among first responders.

The research strongly suggests that the *offer of support* has an equal if not greater salutary benefit than the actual participation in support activities. In other words, knowing that help is offered/available was in itself beneficial, regardless if the participant took advantage of the support. While this meta-analysis was specifically focused on first responders, it tacitly suggests that the offer of clear and tangible support is helpful to the generalized employee workgroup following a disruptive event, not just those who actively engaged in the services offered by their employer. This is a premise long espoused by the employee assistance industry.

Although there are not dramatic changes in the terminology in the CIR field within the last five years, one can see researchers and practitioners struggling to clarify the nuanced meanings of how individuals experience trauma. Specifically, employees are searching to regain a sense of resiliency and return to their normal (pre-event) productive selves.

CIR Models

The ***Hobfoll et al. 2007*** paper entitled "***Five Essential Elements*** of immediate and mid–term mass trauma intervention" continues to provide a significant lens to examine new developments in the field. The nearly twenty-five professionals who contributed to this article offer sage advice. They write about the devastation caused by disasters and mass violence and call for the field to reach consensus on a specific intervention policy grounded in the most current research findings. The authors point out that in 2007 no such research existed. Unfortunately, fourteen years later, that situation is still true. No evidence–based consensus has been reached that supports an indisputable set of recommendations for intervention during the immediate and the mid–term time following mass trauma events. These authors point out that it is unlikely that there will be evidence in the near term from clinical trials that cover the scope and diversity of disaster and mass violence events. Their response to this fact was to assemble a worldwide panel of experts who study and treat those exposed to and experience disaster and mass violence. The goal of the gathering was to extrapolate from related fields of research and seek consensus on an agreed upon set of intervention principles. They identified five empirically supported intervention maxims to be used to guide and inform intervention and prevention efforts at the early to mid–term time stages. The five principles include: 1) a sense of safety, 2) calming, 3) a sense of self and community efficacy, 4) connectedness, and 5) hope.

The panel also recognized that effective interventions must include not only medical and mental health professionals but also key stakeholders/gatekeepers such as mayors, military commanders, school teachers, and members of the community. This suggestion has evolved and been adopted over the last 5-10 years. The more recent focus on Peer Support Groups to offer support some of these incidents is a good example of this extension to include various directly involved and

impacted stakeholders/gatekeepers for employee groups with strong and clearly defined cultural expectations (i.e. law enforcement, fire service, military, etc.).

Psychological First Aid (PFA) - As far back as 1965 Rapoport stated that "a little help, rationally directed and purposely focused at a strategic time, is more effective than extensive help given at a period of less emotional accessibility". Some feel that this was the beginning of the model of Psychological First Aid which has matured since that time into one of the main tenets of the Crisis Intervention Field (Everly, 2018). Current iterations of PFA are informed and shaped by the 2007 work by Hobfoll, etal, referenced above, and is an operational expression of the Five Essential Elements.

Psychological first aid (PFA) has been recommended or endorsed by the World Health Organization, the National Institute of Medicine, the National Institute of Mental Health, the American Red Cross, the International Red Crescent, the American Psychological Association, the Federal Emergency Management Agency, and the American Psychiatric Association. Such a rare unanimity of opinion supports the ongoing perceived need for this intervention methodology as a primary element in most models for CIR Interventions today.

Johns Hopkins RAPID PFA - Over the last decade, the Johns Hopkins Center for Public Health Preparedness has worked to develop a simple evidence-based model of psychological first aid referred to as RAPID PFA (Everly, 2017), specifically focused on healthcare workers. The RAPID-PFA program combines lecture and small group activities to address five core components: reflective listening, assessment, prioritization, intervention, disposition, and self-care. Everly (2020) reported that RAPID-PFA training improved knowledge, self-efficacy in the intervention application, and confidence in personal resilience for non-mental health trained public health personnel.

One of the bases for the development of this RAPID PFA Model is that as support grows for its utilization beyond disasters alone, consideration should be given to the application of PFA in high-risk occupational settings. While RAPID PFA has begun to be used in emergency services, it would also seem to be well suited for fostering the growth of resilience in healthcare settings where burnout and vicarious traumatization may approach the prevalence of silent epidemics (Everly, 2019).

