SUDDEN DEATH: THE IMPACT OF THE IMMEDIATE AFTERMATH ON POLICE OFFICERS, VICTIM SUPPORT WORKERS, AND BEREAVED SURVIVORS.

A thesis presented in partial fulfilment of the requirements for the degree of Doctor of Philosophy in Psychology at Massey University, Wellington, New Zealand

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ABSTRACT

The immediate aftermath of a sudden death is known to be distressing for bereaved survivors and the first responders who assist them. However, its impact on posttraumatic stress disorder (PTSD) and complicated grief (CG) in survivors and secondary traumatic stress (STS) in first responders is largely unknown. This study investigated factors contributing to, and resulting from, peri-event distress on suddenly bereaved family members and friends of the deceased (n = 125) and first responders (police officers, n = 165 and Victim Support volunteer workers, n = 148). Perceived lack of first responder support and violent death independently predicted peritraumatic distress in the bereaved sample. In turn, peritraumatic distress was the biggest predictor of both PTSD and CG symptoms. Among first responders, violent death, distress at survivor reactions, and identification with the survivor predicted peritraumatic distress. Distress at survivor reactions predicted less helpful survivor support and, equal with peritraumatic distress, was the strongest STS predictor. Findings suggest that first responders' ability to support survivors and their chances of developing STS symptoms are mostly influenced by how distressing they find survivors' immediate grief and trauma reactions. The degree to which they support survivors directly affects survivors' peritraumatic distress, which affects PTSD and CG symptoms more than other pre, peri, and post-event variables in this study. Using an information processing model, the findings further the theoretical understanding of how sudden bereavement leads to PTSD, CG, and STS. It is argued that peritraumatic distress not only disrupts the processing of trauma information, resulting in PTSD, but also of grief information, leading to CG, and *secondary* trauma information, resulting in STS. Practical and clinical recommendations are made that may help first responders minimise psychological distress for both survivors and themselves following a sudden death, and help therapists identify survivors at risk of PTSD and CG.

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CHAPTER 1:

OVERVIEW OF THESIS

There are always two parties to a death; the person who dies and the survivors who are bereaved. The sting of death is less sharp for the person who dies than it is for the bereaved survivor.

Toynbee (1968, p.271)

Statement of the problem

Sudden death is ubiquitous. For every person who dies, it has been estimated that an average of five close relatives or friends are bereaved (Cleiren, 1991). Consequently, about 30,000 New Zealanders are bereaved each year by sudden deaths including homicide, suicide, accident, sudden infant death syndrome, heart attack, medical conditions, and natural causes (Ministry of Health, 2006; New Zealand Police, 2005). Both New Zealand and United States research shows that a loved one's sudden, unexpected death is the most frequently experienced traumatic event in the general population (Breslau & Kessler, 2001; Breslau, et al., 1998; Flett, Kazantzis, Long, MacDonald, & Millar, 2004).

The death of a close family member has long been considered one of life's most stressful events (T. H. Holmes & Rahe, 1967), and a risk for psychological conditions such as posttraumatic stress disorder (PTSD) and complicated grief (CG) when it is sudden and unexpected rather than anticipated (e.g., Barry, Kasl, & Prigerson, 2002; Kaltman & Bonanno, 2003; Lindemann, 1944). PTSD is an anxiety disorder in which individuals exposed to a traumatic event develop unwanted intrusive thoughts and images of the event, avoidance of reminders of the event, and persistent hyperarousal (American Psychiatric Association, 1994) (see Table 2.1, p 9). CG is debilitating, persistent grief that prevents the bereaved survivor from accepting the loss and returning to normal functioning (Prigerson, Frank, et al., 1995; Prigerson, Maciejewski, et al., 1995) (see Table 2.3, p. 13).

Research points to what happens in the peri-event period – around the time of the traumatic event – as being critical to sudden death survivors' grief and trauma (Birmes,

et al., 2005; Brewin, Andrews, & Rose, 2000; Ozer, Best, Lipsey, & Weiss, 2003) but little is known about the impact of specific peri-event variables. For example, peritraumatic distress - the distress experienced during and immediately after a traumatic event unfolds (Brunet, et al., 2001) – is known to predict PTSD (e.g., Birmes, et al., 2005; Brewin, Andrews, & Rose, 2000; Marmar, et al., 2006) but has yet to be studied in relation to either sudden death or CG. This study will examine two factors identified in the sudden death literature that may be key to understanding the risk of peritraumatic distress in this population: whether the death was violent (from accident, suicide, or homicide) and the degree to which survivors felt supported by first responders.

