The Business Case for Workplace Critical Incident Response: A Literature Review and Some Employer Examples

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This article reviews the research literature on the business value that can be achieved when employers and organizations offer critical incident response (CIR) services. CIR services are frequently provided as requested by corporations, insurers, and as a specialty service from Employee Assistance Programs (EAPs). There is a significant body of applied research conducted over the past 20 years worldwide that offers considerable empirical evidence to support the clinical effectiveness of CIR and related "psychological first aid" kinds of workplace services. In contrast, there are far fewer research studies available to examine the business case for CIR. A search of the literature obtained a small number of employer case studies conducted in the 1990s and several newer investigations of CIR services that are integrated with other behavioral health and benefit management programs. The research available indicates that CIR services can offer financial savings and business value, primarily from reducing disability and workers' compensation claims and improving the rate and success of employee return to work after a critical event. Six employers' case studies are presented. Although the available evidence is promising, the rare event nature of the conditions that create the need for CIR services and their delivery in applied settings combine to offer significant challenges to conducting scientific investigations of the business impact of these services. More high-quality research is
Critical incidents are sudden, unexpected, often life-threatening time-limited events that can inhibit an individual’s capacity to respond adaptively. The impact of critical incidents may be debilitating and stems from recurrent intrusive images, persistent fear, displaced anger, guilt, and isolation. Extreme critical incident stressors can even result in personal crises, traumatic stress, and posttraumatic stress disorder (PTSD). In addition to their human toll, organizational crises are disruptive to corporate business and workplace operations. Productivity, quality, profitability, and other key performance measures are adversely affected by such events (VandePol & Beyer, 2009). While in the midst of addressing various technological, operational, and logistical issues in the aftermath of a tragedy, it is also advisable to pay special attention to the human needs of affected employees during and after a crisis.

Critical Incident Response (CIR) refers to an integrated comprehensive, multicomponent, crisis intervention approach for addressing the psychological consequences of critical incidents. Over the past 25 years a general model of CIR group debriefing has been developed and that can be used to accelerate recovery from traumatic workplace events (VandePol, Gist, Braverman, & Labardee, 2006). CIR can accomplish psychological closure, prevention, and mitigation of traumatic stress and promote return to normalcy, benefiting the individual, organization, and the community at large.

CIR services are now commonly used in the United States (Burton, Gorter, & Paul, 2009), the United Kingdom (Regel, 2007), South Africa (Maiden & Terblanche, 2006), and in many other countries around the world (Mitchell, 2004). CIR services have been provided in a wide variety of occupational contexts, including police (Carlier, Voerman, & Gersons, 2000), firefighters (Mulligan, 2001), hospital and medical staff (Flannery, 2001), bank personnel (Miller-Burke, Attridge, & Fass, 1999; Gilmore & VandePol, 2009), post office businesses (Tehrani, 1995), retail and convenience stores (Casteel, Peek-Asa, Greenland, Chu, & Kraus 2008; VandePol & Firlan, 2008), natural disasters (Stephenson & Schneider, 2006; Vineburgh, Ursano, Gifford, Benedek, & Fullerton, 2006), and terrorism (Hurst, 2006). CIR services are often included as part of a broad range of services offered to organizations by Employee Assistance Programs (EAPs) (see edited book by Maiden, Paul, & Thompson, 2006). As EAP services are now widely available to more than 90% of large-size companies in the United States and the majority of all employers in the United States and Canada (Csiernik, 2002; Society for Human
Resources Management, 2009), by extension CIR services are also now available, if needed, to millions of workers.

Just what kinds of CIR services are used by organizations with EAPs? An analysis was conducted on data from a national provider of CIR services during 2003 and 2004 (Greenwood, Kubiak, Van der Heide, & Phipps, 2006). It included almost 650 requests for onsite services at more than 100 companies. Crisis Care Network provided the CIR services for ValueOptions, who provides EAP services for many employer organizations. The most common industries that had CIR services in the United States were transportation/communications/electric/gas/sanitary services (37%), manufacturing (36%), services (10%), financial/insurance/real estate (9%), and other (8%). The most common types of incidents that had CIR services were death affecting the workforce (52%), accident or injury (12%), layoff or downsizing (11%), robbery (7%), suicide (6%), and other (12%). Onsite presence of the response experts was typically required within 24 hours of an event. There was great variety in the nature of these events and the responses required, with some situations involving services for individuals alone, for groups of employees, or for both. In 2010, this same provider of CIR services responded to between 10 and 12 bank robberies per day in the United States, which is a higher rate than in the study by Greenwood et al. (2006). The present-day use of CIR services for banks and other financial institutions has as its objective the return to work productivity of affected employees as soon as possible. Banks must reopen for their customers very quickly after a crisis event, and so they typically require a crisis response within 2 hours of service request. Thus, having a prepared CIR protocol is an integral part of the overall business plan for many banks.