In general, healthcare professionals, like other professions with highly specific roles and frequent exposure to high-intensity events (i.e. police, fire, EMT, Military, etc.) appear resistant to seeking psychological assistance for coping with the stressors they often see as just part of the job. Some may also attach a stigma to the utilization of such formal services. Rather, they appear more inclined to discuss stressful situations with "peers" who understand the cultural context and demands of the profession. As a result, we are seeing an increase in the adoption of PEER Support Groups within the nursing profession, as an example (Pallas, 2020).

PFA represents a psychological intervention that can be easily and quickly taught to enhance the "peer" communication experience. They can be established whether in an informal exchange or a more formal peer-to-peer support intervention in institutions with formalized trainings. PFA may also prove valuable in fostering resiliency in healthcare professionals. It further suggests that the establishment of formal "peer support" groups in healthcare institutions may be seen as a means of expanding already existing safety initiatives and supports Hobfoll's notion of increase use of "gatekeepers".

The rationale for the Hopkins RAPID – PFA relates to an increase in attention in the CIR field to Peer Support Groups as a means of dealing with the on-going stress and trauma of certain professional populations. As mentioned above this is true in health care, as well as with law enforcement, and within school and academic settings.

Acute Incident Response (AIR) – This model appears in the nursing literature particularly around concerns of stress levels in emergency rooms. AIR is a practical strategy for providing a peer driven response to acute incidents in the emergency setting. The psychological support framework draws on existing concepts of critical incident stress management along with elements of contemporary "hot debriefing" models to create a concise, clinician-led response program incorporating elements of both work group peer support and clinical team performance improvement. The Acute Incident Response program is novel in its concurrent focus on both salient clinical factors and emotional responses of affected clinicians. The AIR model is highly transferable and can be rapidly applied in a wide variety of acute care settings. Further rigorous evaluative assessment is required to formally quantify the impact of the AIR framework in clinical environments (Pallus, 2020).

Two models in use stand out from this review: the Hopkins RAPID – PFA and the Peer Support Groups. The Hopkins model, while an offshoot of Mitchell's earlier work with first responders has also incorporated PFA into a well-designed training program for practitioners. Peer Support Groups, while used for years, are now receiving increased attention in the CIR field as it becomes more selective in working with the effects of compounded trauma in specific populations like law enforcement, school teachers, and health care professionals.

It should be noted again that the above-described models of Peer Support originated from and directly apply to very specific and highly defined professions (police, fire, EMT, healthcare, etc.), and that these professions have some level of pre-existing training or perspective on crisis response. That is, responding immediately to an emergency situation is "familiar territory" and not perceived as outside of expected professional capacity. The majority of EAP-related CIR/Disruptive Event Management services occur in a more generalized employment setting (retail, manufacturing, office, etc.), involving employees who do not have a background in nor an expectation of crisis as a common occurrence. A Peer Support approach may have less applicability in other employment settings, and poses significant challenges in training, availability, and reliability.

While it is somewhat discouraging that there has been no ground-breaking discovery, introduction, and/or adoption of a more clinically effective model of CIR; there does seem to be a deepening understanding of how ”variations on a theme” of existing practices can help improve individuals and the organizations affected by a crisis.

Updated Research

The most rigorous research over the last five years has been Bonnano's attention to the nuances of resilience. Bonanno, professor of clinical psychology at Teacher's College, Columbia University, recently spoke of a heterogeneity rather than a homogeneity of responses to traumatic events (Bonnano, 2019). He emphasizes that the resilience trajectory is not only most common, it's the "majority," of responses to any traumatic event.

According to Bonnano, most people fall into the cognitive trap of binary thinking that people either suffer from PTSD or they don't: rather than understanding the myriad of response differences individuals experience after a traumatic event. Many of the researchers that have worked with Bonnano over the lasts 15 years found that close to 60% of individuals bounce back from adversity whether from a mass shooting, spinal cord injury, or loss of a loved one while only 15–20 % may experience some form of serious symptoms leading to PTSD.

Dissertations on topic of CIRs - Over the last five years there have been a handful of related dissertations on CIR practice.