"First responders", including medical and emergency services personnel, victim and crisis workers, funeral directors, and chaplains, often work with survivors in the immediate aftermath of a sudden death. The problem central to this thesis is that their work with survivors during the peri-event period may also cause *them* distress (Brown, Fielding, & Grover, 1999; Ender & Hermsmen, 1996; Eth, Baron, & Pynoos, 1987; Henry, 2004; Karlsson & Christianson, 2003; Stewart, Lord, & Mercer, 2000; Sugimoto & Oltjenbruns, 2001; Wright, 1991), posing risks for both the survivors and themselves. Three sources of distress described in the literature on sudden death work will be investigated: witnessing survivors' reactions (e.g., Regehr, Goldberg, & Hughes, 2002; Wright, 1991), identification with the survivor (e.g., Henry, 2004; Regehr, et al., 2002), and peritraumatic distress (e.g., Bartone, Ursano, Wright, & Ingraham, 1989; Eth & Pynoos, 1985; Hodgkinson & Shepherd, 1994). First responders' distress may compromise their ability to meet survivors' needs (Dakof & Taylor, 1990; Dunkel-Schetter & Wortman, 1982; D. R. Lehman, Ellard, & Wortman, 1986; Rosenblattt, et al., 1991; K. E. Thompson & Range, 1992), potentially resulting in their support attempts being perceived as unhelpful (Davidowitz & Myick, 1984; D. R. Lehman, et al., 1986; Spooren, Henderick, & Jannes, 2000; K. E. Thompson & Range, 1992), and even increasing their own risk of developing PTSD (e.g., Ursano, Fullerton, Vance, & Kao, 1999) and secondary traumatic stress (STS) (e.g., Figley, 1995a). STS is the name given to PTSD symptoms resulting from indirect exposure to trauma, such as the witnessing of distress in survivors (Figley, 1995a). It has serious implications for the wellbeing and retention of trauma workers, and the effectiveness of services provided by trauma support organisations (Collins & Long, 2003; Sabin-Farrell & Turpin, 2003).

In sum, the immediate aftermath of a sudden death may be a critical period for both survivors *and* first responders. The challenge for first responders is to meet the needs of survivors, while at the same time protecting themselves from adverse outcomes. There is a vast gap in research addressing this challenge because there is little understanding of the peri-event factors, especially peritraumatic distress, that may increase the risk of PTSD and CG following sudden bereavement. Thus, first responders continue to work with survivors during the critical peritraumatic period with few empirically-based guidelines and little knowledge of the impact of their work on both themselves and those they help.

Study overview and objectives

This study will investigate the impact of the events immediately after a sudden death on 1) distress for the deceased's close surviving family and friends, and 2) distress for two groups of first responders: New Zealand police officers and Victim Support (VS) volunteer workers. Police attend the scene of all reported sudden deaths in New Zealand and refer most survivors to VS, an international crisis support group whose volunteers help victims of crime and crisis. Hence, the police and VS are perhaps the two most likely first response agencies to attend any given sudden death case. New Zealand has approximately 1650 VS volunteers who fill a roster to provide 24-hour emotional support, personal advocacy, and information to victims of crime and trauma in their region.

There are two key research questions: first, does the support survivors receive from first responders affect their peritraumatic distress, and/or symptoms of PTSD or CG?; and second, does first responders' distress while working with survivors (distress at survivor reactions, peritraumatic distress, identification with the survivors) influence the support they offer survivors and their own secondary traumatic distress? Answers to these questions may guide recommendations that help first responders utilise the peri-event phase to minimise psychological distress for both survivors and themselves following a sudden death. A secondary objective is to develop a theoretical understanding of 1) how sudden bereavement leads to traumatic stress and complicated grief; and 2) the factors that contribute to and result from peritraumatic distress among both trauma victims and trauma workers.

Organisation of thesis

This thesis consists of two separate studies - 1) the impact of on survivors and 2) the impact on first responders - with an overarching introduction and conclusion. It is divided into, and designed to be read in, four parts (see Figure 1.1).

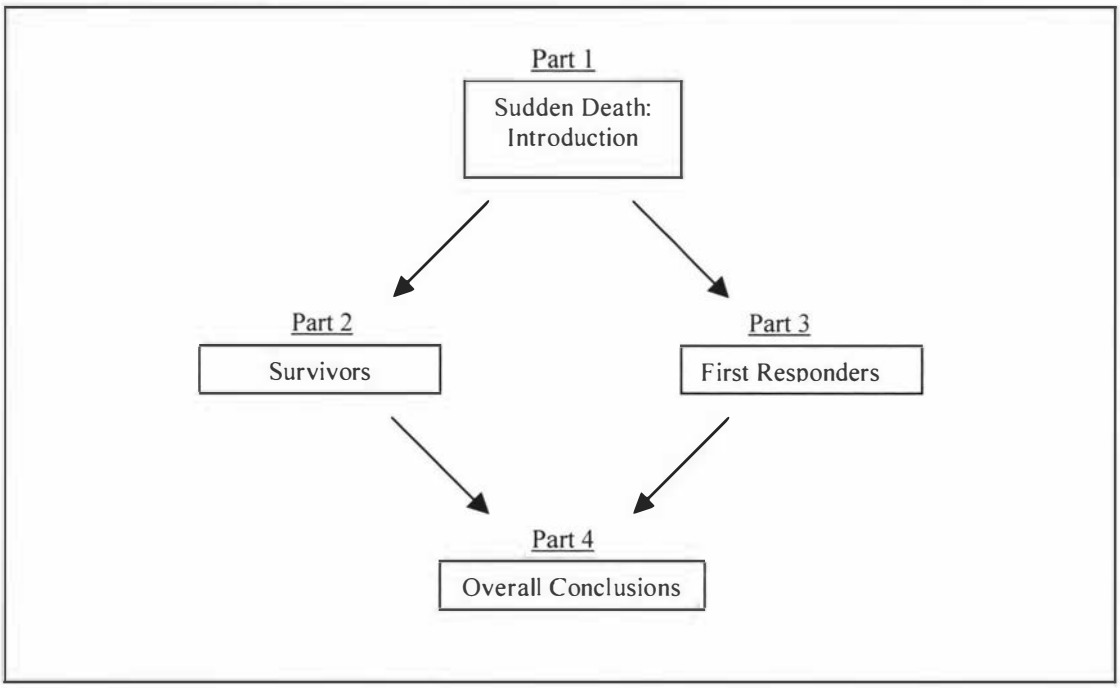

Figure 1.1 Graphical overview of the organisational structure of the thesis

Part One (Chapter 1) is an introduction to the overall thesis, including a brief introduction to the research topic, its terminology, and objectives.