CIR services are also now being provided through the use of the Internet and information technology (VandePol & Gilmore, 2008). Some of the reasons for using Websites, e-mail, telephone, and other media to provide services are that it can be more efficient and cost-effective than traditional onsite methods allow. Providing technology-driven options also provides an increased sense of psychological safety for some service recipients. Another advantage to technology is that it may appeal more to younger workers, who are more likely to use technology professionally and personally.

RESEARCH QUESTIONS

The rest of this article reviews the research and business literature to examine the following interrelated questions:

1. What is the general level of effectiveness of CIR services provided in the short term after a crisis event on improving the clinical symptoms and health of individuals?
2. What is the general level of effectiveness of psychological services provided in the long term after a crisis event on improving the clinical symptoms and health of individuals?

3. What is the general level of impact of CIR services and related psychological care on business outcomes such as employee health care costs, worker’s compensation costs, disability claims costs, employee absence, and staff turnover?

**CLINICAL EFFECTIVENESS OF CIR**

For there even to be a discussion about the business case for CIR services, it should first be established that they are clinically effective in most circumstances. Several literature reviews have been completed that have critically examined the dozens of research studies done on the clinical effectiveness and utility of providing CIR services. The conclusion from these reviews is that CIR services, when properly delivered, are helpful in reducing the symptoms of severe stress that affect individuals who have experienced a workplace trauma or other critical incidents (Everly, Flannery, & Eyler, 2002; Everly, Sherman, et al., 2006; Flannery, 2001; Flannery & Everly, 2004; Flannery, Everly, & Eyler, 2000). According to a review by the National Institute of Mental Health (2002): “Early, brief, and focused psychotherapeutic intervention can reduce distress in bereaved spouses, parents, and children” (p. 2).

The general approach underlying the delivery of CIR services is called “psychological first aid” (PFA) for crisis response (Uhernik & Husson, 2009; VandePol, Larbadee, & Gist, 2006). The basic premise of PFA is to support individual and community resiliency, to reduce acute distress following disaster, and encourage short- and long-term adaptive functioning (Ruzek et al., 2007). The PFA approach has been applied to individuals and small groups (Everly & Flynn, 2006; Everly, Phillips, Kane, & Feldman, 2006; Parker, Everly, Barnett, & Links, 2006). There is a clinical practice guide, now in a second edition, for the delivery of psychological first aid that offers standards for this emerging field (Brymer et al., 2006).

As an example, one study examined the impact of brief mental health crisis interventions received at the worksite following the World Trade Center disaster (WTCD) among a random sample of New York adults (Boscarino, Adams, & Figley, 2005). The data for study came from a prospective cohort study of 1,681 adults interviewed by telephone at 1 year and 2 years after this event. The results indicated that worksite crisis interventions offered by employers following the WTCD had a beneficial impact across a spectrum of outcomes, including reduced risks for binge drinking, alcohol dependence, PTSD symptoms, major depression, somatization, anxiety, and global impairment, compared with individuals who did not receive these interventions. In addition, it appeared that two to three brief sessions achieved the maximum benefit for most outcomes examined.
It should be noted that there has been some debate about the effectiveness and even harm from use of related interventions following the critical incident stress management (CISM) model (Bledsoe, 2003). However, the majority of these negative views are based on studies of single-session “debriefings” provided to individuals (which are not CISM or CIR services) or refer to studies that do not follow the industry standards of practice for CISM (Mitchell, 2004; Robinson, 2004). What is not a debate anymore, however, is that the research clearly shows that the use of CISM or other kinds of psychological early interventions cannot successfully prevent the experience of PTSD (Bryant, 2007; Feldner, Monson & Friedman, 2007). However, once someone has developed PTSD or acute stress disorder, there are treatments that do have empirical evidence for their clinical efficacy (see next section).