> ***Jeffrey Turney (2014)*** conducted a quantitative study that explored relationships between a law enforcement supervisor's personal characteristic and the attitude a supervisor had towards the Critical Incident Stress Management (CISM) program. The study solicited law enforcement supervisors (n = 6635) who were graduates of the Federal Bureau of Investigation's National Academy (FBINA). Although the study's findings only indicated a weak link between a law enforcement supervisor's characteristic and the attitude a supervisor has towards the CISM program, it also showed supervisors within the study overwhelmingly supported the program. Knowing this support exists could still provide stress management program managers with invaluable insight, as processes are developed to mitigate critical incident stress in law enforcement.
>
> Another dissertation by ***Elizabeth A. Tracy (2017)*** noted that there was no existing data regarding how closely CIRs adhered to intervention models or what theoretical frameworks informed their practice. This study sought to understand, from the perspective of workplace CIR, what practices they employ and why. The design was a two phased, sequential, mixed method explanatory design. Phase one was a quantitative internet-based survey (n = 110) and phase two was a qualitative phone interview (n = 12) designed to enhance the understanding of phase one results and provide rich data on the experiences of workplace CIRs.

The results indicated that type and nature of the crisis as well as timing of response from the event influenced the CIR's approach. CIRs were informed by brief treatment modalities and even though CIRs have limited understanding of the phrase "business continuity", they still provide services in the workplace. For the most part in this survey practitioners responding to CIR events described modifying "Mitchell"s CISD Model to address the needs of civilians in the workplace.

A third dissertation by ***Jennifer G. Taylor-Gray (2018)*** also focused on the law enforcement population in an attempt to identify which type of CIR services were utilized with this population. A further objective of the study was to report what clinicians consider to be best practices regarding CIR services for law enforcement personnel. Taylor-Gray used the appreciative inquiry method to interview twelve employee assistance professionals. All of these twelve subjects specialized in working with law enforcement personnel and frequently responded to critical incidents. The empirical evidence from this study revealed that CIR services were available to these employees but there was not a consensus regarding what services are viewed as most effective. The results indicate evidence-based programming does not appear to be a primary practice or concern among the providers interviewed.

The final dissertation reviewed in the literature was by ***Travis Norton (2018)*** and once again focused on the population of law enforcement. Norton observed that the initial phases of a critical incident were an "extreme challenge" for this population. His study focused on addressing the gap in the research and provided important insight into the factors and dynamics at play during this initial time period with a focus on the major issues occurring. An analysis of 15 after-action reports (AARs) from large-scale events was conducted and used to formulate useful percentages on the primary errors occurring during these events. The results of the analysis were utilized to create the framework for the timeline of the initial response phase. The ultimate goal was to provide useful information for these events by drawing attention to primary issues for future incident commanders and law enforcement first responder consideration.

Measurement of CIRs

One of the recommendations arising from the 2015 review of CIRs was to develop measurement tools to document the effectiveness of interventions. Chestnut Global Partners (CGP) building on their earlier success with the Workplace Outcome Suite-WOS (Lennox, 2010) developed an empirically based tool called the Critical Incident Outcome Measurement (CIOM). This tool expanded the original design of WOS to demonstrate and quantify the positive workplace effects of CIR services offered by EAPs. Similar to the WOS, the CIOM tool explored the five constructs of emotional distress; presenteeism; resiliency; return to work time, and perception of leadership's role.

In the spring of 2017 a beta test of the CIOM was conducted with a sample of over 250 individual responses to demonstrate the scientific validity of this tool. At that point a detailed psychometric analysis was conducted that confirmed the validity and reliability of this tool. (Lenox et. al., 2018). Further feedback was incorporated to help with the implementation of the measurement tool in the field. Full program implementation began in 2019 (Kannan, 2020). At this time more data is needed to fully evaluate the effectiveness of this tool.

COVID Related Research

By September 2020, at least 159,300 health care personnel had contracted COVID-19 in the United States. Of that number over 702 died (CDC, 2020). A study was conducted to better understand the negative emotional effects of individual involvement in crises. (Caldis, 2021).