Part Two investigates the effects of the immediate aftermath of sudden death on bereaved survivors. Chapter 2 reviews the evidence linking sudden bereavement to posttraumatic stress symptoms and complicated grief; the role of the peritraumatic distress in PTSD and CG; and then the evidence that violent death and first responder support may influence peritraumatic distress, PTSD, and CG. Chapter 3 explains the objectives of this part of the study, including the aims and hypotheses. Chapter 4 describes the methodology, Chapter 5 presents the results, and Chapter 6 is a discussion of the findings.

Part Three examines the effects of the immediate aftermath of sudden death on first responders (New Zealand police officers and VS volunteer crisis workers). Chapter 7 begins with a literature review on the impact of sudden death work on first responders, particularly police officers and crisis workers. This is followed by a sub-section

examining specific types of distress in the immediate aftermath of a sudden death: distress at survivor reactions, peritraumatic distress, and identification with survivors; and finally a sub-section discussing the impact that these types of distress may have on the support first responders offer survivors and on first responders' secondary traumatic stress. Chapter 8 identifies the objectives, including aims and hypotheses, of this part of the study. This is followed by the method (Chapter 9), results (Chapter 10), and discussion (Chapter 11).

Part Four (Chapter 12) combines the findings from both the survivor and the first responder studies. Overall conclusions from both studies are presented in this final chapter.

PART 2

IMPACT OF THE IMMEDIATE AFTERMATH OF SUDDEN DEATH ON SURVIVORS

CHAPTER 2:
INTRODUCTION

2.1 THE ROLE OF PERITRAUMATIC DISTRESS IN SUDDEN DEATH SURVIVORS' TRAUMA AND GRIEF SYMPTOMS

2.1.1 Sudden Death as a Risk Factor for Posttraumatic Stress Symptoms

I remember the newspaper picture of my sister's mangled bicycle, her running shoe, and the black puddles on the road. Even as a child I knew the puddles were her blood. I still cannot stand the sight of blood and avoid reading the newspaper.

Adams (2002, p.31)

My husband and I still think the police are here often if someone calls late at night. We are fearful for our boys always, especially if they are travelling. I hated to see police on the roads for some time.

Mother of 22-year-old road accident victim (current study)

Sudden death as a traumatic event

The sudden death of a loved one represents an abrupt break in the flow of life, an overwhelming assault on the senses, and a shattering of one's trust in the world with no chance to prepare (Rando, 1996). Janoff-Bulman's (1992) "assumptive world" theory proposes that individuals hold three assumptions about the world that may be shattered by a traumatic event: that it is benevolent, that it is meaningful, and that the self is worthy. It is widely held that sudden bereavement shatters all of these assumptions (e.g., Currier, Holland, & Neimeyer, 2006; B. L. Green, 2000; Redmond, 1996).

There are two criteria for what constitutes a traumatic event for a PTSD diagnosis and a sudden death may meet both of these (American Psychiatric Association, 1994). Criterion A1 states that a traumatic event may be one that was experienced *indirectly*

Table 2.1 *Diagnostic criteria for PTSD: DSM-IV*

A. The person has been exposed to a traumatic event in which both of the following were present:
    1. the person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others.
    2. the person's response involved intense fear, helplessness, or horror.

B. The traumatic event is persistently reexperienced in one (or more) of the following ways:
    1. recurrent and intrusive distressing recollections of the event, including images, thoughts, or perceptions.
    2. recurrent distressing dreams of the event.
    3. acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative flashback episodes, including those that occur on awakening or when intoxicated).
    4. intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event.
    5. physiological reactivity on exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event.

C. Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before the trauma), as indicated by three (or more) of the following:
    1. efforts to avoid thoughts, feelings, or conversations associated with the trauma.
    2. efforts to avoid activities, places, or people that arouse recollections of the trauma.
    3. inability to recall an important aspect of the trauma.
    4. markedly diminished interest or participation in significant activities
    5. feeling of detachment or estrangement from others.
       restricted range of affect (e.g., unable to have loving feelings).
    6. sense of a foreshortened future (e.g., does not expect to have a career, marriage, children, or a normal life span).

D. Persistent symptoms of increased arousal (not present before the trauma), as indicated by two (or more) of the following:
    1. difficulty falling or staying asleep.
    2. irritability or outbursts of anger.
    3. difficulty concentrating.
    4. hypervigilance.
    5. exaggerated startle response.

E. Duration of the disturbance (symptoms in Criteria B, C, and D) is more than 1 month.

F. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Specify if:

Acute: if duration of symptoms is less than 3 months.

Chronic: if duration of symptoms is 3 months or more.

Delayed onset: onset of symptoms is at least 6 months after exposure to the stressor.

American Psychiatric Association (1994)

and the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV; American Psychiatric Association, 1994) gives the example of learning of the sudden unexpected death of a close family member or friend (see Table 2.1, p 9). The diagnosis also requires a person to have responded to the event with intense fear, helplessness, or horror (criterion A2 or peritraumatic distress). A large epidemiological study showed that the majority of the sample reported at least one of these peritraumatic emotions after learning of a loved one's sudden unexpected death (Breslau & Kessler, 2001).