**CLINICAL EFFECTIVENESS OF PSYCHOLOGICAL TREATMENT**

Some workers who experience a workplace-related trauma may later require additional mental health care if their distress continues longer than 30 days after the incident. High-quality treatment studies in the area of PTSD and acute stress disorders have accumulated over the last 20 years. This research has provided a strong evidence base for directing clinical practice in this area. Led by the evidence summaries and guidelines published by the International Society for Traumatic Stress Studies (Foa, Keane, & Friedman, 2000), clinical practice guidelines for acute stress therapy and PTSD have recently been published in the United States by the Departments of Veterans Affairs and Defense (2004) and the American Psychiatric Association (2004), as well as in Australia (Forbes et al., 2007), Canada (Rose, 2006), the United Kingdom (National Institute for Clinical Excellence [NICE], 2005), and by the World Health Organization (van Ommeren, Saxena, & Saraceno, 2005). Several recent meta-analysis studies of the applied experimental research this area provide further empirical support for the general effectiveness of trauma-focused cognitive-behavioral therapy (CBT) and other acute care psychotherapies in the treatment of PTSD and traumatic events (Bisson & Andrew, 2007; Bisson et al., 2007; Roberts, Kitchiner, Kenardy, & Bisson, 2009; Seidler & Wagner, 2006). This kind of psychotherapy treatment is often provided on multiple occasions over the course of the first 3 months following a traumatic incident. Although the treatment for PTSD is not the same as CIR services (which are delivered much sooner after the critical event), it is important to know that effective treatment is available for individuals with more serious kinds of postcrisis mental health problems.

**CIR IMPACT ON BUSINESS OUTCOMES**

Many employers provide access to CIR services because it is the “right thing to do” and thus may not require a formal business case to justify providing
the services (Claussen, 2009). CIR services are provided primarily for the reason of improving the clinical recovery of the individuals affected by the trauma or crisis experience. In the process of this recovery, however, there can also be other outcomes that can benefit the organization as well. The business value for employers from the proper use of CIR services from EAPs is most likely to be found in the outcomes of reduced worker health care costs, reduced disability claim costs, reduced workers’ compensation claim costs, reduced worker absence days, and reduced worker turnover from increasing the number of employees who can successfully return to work from being on disability after experiencing a traumatic event (Smith & Rooney, 1999). Some businesses provide access to CIR services as a form of risk management and to reduce their legal exposure for workplace-related traumatic incidents (Tehrani, 2002).

These kinds of outcomes are similar to those found in cost-benefit studies of other workplace services. Most employers and researchers now recognize the overall business value or return on investment (ROI) for EAP and workplace mental health services (Attridge, 2007, 2008; Goetz, Ozminkowski, Sederer, & Mark, 2002; Keller, Lehmann, & Milligan, 2009; Kessler & Stang, 2006; Langlieb & Kahn, 2005). For example, a study of occupational physician specialty care found significant cost savings in workers’ compensation cases over a 10-year period when using a psychological approach to treatment (Bernacki & Tsai, 2003). The findings showed that workers’ compensation costs were reduced over a multiyear period by using a small network of clinically skilled health care providers who address an individual workers’ psychological as well as physical needs and use of frequent case-management communication between all parties (e.g., medical care providers, supervisors, and injured employees). The business outcomes were dramatic: frequency of lost-time claims decreased over the 10 years by 73%, the rate of medical claims decreased 61%; the number of days paid per claim decreased 77%, and total workers’ compensation expenses including all medical, indemnity and administrative, decreased 54%.

To achieve these various business outcomes, many EAPs collaborate with occupational health, disability, return to work, and workers’ compensation programs in a prevention fashion and an immediate response role through their CIR programs and the specialty partners who provide them (Attridge, 2005; Disability Management Employer Coalition, 2008; VandePol, Gist, et al., 2006). From these experiences come some evidence from internal industry reports that organizations that reach out to employees at times of workplace disruption do see benefits in how their employees fare over time concerning workers’ compensation, disability, and health care cost outcomes (Jardine & Lieberman, 1993; Smith & Rooney, 1999; Yandrick, 1993). Sometimes workers experiencing a traumatic incident may need a leave of absence for work and file a workers’ compensation claim. Indeed, a survey of 185 employee health benefit plan administrators found that 41% agreed that EAPs
at their company had “reduced workers compensation costs” (International Foundation of Employee Benefit Plans, 2000). Such data suggests that many employers have a positive experience with actual cost savings from CIR.

EMPLOYER CASE EXAMPLES

In addition to the scientific studies noted above, some case examples of business-related outcomes from CIR services also offer evidence of the business impact of CIR services:

Example 1

A study examined company data before and after initiating a CIR program following bank robberies in Australia (Leeman-Conley, 1990). Data from more than 100 employees was used to compare worker absence days and combined medical and worker’s compensation costs for 1 year without the CIR program to the next year with a CIR program. Results showed that worker absence days were reduced by 60% (from 281 sick days experienced in the week after the robbery without CIR to 112 days with CIR; from 668 sick days in the 6 months following the robbery without CIR to 265 days with CIR), and average medical benefits and other workers’ compensation costs were reduced by 66% (down from $18,488 average per person for the period without CIR to $6,326 with CIR). When CIR services were provided after raids at post office businesses, employee sickness and absence levels were reduced by 50% (Tehrani, 1995).