Results found that intensity of involvement does associate with emotional exhaustion at work and that higher prosocial motivation exacerbates this relationship. In other words, emotional exhaustion and depression differ regarding their contextual specificity. The former is centered on the individual's social and organizational work context and the latter is more global and reflects general personal feelings and beliefs.

Prior work had established that health care workers were at risk for "compassion fatigue," an exhaustion that develops from caring for others experiencing trauma, and has differentiated it from the direct experience of trauma to oneself (Figley, 1982). Health care workers intensely involved in the COVID-19 pandemic are facing both the indirect trauma experienced by patients and their families, as well as the direct threat of personal harm from the virus itself. Given this dual threat, the COVID crisis is creating an intense strain on health care workers" ability to regulate their personal resources as they seek to manage their own fears while providing care to others, putting them at risk for emotional exhaustion and depression.

Article in NYT (Jacobs, 2021) Over the last year, there have been articles on the psychological trauma of overworked intensive care doctors forced to ration care. The crushing sense of guilt for medical personnel who unknowingly infected patients or family members, and the struggles of those who survived Covid-19 but are still hobbled by the fatigue and brain fog that hamper their ability to work. Kaiser Health News and the Guardian currently report more than 3,300 nurses, doctors, social workers and physical therapists have died from Covid-19 since March 2020.

The research related to the CIR field in the last 5 years has been spotty compared to the numerous studies conducted post September 11, 2001. Yet, Bonnano's continued research on resilience is quite exciting and helpful in correctly assessing an individual's response to trauma and not over dramatizing responses to critical incidents. The development of the CIOM is encouraging in that EAPs now have a validated tool to document effectiveness of their interventions. However, it is still too early to know if widespread uses of this tool will be implemented.

The handful of dissertations included in this review illuminated an interesting attention on the law enforcement community. Perhaps this is related to the sociological concerns around the numerous roles police have historically been expected to fulfill, calls for defunding police departments, and degree and incidents of racial injustice displayed across the country. Despite the specific work with this population, when looked at with the contributions of others, it does emphasize the growing trend of developing support interventions tailored to differentiated individual professional groups and their stakeholders.

Trends in Literature

Reviewing the current literature in the CIR field reveals a few trends. Although there are not significant new terms, models, or research that have emerged over the last five years, there has been a deepening understanding of the nature of work in this area. ***Bonnano's research*** is the most significant attempt to dive deeper into appreciating the range of how individuals cope with trauma. His work emphasizes that when most practitioners focus on supporting resilience, individual's resilience response abilities have increased over time. This is distinctly different from earlier models where the focus was on prevention of PTSD symptoms.

Another emerging concept is how the notion of ***Disruptive Events*** is refocusing professionals on the notion of business continuity; and that CIR professionals are increasingly aware that their primary task is supporting employees to be able to quickly return to their pre-event work performance. This important linchpin, although arising almost ten years ago, still needs to be emphasized with all CIR professionals.

One of the biggest trends that emerged from this review is the ***focus on specific populations*** and how to design CIR interventions that meet their particular needs. Bacharach (2008) addresses the particular requirements of firefighters. Menard and Arter (2013) focus on the specific needs of police officers. Aucott and Soni (2016) attend to the needs of teachers. And Pallus (2020) and others have turned their attention to health care workers, particularly in light of the stress and strain around their services during this pandemic. Thus, rather than one model which was prevalent in the 1990s and 2000s (a "one size fits all" approach), researchers and practitioners are exploring ways to better meet the individual requirements of specific populations.

As part of this work the usefulness of ***Peer Support Groups*** has gained increased attention particularly with police and health care workers. Brucie (2019) highlights the success of Peer Support groups with police officers. The model is considered less threatening, more acceptable than involvement of family members, or even mental health professionals to normalize tactical and emotional decisions that officers face on a daily basis. The same dynamic seems to be true in the nursing profession. Nurses have to keep their emotions at bay while dealing with life and death issues. Support from colleagues who understand this type of stress seems to have better outcomes (Pallus, 2020). In both professions their vital societal roles may place them at risk for

experiencing significant personal and family difficulties. The field needs to continue to explore more effective ways to help them deal with the stresses of their professions.

