A review of the literature on Critical Incident Stress Debriefing (CISD) as part of best practice recommendations for Critical Incident Stress Management (CISM)

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New Zealand Occupational Safety and Health legislation (Health and Safety in Employment Act, 2002) mandates employers take all practicable steps to identify, assess, control and monitor employee (including volunteers) exposure to hazards so as to eliminate, isolate and minimise such hazards which have the potential to cause harm to employee health (Occupational Safety & Health Service of the Department of Labour, 2003).

There is robust evidence in the scientific literature that cumulative exposure to trauma - such as those events routinely experienced by emergency services personnel in the course of their daily occupational tasks (e.g. accident, crime or natural disaster) - is a risk factor for the development of various psychopathology including: anxiety and mood disorders, substance abuse disorders, acute stress disorder, posttraumatic stress disorder not to mention deleteriously impacting on other general aspects of physical and psychological health such as heightened risk of divorce and even suicide, relative to the general population (e.g. McNally, Bryant & Ehlers, 2003; Ozer, Best, Lipsey & Weiss, 2003; Roberts & Everly, 2006; Robinson, 1993, 1997, 2002).

Further, for example, the *Diagnostic and Statistical Manual of Mental Disorders (DSM–IV;* 4th ed., American Psychiatric Association, 1994) specifies lifetime prevalence for PTSD for at risk populations (such as emergency services workers) ranging from 3% to 58% compared with 1% to 14% in the general population. Indeed

Breslau, Davis and Andeski (1997) found an overall risk of 23.6% of developing PTSD after a traumatic event and a risk of 13% for men and 30.2% for women.

Finally, the 2007 Australian Centre for Posttraumatic Mental Health (ACPMH) Guidelines for the Treatment of Adults With Acute Stress Disorder and Posttraumatic Stress Disorder concluded that "the available evidence suggests that prolonged exposure or repeated intense exposures [to trauma] over a period of time leads to an accumulated risk" (p. 142).

Consequently it is reasonable that any employer of personnel occupationally exposed to trauma (especially repeated exposure) have management plans (commonly referred to as Critical Incident Stress Management; CISM) in respect of this hazard, even if exposure is only vicarious (Devilly & Varker, 2008; Halpern, 2009).

Current best practice in respect of CISM: CISM is perhaps best defined as a multi-component programme that spans the complete crisis continuum from the pre-crisis and acute crisis phases through to the post-crisis phase (Everly, Flannery & Mitchell, 2000). CISM plans are considered to be robust when they encompass the following components (e.g. Devilly & Cotton, 2003; Everly, Flannery & Eyler, 2002):

1. Regular comprehensive occupational health surveys of personnel,

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2. A programme of pre-crisis work such as stress management and stress inoculation as well as initiatives aimed at improving chronic workplace stressors and elements of "pre-exposure" to traumatic events (resiliency and preparedness training),

3. Nationally standardised peer support networks and peer support coordinators, including mechanisms and protocols for their recruitment, training and competency assessment,

4. Small group crisis interventions (defusing),

5. Large group crisis interventions (demobilisations, crisis management briefings, town meetings),

6. Mechanisms for the longitudinal screening and follow-up of affected personnel so as to identify at risk individuals,

7. Mechanisms for the evaluation of all CISM initiatives,

8. Access to early but stepped stratified continuum of care (based on need, severity and perceived threat to life) through suitably-experienced, qualified and highly trained EAP providers (with expertise in trauma focused cognitive behavioural therapy) for those who report enduring distress,

9. Regular updating to be consistent with developments in the scientific research literature and

10. Mechanisms for ensuring appropriate organisational feedback.

The most well known component of traditional CISM is Critical Incident Stress Debriefing (CISD; although this is sometimes confused with the overarching CISM). CISD is universally known as a structured group intervention usually provided within 72 hours of exposure and lasting between two and three hours depending on factors like group size and the complexity of the event. CISD is a seven stage process that involves the following sequential phases: 1. Introduction: Where ground rules are established, 2. Facts: Where participants are asked to describe what happened from their own perspective, 3. Thoughts: Where participants are asked to describe their first thoughts, 4. Emotion: Where participants discuss their emotional reactions, 5. Assessment: Where physical and psychological symptoms are noted and discussed, 6. Teaching or Education: Where typical stress reactions and responses as well as coping strategies are discussed, and 7. Re-entry: Where participants' questions are answered and a summary is provided as well as details of additional supports available being given out.

