Interventions Following a Critical Incident: Developing a Critical Incident Stress Management Team

This article describes the development and implementation of a stress management model for assisting hospital staff after critical incidents using an adaptation of Mitchell’s model (J. Mitchell, 1983). A survey was conducted following the first major incident using M. Horowitz, N. Wilner, and W. Alvarez’s (1979) Impact of Event Scale 10 days after and again 6 weeks following the incident to measure its emotional impact on staff. Outcomes included being symptom-free of critical incident stress after a 3-month period. The interventions were intended to help staff at a large metropolitan multispecialty hospital in Queensland in the immediate period following critical incidents. The implications of this program indicated the importance of emotional support at critical times for health professionals.

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This article describes a specific model of intervention, developed to assist staff cope with one particular situation in the hospital: the stress experienced by staff following a critical incident. Critical incident stress management (CISM) is a strategic process designed to address critical incidents experienced by individuals in their workplace to help them deal with emotional trauma one incident at a time. Witnessing a traumatic event can cause strong reactions in individuals that last long after the incident occurred, affecting them physically, emotionally, cognitively, and behaviorally (Mitchell & Dyregrov, 1993). Critical incident stress is argued to be more debilitating than physical trauma because it can continue long after physical healing has transpired, causing a continuing loss of emotional control (Oster & Doyle, 2007).

If unaddressed, the stress from multiple incidents can accumulate, causing the potential to develop posttraumatic stress disorder (Everly, Flannery, & Mitchell, 2000; Le Fevre & Kolt, 2006). CISM as a management strategy is currently an underused resource for the emotional management of health care professionals. Workplace stress is a worldwide epidemic, costing the Australian economy $14.81 billion dollars annually (Mathews et al., 2004, Avey, Luthans, & Jensen, 2009), the UK economy 3 billion pounds annually (British Mental Health Foundation Report, 2001), and the U.S. economy $42 billion annually (Kalia, 2002). From the perspective of health care professionals, there is extensive evidence that the stress innate to health care work can cause dysfunctional personal relationships (Gallegos, Bettinardi-Angres, & Talbott, 1990), psychological distress (Jain, Lall, McLaughlin, & Johnson, 1996), decreased attention span (Smith, 1990), decreased job satisfaction (Flanagan & Flanagan, 2002), and increased risk of clinical depression (Tyssen, Vaglum, Gronvold, & Ekeberg, 2001). In the past, the impact on an individual of workload, conflict, and forced change has been largely overlooked by employers (McVicar, 2003). Recent changes in both the public and private health care sectors have seen an increased emphasis on customer service, performance appraisals, and quality improvement. These changes have all resulted in an increase in perceived stress among employees,

Elpern, Covert, and Kleinpell (2005) argue that nurses experience compassion fatigue, a phenomena caused by a reduction in compassion because of an overexposure to the management of trauma victims and end-of-life care, whereas Glasberg, Eriksson, and Norberg (2007) found they also experience a “troubled conscience” because of the above, causing them to leave the profession prematurely.

Greater psychological coping mechanisms for nurses are imperative to help mitigate against them leaving the workplace (Winwood & Lushington, 2006). The work intensification of medical and nursing staff is such that prolonged interventions, perceived or actual threats to their well-being, and injury and death in maternity and pediatric environments all contribute to the health professionals’ routine workday (Spitzer & Burke, 1993), often resulting in professional burnout (Dominguez-Gomez & Rutledge, 2009, Shorter & Stayt, 2009). Unrecognized and or unattended stress in health professionals has the potential to impact their clinical decision making, causing far-reaching consequences for their patients, themselves, and their colleagues, (Spitzer & Burke, 1993, Campfield & Hills, 2001, Becker et al., 2009). This often leaves the least experienced junior nurses on the receiving end of this frustration (Rowe & Sherlock, 2005, Watson et al., 2008), who are ill equipped to manage it.

Contemporary nurse training in itself produces significant stress and fatigue leading to the potential for this group once they enter the profession to exit it prematurely (Rella, Winwood, & Lushington, 2008). Compounding all of the above is the issue of multiple exposures to critical incidents and the cumulative effect they can have, including an inability to identify and therefore deal with a single event that may be causing their stress (Mitchell & Bray 1990, Mitchell & Dyregrov, 1993). Further complicating this dynamic is the variable way individuals define stress (Everly, Flannery, & Eyler, 2002, O’Connor & Jeavons, 2003, Ruysschaert, 2009).