Closing Comments

In closing, it seems that while there has not been significant growth or development of terminology, CIR models of intervention, or compelling ground-breaking research in the last five years, substantive progress has been made in the nuances in each of these three areas. Some terms from the past have been added to the CIR literature in an attempt to more carefully communicate various more resilient responses of individuals to trauma. And in terms of models the main model of PFA has remained with a few variations. The most significant addition is the focus on working with specific populations and their needs, especially in cultures that tend to deal with on-going traumas on a daily basis. In regards to innovative research, Bonnano"s work on articulating the nuances of resilience continues to be amazing and helpful to the field.

Dissertations are the main areas where one is seeing interesting research efforts. While relatively few in number, the ones noted focus on the growing interest in developing interventions for specific professional groups. Even though each professional group will have differences by virtue of the region of the country and cultural context of their profession, important themes and lessons are emerging. These lessons will inform individuals, organizations, and CIR professionals on the discontinuities businesses confront. And thus, point to how best to help them recover and resume their productive capacities as soon as reasonably possible.

Bibliography

Bisson, J. I., Brayne, M., Ochberg, F., & Everly, G. S., Jr. (2007). Early psychological intervention following traumatic events. *American Journal of Psychiatry*, 164, 1016-1019.

Bonnano, George. (2019). *Remarkable Resilience*. James McKeen Catell Fellow Award Address. 31st APS Annual Conference. Washington DC.

Brucia, Emily, Codova, Mathew and Ruzek, Joseph. (2019). *Critical Incident Interventions: Crisis Response and Debriefing.* IGI Global. Pp 159-179.

Caldas, M. P., Ostermeier, K., & Cooper, D. (2021). When helping hurts: COVID-19 critical incident involvement and resource depletion in health care workers. *Journal of Applied Psychology,* 106(1), 29-47.

Centers for Disease Control and Prevention (CDC) (2020) United States Coronavirus (COVID-19) Death Toll Surpasses 100,000. (2020, May 28). Retrieved from https://www.cdc.gov/media/releases/2020/s0528-coronavirus-death-toll.html.

Everly, George. (2020). Psychological first aid to support. *Journal of Patient Safety and Risk Management.*Vol. 25(4) 159–162.

Everly, George; McCabe, Lee; Semon, Natalie; Thompson, Carol, and Links, Jonathan. (2014). The Development of a model of Psychological First Aid for non–mental health trained public health personnel: The Johns Hopkins RAPID-PFA . *Journal of Public Health Management Practice*, 2014, 00(00), 1–6.

Everly, G.S., Jr., & Lating, J.M. (2017). *Johns Hopkins guide to psychological first aid*. Baltimore: Johns Hopkins Press.

Funk, S. C. (1992). Hardiness: A review of theory and research. *Health Psychology*, 11(5), 335-345.

Follette, V. F., & Ruzek, J. I. (2006). *Cognitive–behavioral therapies for trauma* (2nd ed.). New York: Guilford. (5 Elements).

Figley, C. (1982). *Traumatization and comfort: Close relationships may be hazardous to your health.* Keynote presentation at the Conference, Families and close relationships: Individuals in social interaction, Texas Tech University, Lubbock, Texas, February.

Gelsema TI, van der Doef M, Maes S, et al. (2006). A longitudinal study of job stress in the nursing profession: causes and consequences. *Journal of Nursing Management* ; 14: 289–299.

Gorter, Jeff. (2021). Adaptive Capacity key EAP strategies for the new year. *Journal of Employee Assistance*. First Quarter. pp. 10 - 13. http://hdl.handle.net/10713/14328

Gorter, J. (2016). CIR summit explores expanded value. *Journal of Employee Assistance*. 46(1), 18-20. http://hdl.handle.net/10713/6534

Hobfoll, Watson, Bell, Bryant, Brymer, Friedman, Mathew ,Friedman, Merle, Gersons, de Jong, Layne, Maguen, Neria, Norwood,. Pynoos, Reissman, Ruzek,. Shalev, Solomon, Steinberg, and Ursano. (2007). Five essential elements of immediate and mid–term mass trauma intervention: Empirical evidence. *Psychiatry.* 70(4) Winter 2007.