Despite the frequent finding (e.g. Robinson & Mitchell, 1993) that participants generally report satisfaction with CISD, this is not in itself evidence of the efficacy of the intervention. Alarmingly in fact, there is evidence that those who are offered CISD yet decline to be involved are the most likely to be unaffected by the event long-term (Matthews, 1998), and those that are most distressed by the event are the very same people who are likely to be most adversely affected by CISD (Mayou, Ehlers & Hobbs, 2000). Therefore, the widespread practice of CISD seems to be based on popularity and consumers' reported satisfaction. This is not the best basis upon which to make decisions about its suitability for inclusion in evidence-based CISM plans, especially given the lack of scientific evidence (e.g. Everly, Boyle & Lating, 1999) to support its effectiveness (Slawinski, 2005).

Further to this, the problem with much of the research on CISD is the heterogeneity of the intervention being evaluated. That is, there has yet to be a well designed and implemented randomised controlled clinical trial (RCT) of group debriefing. Indeed, much of the literature in support of CISD pertains to one-on-one situations despite the

fact that the typical mode of CISD delivery is group-based. Therefore, at best, review studies indicate that the effectiveness of CISD is only achieved (if at all) when administered in a standard manner with trained interventionists (Mitchell, 2004; Robinson, 2004, 2007). However, there is nothing in CISD/M literature that would indicate evidence based CISD/M interventions are being taught, much less empirically monitored or evaluated. Finally, particularly in occupations where eye witness testimony may be of importance (e.g. the emergency services), the use of group debriefing is of concern when delivered before testimony has been obtained. Halpern (2009) has provided evidence that CISD can taint recall when misinformation is introduced by a confederate in a group debriefing.

Accordingly, the decline in the routine use of CISD has resulted not only from unflattering research findings (e.g. evidence that the provision of CISD would appear to inhibit or even reverse the normal inclination toward resilience and resolution; Seely, 2007) but also from criticism of mandatory participation requirements, the one size fits all approach, group work support being discounted because the facilitator was seen as the expert, graphic recapitulation of events, and the pathologising of reactions (Bryant et al., 1998, 1999). In contrast, the provision of non-CISD interventions may at least to some degree enhance normal patterns of recovery (van Emmerik, Kamphuis, Hulsbosch & Emmelkamp, 2002; Devilly & Cotton, 2004)

Thus there is a growing body of compelling evidence to suggest that traditional CISM plans that include "Mitchell model" type CISD in particular, are not supported. Indeed much evidence has now resulted in recommendations to cease *compulsory* "debriefing" of this specific type (ACPMH, 2007; NCCMH NICE, 2005; Rose, Bisson, & Wessely, 2001; see also Seery, Silver, Holman, Ence & Chu, 2008; Devilly, Gist &

Cotton, 2006; van Emmerik et al., 2002; Arendt & Elklit, 2001; McNally et al., 2003; Litz, 2008; Halpern, Gurevich, Schwartz & Brazeau, 2009). In fact, Devilly and Cotton (2004) go as far as to say that based on currently available scientific evidence there may come a time when an employer may even be litigated against for compelling CISD participation as opposed to omitting to provide it.

In summary then, whereas in the past the hazard of psychopathology developing from exposure to trauma was considered likely and even foreseeable (and therefore routine early intervention for all would seem efficacious), there is now a substantial body of evidence suggesting that exposure alone is insufficient (although still possible; Devilly & Varker, 2008) to stimulate PTSD (and other psychopathology) in a substantial majority of cases. Further, there is evidence that many early symptom manifestations spontaneously resolve without orchestrated intervention (e.g. Kilic, 2001; McNally et al., 2003).

Nevertheless, the same three concerns that underpinned the development of the original CISD/M concept by Mitchell (and indeed employer obligations under NZ OSH legislation) are still very relevant as a basis for developing protocols to address exposure to trauma, especially for "at risk" groups such as emergency services personnel. These concerns are:

1. <u>Social concerns</u>: Wanting to help employees (especially emergency services personnel) who are a high risk group for developing various psychopathologies as a function of their daily occupational duties,

2. <u>Legal concerns</u>: Employers not wanting to be found negligent by failing to provide their personnel with the supports and tools necessary for the protection of their psychological health in respect of the identifiable hazard

of exposure to traumatic events and

3. Organisational concerns: That productivity gains are achieved from a healthy workforce and that the provision of services to address exposure to trauma contributes to this objective.

Ideally, an empirically validated easily implemented method would exist for routinely screening individuals exposed to trauma so as to identify those who are at risk of being unable to resolve any psychological distress on their own. Further, this method would then be reliable in its allocation of those who need and seek assistance into effective treatment options. Given that this is not currently available we should therefore, at the very least, disseminate accurate information about current international consensus on best-practice guidelines in respect of effective services for individuals exposed to trauma (Devilly & Cotton, 2004; Litz, 2008).