The accumulation of stress has an impact on the individual’s ability to perform within the organization and on relationships within the work environment and at home. Clearly, experiencing prolonged work stress requires emotional support from work colleagues (Marr, 2009). Nurse managers are in a pivotal position to provide support but are often caught themselves in competing demands.

It is therefore paramount that managers themselves be supported so they are better equipped to help others cope with stress (Erikson-Linman & Strandberg, 2009).

THE MITCHELL MODEL

Mitchell (1983) identified the emotional cost of stress on emergency service workers relative to the general population and found that these individuals were more likely to develop clinical depression, experience relationship conflicts, consume more alcohol, attempt suicide, perpetrate acts of domestic violence, and experience professional burnout (Mitchell, 1983, 1988, Mitchell & Bray, 1990). From this research, the Critical Incident Stress Debriefing Model was developed (Mitchell, 1983). Critical incident stress is defined as the emotional stress experienced by individuals secondary to their exposure to a specific incident or number of incidents. The effect of this can manifest through physical, cognitive, emotional, or behavioral changes and may be delayed as employees become adept at suppressing their reactions to continue to perform their role effectively (Mitchell & Dyregrov, 1993, Everly et al., 2000, Hammond & Brooks, 2001, Wee & Myers, 2003).

Critical incident stress was only formally recognized as a medical condition following extensive studies with Vietnam War veterans and in 1980 became classified as a formal psychiatric condition and entered into the American Psychiatric Association’s (APA) Diagnostic and Statistical Manual of Mental Disorders (APA, 2000) as a posttraumatic stress disorder (Wheeble & Richards, 1995). Two windows of opportunity were suggested through which the emotional support of individuals subjected to critical incident stress could be maximized; these are within 24 hours of the incident’s occurrence, called emotional defusing,
and the second within 72 hours of the incident, called formal debriefing (Mitchell, 1983).

The first “window of opportunity” or emotional defusing is only for those staff directly involved in the incident. It is an informal support group facilitated by a mental health professional and designed to provide only emotional first aid to ensure that staff are able to continue with their shift, to ascertain whether there are support systems in place when they finish their shift, and to gauge which personnel, if any, are struggling to cope after the incident. The second “window of opportunity” is the formal debriefing, again facilitated by a mental health professional who would ideally be experienced in group dynamics. This occurs within 72 hours of the incident and is more structured. All staff, either directly or indirectly involved in the incident, are invited to attend. There are seven phases (see Table 1) to a formal debriefing session, and people move through these phases at different rates and often in different sequences (Mitchell & Bray, 1990).

The benefits of debriefing are likely to have a positive effect at an individual and organizational level. Critical incidents often involve a relatively small group of individuals, but often, a much larger group become indirectly involved.

Within this larger group, in the absence of facts, rumors can develop and the debriefing session can be used to provide accurate information that fosters the ability for individuals to “move on.” Furthermore, education about stress reactions is empowering and can reduce the individual’s perception that he or she may be abnormal (Howard & Goelitz, 2004). On an organizational level, the debriefing would help to generate a therapeutic climate where cognitive, affective, and behavioral symptoms can be openly discussed (Dolan & Holt, 2008). The debriefing of people exposed to critical incidents gives them a safe, structured environment to express highly charged cognitive and emotive responses (Irving & Long, 2001).

DIFFERENCES BETWEEN THE MITCHELL AND THE DESCRIBED HOSPITALS MODEL

Although Mitchell (1983) identified two windows of opportunity (emotional defusing within 24 hours and formal debriefing within 72 hours) to capture a maximum amount of staff, the current model occasionally cojoined these two “windows” into a single session. On other occasions, in response to the perceived needs of the staff involved, only defusing sessions (not formal debriefings) were conducted.

A REVIEW OF THE LITERATURE ON THE VALUE OF CISM

Criticism revolves around a concern that existing models of CISM are ineffective (Small, Lumley, Donohue, Potter, & Waldenstrom, 2000) or that the intervention may exacerbate stress symptoms (Wessley, Rose, & Bisson, 1999). Other researchers argue that not everyone wants or needs emotional support.

From this perspective, it is believed that CISM could be ineffective for those individuals who under normal circumstances repress their emotional feelings (Gist & Devilly, 2002; Devilly & Cotton, 2003). Other critics postulate that the process of remembering traumatic events has the potential to result in the reoccurrence of posttraumatic stress disorder (Lewis, 2004). Many of these criticisms were leveled at the seven-phase critical incident stress debriefing model specifically being too ridged, and those criticisms became synonymous with stress management strategies generally (Mitchell, 2004).