Hopper, E. K., Bassuk, E. L., & Olivet, J. (2010). Shelter from the storm: Trauma-informed care in homelessness services settings. The Open Health Services and Policy Journal, 3, 80–100.

Institute of Medicine. *Preparing for the psychological consequences of terrorism: a public health strategy*. Washington, DC: National Academies Press, 2003.

Jacobs, Andrew. (2021). A Parallel pandemic shift hits health care workers: Trauma and exhaustion. *New York Times*. February, 6, 2021

Kannon, L., Quao, N., Streenstra, I. (2020). Critical incident outcome measure. *Journal of Employee Assistance*. Vol 50:(3). pp. 22-25. http://hdl.handle.net/10713/13354

Kobasa, S. C., Maddi, S. R., & Kahn, S. (1982).Hardiness and health: A prospective study. *Journal of Personality and Social Psychology*, 42, 168 – 177.

Kobasa, S. C. (1979b). Stressful life events, personality, and health: An inquiry into hardiness. *Journal of Personality and Social Psychology*, 37, 1–11.

Lennox, R. D., Sharar, D., Herlihy, P. A., & Mollenhauer, M. (2018). Development and validation of a critical incident outcome measure. *International Journal of Health & Productivity*, 10(2): 35-48. http://hdl.handle.net/10713/8964

Lennox, R. D., Sharar, D., Schmitz, E., & Goehner, D. B., (2010) Development and validation of the Chestnut Global Partners Workplace Outcome Suite, *Journal of Workplace Behavioral Health,* 25:2, 107-131. http://hdl.handle.net/10713/12164

Maddi, S. R., & Kobasa S. C. (1984). *The hardy executive: Health under stress*. Homewood, IL: Dow Jones-Irwin.

Mazzetti, Mark. (2021). Muddled intelligence hampers response to Capitol riot. *New York Times.* February, 6, 2021.

NIST, Public Safety Communications Response Division, (2021), https://www.nist.gov/news-events/events/2021/02/pscr-webinar-building-apps-mass-casualty-events-and-triage

Norton, Travis. (2018). *Primary law enforcement mistakes during initial critical incident response and timeline of these events – anatomy of the first 60*. Dissertation: California State University.

Pallus, Jeremy. (2020). The Acute Incident Response Program: A framework guiding multidisciplinary responses to acutely traumatic or stress-inducing incidents in the ED setting. *Journal of Emergency Nursing*. Vol 46 (5). Pp. 579-589.

Power, Nicola and Alison, Laurence. (2019). Decision Inertia in critical incidents. *European Psychologist*. Hogrefe Publishing. 24. Pp 209-218.

Prati, Gabriele and Pietrantoni, Luca. (2010). The relation of perceived and received social support to mental health among first responders: a Meta-analytic Review. *Journal of Community Psychology*. v38. N. 3/ 403-417. 2010SAMSHA. (2014) Tip57 – Trauma informed care in Behavioral Health Service.

Taleb, Nassim Nicholas, (2007), *The Black Swan: The impact of the highly improbable*, https:// www.fooledbyrandomness.com

Tracy, Elizabeth. (2017). *Workplace critical incident response: An Exploratory Study of Critical Incident Responders and Their Perspective of Applied Practice*. Dissertation: Union Institute.

Taylor-Gray, Jennifer. (2018). *Critical Incident Response in law enforcement: Defining current practice.* Dissertation: Capella University.

Turney, Jeffrey. (2014). *Police supervisory attributes that influence attitudes towards critical incident stress management programs*. Dissertation at Capella University.

U.S. Department of Health and Human Services - Substance Abuse and Mental Health Services Administration Center for Substance Abuse Treatment. (2014). Rockville, MD. http://store.samhsa.gov/product/TIP-57-Trauma-Informed-Care-in-Behavioral-Health-Services/SMA14-4816

Wu, Albert, Connors, Cheryl and Everly, George. (2020). COVID-19: Peer support and crisis communication strategies to promote institutional resilience. *Annals of Internal Medicine*. American College of Physicians.