PTSD prevalence in sudden death survivors

The lifetime prevalence of PTSD is 5% for males and 10.4% for females (Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995). The rates are higher in traumatised populations, for example, 30.9% in Vietnam veterans (Weiss, et al., 1992); 65% in rape victims (Rothbaum, Foa, Murdock, Riggs, & Walsh, 1992); and 14.3% in people who have experienced a loved one's sudden unexpected death (Breslau, et al., 1998), although this may be as high as 60% when the death is violent (Murphy, et al., 1999). However, this prevalence rate among sudden death survivors belies the seriousness of PTSD in many such cases. Breslau et al. (1998) also found that the sudden unexpected death of a loved one was the most common traumatic event, experienced by 60% of their sample, and was the most common single precipitating event among those with a lifetime PTSD diagnosis (31.1%). Moreover, sudden death was the only event for which PTSD prevalence remained high throughout adulthood and in fact increased after the age of 40. Consequently, the authors called for the focus of PTSD-precipitating events to shift from personal violence to the "more important" cause of sudden death.

Risk factors

PTSD is said to involve a complex interplay of pre-event (e.g., demographics, past trauma), peri-event (e.g., variables related to the event, such as the nature of the stressor, and what happens immediately after, such as dissociation), and post-event (e.g., social support, coping style) factors (American Psychiatric Association, 1994; Schnurr, Friedman, & Bernardy, 2002) (see Table 2.2, p 11). A meta-analysis revealed that the most influential of these are peri-event factors (Ozer, et al., 2003), including peritraumatic dissociation - an altered sense of time, place, and person as the trauma unfolds (Marmar, Weiss, & Metzler, 1997) - (weighted $r = .35$), perceived support ($r = -.28$), peritraumatic emotions (fear, helplessness, and horror), and perceived life threat

(both r = .26). Subsequent studies using the Peritraumatic Distress Inventory (PDI; Brunet et al., 2001), published after Ozer et al.'s meta-analysis, have reported that peritraumatic distress is in fact a stronger PTSD predictor than peritraumatic dissociation (Birmes, et al., 2005; Brunet, et al., 2001; Simeon, Greenberg, Knutelska, Schmeidler, & Hollander, 2003). Given that peritraumatic distress is a relatively new construct with salience in predicting trauma symptoms, this study will focus on peritraumatic distress rather than peritraumatic dissociation.

Table 2.2 *Established predictors of PTSD*

Pre-event	**Peri-event**	**Post-event**
Previous trauma[1]	Peritraumatic distress[3]	Perceived lack of social support[1]
Lower education[2]	Dissociation[1]	Negative appraisals about the event[4]
Family history of psychopathology[1]	Perceived life threat[1]	Other life stress[2]
Poor prior adjustment[1]	Negative appraisals about the event[4]	Avoidant coping style[5]
Female gender [2]	Trauma severity[2]	
Younger age[2]		
Low intelligence[2]		
Ethnic minority[2]		
Childhood abuse/adversity[2]		
Low socioeconomic status[2]		

1 Ozer et al. (2003)
2 Brewin, Andrews, and Valentine (2000)
3 Birmes et al. (2005)
4 Ehring, Ehlers, and Glucksman (2007)
5 Bryant and Harvey (1995)

Research gap

Despite the high importance of peri-event factors in PTSD (Ozer, et al., 2003), research into these factors among sudden death survivors – a notable category of victims at risk of PTSD - is lacking. There is also little theoretical understanding of the mechanism(s) by which sudden death leads to PTSD. Thus, an important gap in this line of enquiry is the need to examine what happens during the peri-event period of sudden bereavement and specifically whether peritraumatic distress is involved in the relationship between sudden death and PTSD.

2.1.2 *Sudden Death as a Risk Factor for Complicated Grief*

Rachel was everything for me. She was all I'd ever been... I loved her so much...She was the most precious thing we had... They took everything away from me – all that counted. I'll never get over it. Never! Never! I know!

Raphael (1984 pp. 275-276)

Grief: A normal response to loss

Researchers have long acknowledged that while grief is a normal reaction to loss, it can exist in pathological forms (Engel, 1961; Freud, 1917; Horowitz, et al., 1997; Lindemann, 1944; Parkes & Weiss, 1983). Pathological or complicated grief, as it is widely known, is a growing research area. Yet investigation into sudden death as a risk factor for complicated grief is limited.

Immediate grief reactions include shock, disbelief, numbness, helplessness, anger, and guilt (Raphael, 1984); while long-term reactions may include emptiness, depression, idealisation of the deceased, anger, guilt, and adjustment to the loss (Horacek, 1991). Early grief theorists such as Freud (1917) and Lindemann (1944) believed grief should be completed within two years, at which time the survivor must become emotionally detached from the deceased. It is now widely accepted that grief may last a lifetime and that "healthy" grief involves adapting to life without the deceased while maintaining a symbolic relationship with the person who died (Horacek, 1991). Thus, complicated grief does not describe the time-frame of grief reactions but rather the *quality*, specifically either the absence or extreme intensity of normal reactions (Horacek, 1991; Prigerson, Shear, et al., 1999).

Complicated grief

Prigerson and colleagues (Prigerson, Frank et al., 1995; Prigerson, Maciejewski et al., 1995) coined the construct of complicated grief (CG), formerly known as traumatic grief, and now renamed prolonged grief disorder (Prigerson, Vanderwerker, & Maciejewski, 2007).[1] CG has been proposed as a diagnostic entity for the next Diagnostic and Statistical Manual of Mental Disorders (Horowitz, et al., 1997;

[1] Prigerson et al. (2007) renamed CG as prolonged grief disorder after the start of the current research, so the construct will continue to be referred to as complicated grief throughout this study.