### Table 1. The Seven Phases Involved in a Formal CISM
(Mitchell, 1983)

<table>
<thead>
<tr>
<th>Phase</th>
<th>Description</th>
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<tbody>
<tr>
<td>Introductory phase:</td>
<td>Ground rules of process discussed and confidentiality emphasized</td>
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<tr>
<td>Fact phase:</td>
<td>Members invited to describe their role in the incident</td>
</tr>
<tr>
<td>Thought phase:</td>
<td>Members requested to describe the thoughts they experienced during their involvement with the incident</td>
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<tr>
<td>Reaction phase:</td>
<td>Members are gently moved from a cognitive to an emotional level by asking to reveal, “What was the worst part for you?”</td>
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<tr>
<td>Symptom phase:</td>
<td>Members are moved gently back to a more cognitive level by asking them to describe the cognitive, physical, and behavioral symptoms they experienced during the incident, immediately afterward, and any they may still be experiencing</td>
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<tr>
<td>Teaching phase:</td>
<td>Group facilitator describes the signs and symptoms of stress, emphasizing the members’ normality in dealing with an abnormal event. Strategies for dealing with stress levels are also provided here</td>
</tr>
<tr>
<td>Reentry phase:</td>
<td>Conclusion of process and answering any further questions members may have. Telephone contacts are also provided to all participating members in case further emotional support is required</td>
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Converse arguments are that many of these criticisms leveled at CISM models have been based on single-session individual debriefings, which are unsubstantiated, that research on CISM and critical incident stress debriefing within workplaces are positive and are valuable for both individuals and organizations (Robinson, 2004).

Strategies other than debriefing have been used as part of CISM, including psychotherapy and other counseling models (Mitchell, 1983, 2004, Everly & Mitchell, 2000, Pender & Prichard, 2009). One study found that when psychological rewards were offered to employees, such as emotional support, nurses’ commitment to an organization and job satisfaction significantly increased (De Gieter, De Cooman, Pepermans, & Jegers, 2010). No studies were found using CISM strategies specifically for health care workers within a hospital setting, arguably an environment routinely replete with high levels of stress. Compounding this issue are the recent global climatic extremes and the impact on health professionals managing dislocated and traumatized patients (Battles, 2007).

In a time of acute nursing shortages internationally, it is important to develop strategies to motivate, retain, and attract staff.

DEVELOPING THE CISM TEAM

The CISM Core Team (CT) for the project was comprised of senior staff from the Mental Health Unit (three staff), the Nurse Counseling Team (three staff), and the Pastoral Care Team (one staff). To educate the broader hospital population, time was allocated during scheduled clinical nurse consultants (CNMs) meetings to bring awareness of the program to all specialty areas within the hospital.

In these meetings, expressions of interest were sought from all CNMs in the hospital and/or their delegates to be peer support personnel (PSP). The hospital orderly service was also approached for expressions of interest because of their routine involvement in crisis interventions. The CT provided those staff who expressed interest in becoming PSP with education on what constituted critical incident stress and its signs and symptoms.

There was a strong support from both CNMs and orderlies for the program, and approximately 70% of these staff identified themselves as PSP, whereas others choose a delegate. A referral process was developed, and policy and procedures entitled “Accessing the Critical Incident Team,” detailing who to contact over any 24-hour period, was approved by the hospital’s nursing executive. A time frame of approximately 9 months transpired between the initial education process and the CISM team becoming operational. Ongoing education on the signs and symptoms of stress and the CISM team’s referral process were provided in short 20- to 30-minute sessions after scheduled clinical handovers in the afternoon.

REFERRAL SYSTEM

As indicated in Figure 1, the CISM program was initiated whenever an incident occurred within a clinical environment. PSP within that unit would contact a CT member and alert them to the incident and those staff members affected.

The CISM team operated on a 24-hour 7-day a week basis, with CT members on a roster. Referrals would come from a CNM or their delegate or an orderly coordinator. The lengths of response time varied, but staff who were immediately involved were always seen before their shift finished. A date was set for an official launch of the CISM team, but a public suicide within the hospital grounds witnessed by 43 staff occurred before that date which prematurely launched the team into action.

To ascertain the effectiveness of the CISM Team’s response, a formal evaluation of the debriefing process was conducted, which is reported here.