With the decline in popularity of CISD there has been a rush of new models to fill the void. Yet most have so far not been subjected to RCTs and therefore not validated empirically. Accordingly, scientific opinion cannot yet be definitive in providing a specific prescription in regard to best practice in this domain. There is, nevertheless, a growing body of compelling evidence supporting the current general recommendation that contemporaneous and instrumental (Gist & Devilly, 2002), practical and immediate support (Campfield & Hills, 2001) should continue to be provided (or at the very least offered) to "at risk" groups and those that are distressed (Devilly & Cotton, 2004; NATO, 2002; Devilly, Gist & Cotton, 2006; van Emmerik et al., 2002).

Further, there is general consensus that in the immediate (0 – 48 hours) interval post trauma exposure, services should be flexible, accepting and respectful of the varied human response to trauma (Litz, 2008) and for the recommendation of a strengths-

based approach which focuses on helping individuals to re-establish a sense of professional competency as well as a sense of mastery in managing their reactions after a traumatic event. Further, such support should be peer led (Flannery, 1998; Jeanette & Scoboria, 2008) and focus on resiliency. Any intervention should look to enhance the natural recovery process, acknowledging each individual's response is unique, providing individuals with the control to take an active role in their own recovery by accessing the necessary social supports and (if needed) additional professional input at the individual's choosing so as to enhance their sense of competency in managing their own recovery (Jeanette & Scoboria, 2008).

In summary, current CISM plans should promote adaptive functioning and even psychological growth (Macy et al., 2004; Chan, Chan & Ng, 2006; Jeannette & Scoboria, 2008). They should facilitate access to a stepped stratified continuum of care dependent on need and as a function of severity and perceived threat to life (Bisson & Cohen, 2006; Halpern et al., 2009; ACPMH, 2007; NCCMH NICE, 2005; Rose et al., 2001; Jeanette & Scoboria, 2008).

One such endorsed approach is the concept of Psychological First Aid (PFA; ACPMH, 2007; NCCMH NICE, 2005; Rose et al., 2001; Forbes et al., 2007; Yule, 2006). PFA is a "flexible conversational approach" (Litz, 2008, p. 504) conducted around eight core actions: Contact and Engagement, Safety and Comfort, Stabilisation, Information Gathering, Practical Assistance, Connection with Social Supports, Information on Coping Support and Linkage with Collaborative Services (Ruzek et al., 2007). PFA aims to achieve individual psychological stabilisation by mobilising people's internal strengths (Macy et al., 2004) and promoting a sense of safety, calm, self- and community efficacy, connectedness and hope.

PFA is an early approach to trauma exposure now endorsed by many of the

current international best-practise guidelines including those of the Australian Centre for Posttraumatic Mental Health and the Australian National Health and Medical Research Council (ANHMRC; ACPMH, 2007; Forbes et al., 2007; NCCML NICE, 2005; Yule, 2006) and used for example by the Red Cross (Flannery et al., 2006; Johnstone, 2007). As stated above, the absence of robust RCT examination of the emerging models of PFA in current scientific literature means opinion cannot yet be definitive about their efficacy. Accordingly the M.A.N.E.R.S.® model of PFA developed by the Victorian Ambulance Counselling Unit (VACU; New South Wales, Australia) will be considered for illustrative purposes and with this in mind.

The M.A.N.E.R.S.® Model of Psychological First Aid

According to the Victorian Ambulance Counselling Unit (VACU; 2007) literature, M.A.N.E.R.S.® is a model of Psychological First Aid which can be applied not only with emergency services personnel but also members of the public after critical incidents or other distressing situations. M.A.N.E.R.S.® is of course an acronym (designed specifically as such so as to be memorable; D. Cooper, personal communication, 2010). Each of the letters in the acronym stands for one of six independent components which encompass the eight core actions of Psychological First Aid (listed above). These components are: Minimise exposure, Acknowledge the event, Normalise the experience, Educate as required, Restore or Refer, and Self-Care. Each component can be applied separately. Indeed, it is actually mandated in VACU literature that the model is not to be used prescriptively but that the six components are merely a guide to providing immediate support. Each of the six components should be applied only when appropriate and only if relevant to meet the needs of any given individual (VACU, 2007).

Minimise exposure: "To reduce stress or anxiety levels so as to allow the recovery process to commence" (VACU, 2007, p. 1).