Prigerson & Jacobs, 2001; Prigerson, Shear, et al., 1999; Prigerson, et al., 2007) (see Table 2.3). [2]

Table 2.3 *Proposed criteria for complicated grief*

Criterion A
1. The person has experienced the death of a significant other.
2. Response involves 3 of the 4 symptoms below at least sometimes:
2a. intrusive thoughts about the deceased
2b. yearning for the deceased
2c. searching for the deceased
2d. loneliness as result of the deathf
Criterion B In response to the death, 4 of the 8 following symptoms are mostly true:
1. Purposelessness or feelings of futility about the future
2. Subjective sense of numbness, detachment, or absence of emotional responsiveness
3. Difficulty acknowledging the death (e.g., disbelief)
4. Feeling that life is empty or meaningless
5. Feeling that part of oneself has died
6. Shattered world view (e.g., lost sense of security, trust, control)
7. Assumes symptoms or harmful behaviours of, or related to, the deceased person
8. Excessive irritability, bitterness, or anger related to the death
Criterion C
Duration of disturbance (symptoms listed) is at least two months
Criterion D
The disturbance causes clinically significant impairment in social, occupational, or other important areas of functioning

From Prigerson and Jacobs (2001)

The hallmarks of CG are 1) separation distress resulting from the death of a significant other, such as intrusive thoughts about the deceased, yearning, searching, or loneliness (criterion A); and 2) traumatic distress, which may include a sense of futility about the future, numbness, disbelief about the death, and excessive irritability, bitterness, or anger about the death (criterion B) (Prigerson & Jacobs, 2001). Approximately 20% of bereaved survivors show complicated grief at 6 months post-death (Prigerson, Shear, et al., 1999), although this can be higher in sudden death survivors. CG is reported to predict suicidal ideation (Latham & Prigerson, 2004; Prigerson, Bridge, et al., 1999),

[2] Revised criteria for prolonged grief disorder are shown in Appendix A.

PTSD (Melhem, et al., 2004b), poor social functioning, and mental health (Silverman, et al., 2000), altered eating habits, high blood pressure, heart problems, and even cancer (Prigerson, et al., 1997). The serious risks associated with CG further reinforce the need for it to be established as a separate diagnostic entity (Prigerson & Jacobs, 2001) and to cement the understanding of its risk factors.

The distinction between complicated grief and PTSD

Although CG correlates with depression and PTSD (in one study, 37% of participants with CG also met the criteria for PTSD and 50% for a major depressive episode (Silverman, et al., 2000); studies indicate that CG is distinguishable from these two disorders in terms of constructs, risk factors, course, treatment, and outcomes (Prigerson, Bridge, et al., 1999; Prigerson, Kupfer, et al., 1999; Prigerson, Maciejewski, et al., 1995; Reynolds, et al., 1999; Shear, Frank, Houck, & Reynolds, 2005; Silverman, et al., 2000). Symptom content is qualitatively different from PTSD in that the traumatic aspect of CG is the absence of the deceased, rather than anxiety that an event will be re-experienced (see Table 2.4).

Table 2.4 *Comparison of posttraumatic stress and complicated grief symptoms*

Posttraumatic stress reactions	Complicated grief reactions
Reexperiencing	
Intrusions of scene of trauma	Intrusions of deceased
Distress related to image	Distress that person not there, leading to longing, yearning
Reexperiencing of threatening aspects of event	Reexperiencing of person's presence, as though he/she were still there
Avoidance	
Avoids reminders of event	May seek out reminders of the deceased but avoid reminders of their *absence*
May have trouble talking about event	May be very driven to talk about the deceased
Arousal	
Oriented to threat and danger	Oriented to deceased person
Scanning for threats	Scanning for deceased or reminders of them

Adapted from Raphael and Martinek (1997) and Raphael, Martinek, and Wooding (2004)

Risk factors

Studies of CG risk factors are limited and sometimes inconclusive. For example, among a sample of bereaved adults, CG was independent of previous psychiatric disorders (Latham & Prigerson, 2004), while in bereaved adolescents it was related to previous history of depression (Melhem, et al., 2004a). Some studies show that females are more at risk of CG (Chen, et al., 1999; K. Dyregrov, Nordanger, & Dyregrov, 2003; Melhem, et al., 2004a), while others have found no gender differences (Boelen & Bout, 2003; Ott, 2003). CG is also thought to be related to childhood adversity such as parental death and abuse (Prigerson et al., 1997; Silverman et al., 2001), childhood separation anxiety (Vanderwerker, Jacobs, Parkes, & Prigerson, 2006), more life stressors and less perceived social support (Ott, 2003), social isolation and death of an only child (K. Dyregrov, et al., 2003), death of a spouse or close relative (Mitchell, Kim, Prigerson, & Mortimer-Stephens, 2004; Prigerson, et al., 2002), and a feeling that the survivor could have prevented the death (Melhem et al., 2004a).

Complicated grief in sudden death survivors

Reported CG prevalence rates among sudden death survivors are as high as 78% (Dyregrov et al., 2003). Yet some researchers claim that CG may be unrelated to suddenness (Ott, 2003) or that mode of death plays only a small role in CG (Cleiren, 1991; Prigerson, et al., 2002; Prigerson, et al., 2000; Turvey, Carney, Arndt, Wallace, & Herzog, 1999). Prigerson and colleagues (2000) stress that CG relates to the distress of losing a significant relationship, not the distress of the traumatic event itself. They argue elsewhere (Jacobs, Mazure, & Prigerson, 2000) that if sudden death increases the risk of CG, it is probably because the suddenness causes an "attachment disturbance" in the relationship between the survivor and deceased, leading to intense separation distress. This theory has not been tested.