EVALUATION

Following the public suicide incident, 43 staff attended a combined defusing/debriefing session, which took place 7 hours after the incident and lasted approximately 90 minutes. The session was conducted at staff handover time to meet the emotional needs of a large group of staff and minimize organizational disruption. Following the debriefing, CT members saw 12 individual staff members on a diminishing needs basis over a 3-month basis, the counseling sessions lasting approximately 45–60 minutes each. Ten days after the public suicide incident, an Impact of Event Scale (Horowitz, Wilner, & Alvaraz, 1979) was sent by internal mail to all staff who attended the combined defusing/debriefing session to ascertain its value. These staff had a mixture of direct and indirect involvement: clinicians and orderlies who were at the scene placing the patient onto a stretcher, clinicians and orderlies in
the emergency center, and clinicians who witnessed him falling and subsequent landing on the floor.

The Impact of Event Scale (Horowitz et al., 1979) asked staff members to respond to questions related to their intrusive thoughts and avoidant behavior following the incident on a 4-point Likert scale from not at all to often. Six weeks following the incident, the same staff were sent another Impact of Event Scale (Horowitz et al., 1979) by internal mail requesting them to respond to those same questions to ascertain their coping mechanisms. Only 13 staff responded to the first Impact of Event Scale sent out. Six of these stated that the incident sometimes affected them; 7 stated that they were often affected. Eighteen staff returned the postincident scale.

Nine of these said they were sometimes affected by the incident, and four reported being rarely affected. Analysis of the scale was conducted using (Horowitz et al., 1979) interpretations that a score of 8.5 or lower was low, a score of 19 was medium, and anything higher than 19 was considered high.

With a low response rate to both the Impact of Event Scales being sent out, 3 months after the suicide, all 43 individuals who attended the original debriefing were followed up and either contacted by telephones or spoken to at work by CT members. All staff reported no further symptoms of intrusive thought or avoidant behavior associated with that specific incident. This symptom-free response by all participants at the original debriefing session was taken as some measurement of the effectiveness of the CISM team intervention. There was also anecdotal evidence of support following the incident from all levels of staff, which included e-mails, thank you cards, and acknowledgement in senior executive meetings. The limitations of this particular study are the obvious small number of participants and their low response rate to the Impact of Event Scale.

Other types of incidents that the CISM team became involved in included interventions in the intensive care unit after young patients died, interventions in the maternity unit following stillbirths, interventions in the emergency department following traumatic admission issues, and interventions in the mental health unit following suicides. None of these incidents were peculiar to the described hospital’s environment but would be easily recognized by many health care workers as part of their everyday stress.

**DISCUSSION**

Fortunately, critical incidents are not an everyday occurrence. However, the CISM team served as a support system to potentially protect employees from emotional trauma and could be drawn upon as required. Hospital employee and employer reactions to the team were highly favorable: employees because they knew there was support there if and when needed, and employers were seen as benevolent enough to provide that support. Nurses experience regular acute and cumulative stress as an ongoing everyday occurrence. Because this is not likely to diminish, it is important that a resource is available for individuals to express their thoughts and emotions in a safe and supportive environment. The cost of developing and running a CISM team was negligible, but it did require strong commitments in time and energy from personnel in strategic positions. Factors such as reduced sick leave and worker compensation claims and increased staff recruitment, retention, and morale are difficult to attribute to any single organizational change. Future research into critical incident stress among hospital health workers looking at these variables may provide more positive evidence for the inclusion of stress management programs for hospital staff.

**CONCLUSION**

Although Mitchell (1983) has made a significant contribution to CISM, an adapted version proved useful in this case, where defusing sessions and formal debriefing sessions sometimes became conjoined to meet the maximum amount of staff involvement.
emotional needs. This suggests the need to tailor models of CISM to institutional circumstances.

Given the paucity of research on critical incident stress in the nursing profession, it is imperative to extend this important area of investigation.

Outcome studies on post incident debriefings within the hospital context are also required to explore issues that may impact on the success of debriefing. These issues include individual coping mechanisms, type of stressors operating before the incident, and actual and perceived social support systems.

ACKNOWLEDGMENT

Appreciation is extended to Professor Anne McMurray for her kind support and direction in the editing of this article.

REFERENCES


Lewis, G. (2004). Thoughts on psychological debriefings: A noted authority on psychological debriefings cautions against “throwing the debriefing baby out with the