As discussed earlier, although no longer considered "likely" or "inevitable", there is nonetheless robust scientific evidence that cumulative exposure to trauma is a risk factor (e.g. McNally et al., 2003; Ozer et al., 2003). Indeed the ACPMH (2007) concludes that "the available evidence suggests that prolonged exposure or repeated intense exposures [to trauma] over a period leads to an accumulated risk" (p. 142). This component of M.A.N.E.R.S.® also encompasses contact and engagement and encourages recommended aspects of PFA such as the provision of comfort and safety, which in turn helps to ensure stabilisation and that the basic needs of individuals are being met. These objectives are all in line with ACPMH (2007) guidelines.

Acknowledge the event: As "more significant than normal and to connect with the person to allow for early recognition of any problematic issues or reactions" (VACU, 2007, p. 1).

There is robust evidence that receiving supervisor support is vitally important as an acknowledgement of the significance of an event to personnel (e.g. Leonard & Alison, 1999; Halpern et al., 2009; ACPMH, 2007; NCCMH NICE, 2005; Rose et al., 2001) and conversely, that the failure to at least offer support or acknowledge the event was psychologically problematic (Leonard & Alison, 1999; Jeanette & Scoboria, 2008).

Consequently, acknowledging the significance of an event is critical (see also Brewin, Andrews & Valentine, 2000; Seely, 2004). Such acknowledgement should endeavour to: value the work done by personnel in a non critical, non judgemental way; restore a sense of professional competence and identity; convey concern about the wellbeing of the personnel; and convey a willingness to listen and offer

material help if needed (Halpern et al., 2009).

In addition, provision for a brief time-out period (30-60 min.) in which the affected personnel are taken out of service (and usually spent with peers) is important both as an acknowledgement and to allow early assessment of the level of distress and detection of needs (Halpern et al., 2009).

Normalise reactions: To indicate that "their reactions to the event, albeit distressing or problematic are normal given the circumstances and that it is the event that is abnormal, and encourage them to seek assistance" if required (VACU, 2007, p. 1).

This component is a development from the traditional "Mitchell Model" which emphasised education about "typical" symptoms and there has been considerable concern about the pathologising of reactions that this potentially incurs. Instead, this component of the M.A.N.E.R.S.® model encourages normalisation (where appropriate) of specific reactions actually identified by an affected person and this is consistent with current scientific literature (e.g. Devilly & Cotton, 2004).

Further, one of the key emotions in the potential development of posttraumatic pathology is the sense of helplessness (Halpern et al., 2009). An inability to help is psychologically disabling (especially for those in the "helping professions"). For example, Bryant and Harvey (1996) reported fire fighters feelings of being psychologically threatened by their inability to manage the victims' trauma, either physical or emotional. Therefore, given that M.A.N.E.R.S.® can be applied by supervisors to personnel, or peer to peer, or even emergency services personnel to a member of the public, this potentially lessens any perceived helplessness. That is, an individual familiar with M.A.N.E.R.S.® is at least able to confidently apply a legitimate model for managing event related "witness"

distress much in the same way emergency services personnel have protocols for dealing with any other aspect of their occupational tasks.

Educate as required: "To improve the person's immediate and short term coping" by encouraging consideration of adaptive coping strategies (VACU, 2007, p. 2).

As indicated above, any intervention should look to enhance the natural recovery process so as to enhance the individual's sense of competency in managing their own recovery (Jeanette & Scoboria, 2008). Individual symptoms specifically disclosed by affected persons can be discussed and addressed with evidence-based educational material.

Both the ACPMH (2007) and Halpern et al. (2009) provide evidence of how an intense pattern of distress may emerge in response to a recent traumatic event. This emerging psychopathology may be as a result of the most recent incident having some particular similarity to prior exposure (or other contextual poignancy that results in overwhelming compassion or identification with the injured person). This then plays an important role in the disruption of an individual's typical coping and resiliency. That is, the extent to which any specific event is personalised through identification with the victim plays an important role in modifying resilience and vulnerability of any affected person (ACPMH, 2007). Consequently, it is therefore helpful to educate affected personnel about the possibility of this as well as the frequent and common experience of anticipatory anxiety and stress responses for news staff and the potential cumulative effects of repeated or prolonged exposure to trauma given that many affected personnel describe "surprise" and therefore a level of distress when they do experience psychological disturbance as the current event is not necessarily the most "traumatic" event that they have been exposed to in the course of their emergency services career.

Finally, it is helpful to provide an individual exposed to trauma with clear accurate information about what happened etc. so as to aid with contextual integration of the memory (Brewin et al., 2000) and thereby fulfil another key component of PFA.