Research gap

Although the prevalence rates of CG reported in the literature clearly appear higher in survivors of sudden death than in the general population, researchers have failed to reach consensus about the possible mechanism(s) involved in this relationship, let alone even agree that this is this case. Denying this relationship or focussing solely on attachment disturbance as a potential explanation prevents the furthering of knowledge in this important area. This means that the risks of CG in sudden death survivors may

be underestimated. The next chapter will argue that the traumatic nature of sudden death may indeed be relevant to CG and therefore the peri-event period of a sudden death may be critical not only to the understanding of PTSD but of CG as well.

2.1.3 *The Role of Peritraumatic Distress in Sudden Death*

I think I was in shock and maybe couldn't really believe/accept that he was dead.

Wife of 73-year-old heart attack victim (current study)

Evidence shows that the immediate aftermath of a sudden death may remain etched in survivors' minds for years to come (Parrish, Holdren, Skiendzielewski, & Lumpkin, 1987; Spungen, 1997; Wright, 1991). Survivors recall their heightened perception of the sounds, sights, and smells (Stewart, 1999; Wright, 1991); acute grief reactions including shock, disbelief, numbness, helplessness, anger, and guilt (Raphael, 1984); physiological responses such as rapid heartbeat, sweating, trembling, and fainting (Spungen, 1998); and traumatic reactions including dissociation (Spungen, 1998), fear, helplessness, and horror (Breslau & Kessler, 2001).

These reactions to threat, which occur as a traumatic event unfolds and immediately after, are known as peritraumatic distress (Brunet, et al., 2001) and may last as long as 48 hours after a traumatic event (A. Brunet, personal communication, June 6, 2006). Previously, peritraumatic distress studies were limited to the DSM-IV A2 criteria for PTSD and thus only measured immediate fear, helplessness, and horror. However, it has since been recognised that people may respond to a traumatic event with other immediate physiological and emotional reactions, also known as fight or flight responses. These are captured in the 13-item Peritraumatic Distress Inventory (PDI; Brunet et al., 2001), which, as well as fear, helplessness, and horror, also measures peritraumatic reactions described in the trauma literature such as perceived life threat (e.g., March, 1993), guilt (e.g., Solomon, Laor, & McFarlane, 1996), shame and anger (e.g., Brewin, Andrews, & Rose, 2000), loss of bowel and bladder control (H. Lehman, 1985), and increased fear-specific autonomic signs such as rapid heart rate, shaking, and trembling (Bernat, Ronfeldt, Calhoun, & Arias, 1998; Bracha, Williams, Ralston, & Berstein, 2005). Peritraumatic dissociation is not included in the PDI because Brunet et al. (2001) argue it is adequately covered by other measures.

There is growing evidence that peritraumatic distress may be more influential in understanding PTSD than peritraumatic dissociation (e.g., Birmes et al., 2005; Marmar et al., 2006). For example, Birmes et al. (2005) examined peritraumatic and acute

predictors of PTSD among survivors of a fatal industrial fire and concluded that peritraumatic distress, dissociation, and acute stress disorder each had a significant independent effect on PTSD at six months, with peritraumatic distress having the largest correlation with PTSD ($r = .67$) and explaining 15% of the unique variance in PTSD scores. Moreover, evidence suggests that peritraumatic fears about death and losing control mediate the relationship between peritraumatic dissociation and PTSD (Gershunny, Cloitre, & Otto, 2003) and that peritraumatic dissociation may develop simultaneously or as a secondary response to peritraumatic distress (Fikretoglu, et al., 2007). Recent evidence also suggests that differences in peritraumatic distress rather than biological sex may explain females' higher risk of PTSD (Lilly, Pole, Best, Metzler, & Marmar, 2009).

Peritraumatic distress differs from acute stress disorder (ASD), which is also a robust PTSD predictor (e.g., Bryant, 2004; Harvey & Bryant, 1999). ASD symptoms must be present two days to four weeks after a traumatic event, while the focus of the current research is the peri-event period, which occurs during and immediately after the traumatic event. The ASD diagnosis has been criticised for emphasising dissociation as the most important acute trauma response (e.g., Bryant & Harvey, 1997), and for essentially measuring early PTSD symptoms (Marshall, Spitzer, & Liebowitz, 1999).

Risk factors

Researchers have paid scant attention to the factors associated with peritraumatic distress. A consistent finding is that peritraumatic distress and peritraumatic emotions (A2 criteria) tend to be higher in females (Breslau & Kessler, 2001; Brewin, Andrews, & Rose, 2000; Brunet, et al., 2001; Creamer, McFarlane, & Burgess, 2005). Life threat (McCaslin, et al., 2006), assaultive violence (Creamer, et al., 2005), and family history of mood and anxiety disorders and substance abuse (Inslicht, et al., In press) have also been linked to greater peritraumatic responses.