Example 2

A program that offered peer support and access to trained mental health professionals for staff at an Australian prison who experienced traumatic incidents documented CIR program outcomes of a 90% reduction in costs of assisting stressed employees and also lowered sick time utilization, turnover of personnel, and premature retirements (Ott & Henry, 1997).

Example 3

In a study of nurses in Canada (Western Management Consultants, 1996), more than two thirds of the 236 staff reported experiencing at least one critical incident each year (such as in the death of a child, attempted or actual physical assault, break-ins, threats and assaults, or suicide attempt or completed suicide of a patient). Almost all of these nurses reported that the CIR program had helped them to reduce the number of sick days taken on the job (and a review of 3 years of sick time company records confirmed the survey finding). Also, about one in four nurses who experienced a critical
incident had contemplated leaving their jobs but did not quit after the CIR intervention. The estimated return on investment for this CIR program was a $7.09:$1.00 benefit-to-cost ratio.

Example 4
A 3-year longitudinal study was done of CIR services for 18 firefighters who worked in a school at which nine children were killed after a tornado (Mitchell, Schiller, Eyler, & Everly, 1999). The study found that PTSD symptoms were reduced for 44% of the firefighters. In addition, five of the six staff who had left service after the tragedy had later returned to firefighting duties.

Example 5
Another study (Honig & Sultan, 2006) described how a standard group debriefing for police critical incidents was gradually changed toward a new system that featured immediate triage and individual intervention for those identified as most at risk. The initial findings were that no new workers’ compensation claims were filed after adopting the customized CIR intervention.

Example 6
Family Dollar is a chain of more than 6,700 retail stores in the United States. In 2004, the company initiated a CIR support program to improve employee retention and reduce worker’s compensation claims that resulted following traumatic events, such as robberies, assaults, or natural disasters (see Partnership for Workplace Mental Health, 2009). In 2007, they put in place additional services to increase the number of employees returning to work where serious injury had occurred or the employee had not returned to work after the CIR intervention. When team members received professional support within 2 to 24 hours after a traumatic incident, the company retained 86% of their employees, and only 6% of employees filed a worker’s compensation claim. For the retained team members who later filed workers’ compensation claims, the dollar amounts of the claims were 15% less costly than those from prior periods.

METHOD CAVEAT
The preceding case examples all offer evidence for the positive business impact of CIR services. But only two of the six examples (#4 and #5) were published in research journals. Furthermore, none of these reports used high-quality research methods in their study design, such as experimental designs with control groups of people who did not receive CIR services from
the same or similar events or random assignment of people to be in such control groups or CIR treatment groups. Rather, all of the evidence reviewed in this article is best categorized as applied single-group longitudinal research that was conducted in real-world settings and included the use of self-reported outcomes and archival records of outcome measures. Although less than ideal, the use of these kinds of applied research methods is common in the EAP industry (Attridge, 2001) and the field of workplace health promotion in general (Aldana, 2001).

There are many reasons for this lack of methodological rigor (Pompe & Sharar, 2008), but much of it has to do with delivering services in actual worksites and the need to collect metrics and outcome measures in a retrospective, rather than prospective, manner. The staff involved in the delivery of EAP and CIR services typically have backgrounds in clinical or business areas and not in research and thus there are few involved with the scientific know-how to conduct proper outcome studies. The rare event nature of the conditions that create the need for CIR services and their delivery model in community and workplace settings combine to offer significant challenges to conducting experimental scientific investigations of the business impact of these services (Litz, 2008; Sonis, Palmieri, Lauterbach, King, & King, 2008). Despite these practical obstacles, more high quality research is needed before firm conclusions can be drawn about the nature of workplace and claims cost outcomes in this area.

**SUMMARY/CONCLUSION?**

This review of the research literature on the business value examined what can be achieved when employers and organizations offer critical incident response (CIR) services. There is a significant body of applied research conducted over the past 20 years worldwide that offers considerable empirical evidence to support the clinical effectiveness of CIR and related “psychological first aid” kinds of workplace services. Most of this research has focused on the clinical issues of CIR participants and not other areas such as changes in health care costs, insurance claims, and employee work performance and absence. These kinds of outcomes are often of interest to justify the financial expense from employers for sponsoring CIR services. The financial—or business case—evidence for supporting CIR services, however, is not as strong as the evidence for its therapeutic value. Yet there is some support from several studies and from the emerging research on CIR services that are integrated with other behavioral health and benefit management programs, particularly for reducing absence days, disability, and workers’ compensation claims after a critical event. More research on workplace performance and financial outcomes associated with participants in CIR services is needed.
REFERENCES


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