Restore or Refer: "To re-establish the person's pre-incident psychological state or ensure that they are receiving professional assistance" if required (VACU, 2007, p. 2).

Re-engagement (where appropriate) is endorsed by the ACPMH (2007) Guidelines; also the resumption of normal family life, routines and work roles as functioning permits. In considering restoring however, there is also the issue of managing further stressors in the workplace from a resumption of normal occupational duties and so level of distress must be considered in such decision making (Bisson, 2008).

The ACPMH (2007) endorse the development of an organisational strategy for "Review" of symptoms over the subsequent weeks, as symptoms may have a delayed onset. Further, there is compelling evidence that amongst emergency services personnel, conditions like Acute Stress Disorder (ASD) and PTSD may first present in a range of indirect ways including: alcohol or substance abuse, prolonged numbing or interpersonal insensitivity, anger, relationship problems, poor sleep and physical health complaints (e.g. fatigue, gastrointestinal problems or headaches). Finally, issues of underreporting are common amongst emergency services personnel (e.g. given stigma and concern about work appraisal etc.). Therefore, it is reasonable to suggest that lower thresholds should be used in determining referral for full clinical assessment by a trained and experienced clinician (ACPMH, 2007).

Consequently, the ACPMH (2007) Guidelines recommend longitudinal follow-up (at least of a representative sample to reduce stigmatisation; see also Arendt & Elklit, 2001) given that symptom

manifestation might well have a delayed onset. A second recommendation is therefore that if symptom distress continues beyond two weeks (or earlier if requested) referral to appropriate professionals for intervention is recommended (ACPMH, 2007).

If, in the first months post event, symptoms of ASD appear, individual Trauma Focussed CBT (TFCBT) should be made available; but usually no earlier than two weeks after the traumatic event. With confirmed PTSD, TFCBT should be offered (via mechanisms like EAP) that confronts (encourages exposure to) the memories, avoidance behaviours and biased or distorted beliefs and thoughts in a controlled and safe environment (also Bisson, 2008; Forbes et al., 2007; Roberts, Kitchener, Kenardy & Bisson, 2009) by highly trained interventionists (Stapleton, Lating, Kirkhart & Everly, 2006). In addition to its demonstrated efficacy, TFCBT has been shown to have great face validity, for example being chosen as a preferred treatment modality by law enforcement professionals (Becker et al., 2009)

Drug treatments should not routinely be used within four weeks of symptoms appearing and subsequently, if necessary, ideally only then as an adjunct to psychological therapies (ACPMH, 2007; Forbes et al., 2007). Although the psychobiology of PTSD is complex and there are no absolute predictors of response to pharmacotherapy, the antidepressants - particularly those with serotonergic properties - are helpful for the core properties of PTSD and so this class should be considered first and ideally in conjunction with psychological intervention (ACPMH, 2007; Forbes et al., 2007; Hagerman, Anderson & Jorgensen, 2001).

Finally, there is the need for clinicians working with emergency services personnel to have significant experience with this population given the specific culture of these organisations and that understanding

of these nuances can be central to the development of a positive therapeutic relationship that is important in treating the ASD and PTSD sufferer (e.g. ACPMH, 2007; Roberts & Everly, 2006).

Self Care: "To minimise the risk of you, as the person providing support, from developing vicarious trauma" (VACU, 2007, p. 2).

Halpern et al. (2009) provide evidence that merely watching a video of a scene typically attended by emergency services personnel (even though "mild" in detail and sensory experience) can contribute to the development of posttraumatic pathology.

There is also evidence that ongoing education on general stress management, lifestyle balance and improving chronic workplace stressors is useful for long-term psychological wellbeing (Halpern et al., 2009; Robinson, 1993). Finally, self-care is enhanced through the regular utilisation of professional supervision so as to undertake individualised planning for maintaining psychological well-being and preparing to manage any stress response that does occur.

Conclusions:

1. There is robust evidence in the scientific literature that cumulative exposure to trauma - such as those events routinely experienced by emergency services personnel in the course of their daily occupational tasks (e.g. accident, crime or natural disaster) - is a risk factor for the development of various psychopathology.

2. There is a growing body of compelling evidence to suggest that traditional CISM plans that include "Mitchell model" type CISD in particular, are not supported. Indeed much evidence has now resulted in recommendations to cease *compulsory* "debriefing" of this nature.

3. Psychological First Aid is an early approach to trauma exposure now endorsed by many of the current international best-practice guidelines. However, the absence of robust RCT examination in current scientific literature of the various models of PFA which are emerging means that empirically validated opinion is not yet possible about their respective efficacy.

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