Theories of peritraumatic distress

Much of the understanding of the relationship between peritraumatic distress and PTSD can be traced to the two main cognitive theories of PTSD (Brewin, Dalgleish, & Joseph, 1996; Ehlers & Clark, 2000). Brewin et al.'s (1996) dual representation theory posits that two separate memory systems are at work during a traumatic event. Verbally

Accessible Memories (VAMs) of the trauma have been sufficiently processed to become integrated with one's autobiographical memory and can be retrieved voluntarily through speech or writing. Situational Accessible Memories (SAMs), on the other hand, are formed during extreme peritraumatic distress. This distress blocks conscious processing, thus the memories are stored as fragments rather than a coherent autobiographical account, and are triggered involuntarily by situational cues that are reminiscent of the traumatic event. These involuntary triggers, or intrusive symptoms, elicit a sense of threat, which the individual may try to control by thought suppression or avoidance of cues. Thus, the VAMs receive little further emotional processing and the fragmented memory and intrusions persist.

Similarly, Ehlers and Clark (2000) argue that there are two cognitive processes by which individuals with PTSD perceive a sense of current threat. First, they may make negative appraisals about the traumatic event, their peritraumatic reactions, or their posttraumatic stress symptoms as being a threat to their physical integrity (e.g., "nowhere is safe") or to their sense of self (e.g., "it was my fault" or "I'm going crazy"). Second, the memories formed during the peri-event period may be poorly integrated into their autobiographical memory because of the emphasis on sensory information (data-driven processing as opposed to conceptual processing). For example, a smell, sound, or sight associated with the traumatic event can reoccur involuntarily, leading the individual to believe that the sense of threat is still present.

Elaborating on this, Ehlers et al. (2002) found that intrusive memories often consist of stimuli that were present immediately before the event occurred or before the peritraumatic distress peaked. These intrusions function as a "warning signal" of impending danger, hence the sense of current threat that accompanies them. Other researchers argue that intrusions are generally of the "worst moments" of the event, during the peak of peritraumatic distress, known as "hotspots" (Grey, Holmes, & Brewin, 2001; E. A. Holmes, Grey, & Young, 2005; Richards & Lovell, 1999). Taken together, it appears that peritraumatic distress is not only a strong predictor of PTSD but has the potential to lead to enduring, frightening memories.

Complicated grief and peritraumatic distress

Current opinion on CG is that peritraumatic distress is unimportant because CG is an issue of attachment, not trauma (Jacobs, Kasl, & Ostfield, 1986). While Prigerson and colleagues acknowledge that fear and horror are important factors in violent deaths and that research is needed to examine their role in relation to CG, they state: "at this point we are not convinced that individuals who meet our criteria for [complicated grief] feel intensely horrified or frightened as a result of the death" (Prigerson, et al., 2000, p.167). These researchers also suggest that although a preliminary study (Jacobs, et al., 1986) found a relationship between the peritraumatic emotion of helplessness and CG, the results are inconclusive because of methodological limitations.

However, Green (2000) cogently argues that grief and PTSD involve both trauma and attachment. She asserts that grief and trauma share four conceptual factors. First, both may involve *disorganisation* to the continuity of daily life or disruption to one's assumptions about the world. Second, they may break *attachment* bonds between the survivor and the deceased, leaving the survivor feeling vulnerable, while both grief and trauma symptoms may interfere with attachments and social resources that facilitate coping. Third, grief and trauma may involve *annihilation* or the psychological loss of the self – a feeling that the survivor cannot go on as before. The final shared concept is that of *helplessness and loss of control.* Taken together, it could be said that threat-related themes are central to both trauma and grief.

The role of peritraumatic distress in the current study

If threat is common to both trauma and grief, it is hypothesised that peritraumatic distress will predict both PTSD and CG in sudden death survivors. Indeed, if peritraumatic distress disrupts the processing of trauma information (Brewin, et al., 1996; Ehlers & Clark, 2000), it may also disrupt the processing of grief information, resulting in CG. It has been suggested that failure to integrate information about the death itself may lead to PTSD, while failure to integrate information about the loss of attachment to the deceased may result in CG (Shear, et al., 2007), but this has not been tested. This is feasible, given that CG is essentially the non-acceptance of the death, and if the survivor is unable to comprehend this at the time, it may be more difficult to build into a coherent narrative or make sense of later on. In fact, studies have linked the inability to make sense of a death to CG (Currier, et al., 2006). Yet, despite suggestions

that death may be threatening to the survivor's sense of self, happiness, and survival (Neimeyer, Prigerson, & Davies, 2002), leading complicated grief researchers have not investigated the role of peritraumatic distress in relation to CG. Therefore, the current study addresses an important gap in the understanding of CG and may reveal peritraumatic distress as a mechanism involved in the relationship between sudden death and symptoms of both PTSD and CG.

Finally, research shows the strength of peritraumatic factors and peritraumatic distress in accounting for PTSD variance (Birmes et al., 2005; Brunet et al., 2001; Ozer et al., 2003; Simeon et al., 2003). As it is expected that peritraumatic distress is common to both PTSD and CG, it is hypothesised that peritraumatic distress will be a stronger predictor than other pre-event (e.g., demographic details, prior trauma), peri-event (e.g., nature of the death), and post-event (e.g., coping strategies) variables in relation to both PTSD and CG.

2.2 FACTORS THAT MAY INFLUENCE PERITRAUMATIC DISTRESS IN SUDDEN DEATH SURVIVORS

Part 1 of this chapter has argued that peritraumatic distress is a manifestation of threat that is common to both trauma and grief. This study now turns to two factors that may result in increased threat among sudden death survivors: violent death and perceived lack of first responder support. Given that research into potential peritraumatic distress risk factors is in its infancy, there are no definitive guidelines as to which variables would be most relevant to sudden death survivors. Several considerations were made in selecting variables that could be risk factors. The primary concern was that the variables should be specifically relevant to sudden death survivors. Violent death and first responder support are commonly described in the sudden death literature as factors of significance unique to this population. While other factors such as death of a child and life threat are also widely discussed, these are likely to involve just a small subset of the population. Moreover, it was thought important to include variables that were objective (violent death) and subjective (first responder support), enabling a more complete picture of peritraumatic distress risk factors to emerge.

It should be noted that other factors may also be relevant to understanding peritraumatic distress in sudden death survivors, such as correlates of peritraumatic distress including survivor gender (Breslau & Kessler, 2001; Brewin et al., 2000; Brunet et al., 2001; Creamer et al., 2005) and life threat (McCaslin, et al., 2006); risk factors for PTSD including prior trauma (Ozer, et al., 2003); and factors associated with increased CG including childhood adversity (Prigerson et al., 1997; Silverman et al., 2001). These variables are nonetheless measured in this study but they are not the focus.

3.2.1 Violent death

Violent death - commonly defined as that resulting from accident, suicide, or homicide - is widely considered to add to the distress of bereaved survivors and to involve additional complications often not found in other deaths, such as horror, violation, volition, vulnerability, cognitive dissonance, fear, anger, guilt, challenges to one's belief system, and loss of control (e.g., B. L. Green, et al., 2001; Murphy, et al., 1999; Rando,

1996; Redmond, 1996; Rynearson, 2001) A number of factors may differentiate the reactions of violent death survivors from those of non-violent death.

First, violent deaths often result in grotesque or mutilating injuries to the deceased's body. Even if survivors do not see their loved one's body or witness their death, they may be flooded with horrific images of what the body looked like and how the person suffered before their death (Rynearson & McCreery, 1993; Singh & Raphael, 1981). Second, accidents, suicides, and homicides often involve the deaths of young people. For example, the highest suicide rates in New Zealand are for males aged 25 to 44 years and females aged 15 to 24 (Ministry of Health, 2007b). Losing a loved one prematurely is associated with shock, disbelief, anger, guilt, and unfairness (Raphael, 1984). One study found that bereaved parents had more intense grief reactions than bereaved spouses and bereaved adult children (Middleton, Raphael, Burnett, & Martinek, 1998), while in another, younger age of the deceased was the strongest predictor of grief distress up to 25 years post-death among surviving family members (Gamino, Sewell, & Easterling, 1998). Third, homicide and suicide are deliberate acts of violence by humans, while accidents may involve human negligence. Rynearson (2001) describes the element of human responsibility in violent deaths as characterised by volition and violation. Each may make these deaths particularly hard to make sense of, with volition leading to a compulsive search for answers and violation resulting in a range of emotions including shame, blame, and anger. Finally, violent deaths may involve perceptions of preventability or randomness. If the survivor perceives that the death could have been prevented, they may experience intense anger and blame (Rando, 1996), and a sense of unfairness and helplessness (Worden, 1982). Self-blame and guilt may be exacerbated in parents whose children die suddenly because they may feel they failed to protect their offspring (Miles & Demi, 1991). On the other hand, if the death appears random, survivors may blame themselves in order to protect their belief that the world is safe and predictable (Rando, 1996). Taken together, violent deaths may amplify the threat to one's sense of self, and trust in others and in the process of life (e.g., Green et al., 2001; Murphy et al., 1999; Rando, 1996; Redmond, 1996; Rynearson, 2001).

Violent death and PTSD

Only two known studies have compared violent and non-violent sudden bereavement in relation to trauma and both show that violent sudden deaths may result in more PTSD (Kaltman & Bonanno, 2003; Zisook, Chentsova-Dutton, & Shuchter, 1998). Zisook et al. (1998) found that two months post-death, 36% of those bereaved by their spouse's violent death (accident or suicide) had PTSD compared with 9% of those whose spouse died suddenly but from natural causes. In another sample of bereaved spouses, Kaltman and Bonanno (2003) found that violent death (accident, suicide, or homicide) resulted in a higher proportion of PTSD cases than non-violent death at both six months post-death (50% vs. 5%) and 14 months (40% vs. 5%).

Indeed, survivors of violent death tend to show elevated rates of PTSD, for example 5% to 36% following suicide (Murphy et al., 1999), 17% to 35% after accidental death (Murphy et al., 1999), 57% following a drunk driver road crash (Sprang, 1997), to 26% (M. P. Thompson, Norris, & Ruback, 1998) to 60% following homicide (Murphy et al., 1999). This compares with 14.3% following a sudden death in general (Breslau et al., 1998).

However, no known attempts have been made to test theories that may explain the higher rates of PTSD among violent death survivors. The most common idea is that violent deaths result in a greater shattering of assumptions about themselves and the world (e.g., B.L. Green et al., 2001; Murphy et al., 1999; Rando, 1996; Redmond, 1996; Rynearson, 2001). Murphy et al. (1999) argue that shattered assumptions would lead to intense fear and anxiety in the immediate aftermath. This highlights the need to examine the peri-event period in the development of PTSD in this population, and in particular whether peritraumatic distress can distinguish between survivors of violent and non-violent sudden deaths.

Violent death and CG

The data show a similar picture for CG. Rates among violent death survivors include 20% following suicide (Prigerson, Bridge et al., 1999), 71% following accident (Spooren et al., 2000), and 78% following suicide or accident (Dyregrov et al., 2003). By contrast, CG is reported to affect just 20% of bereaved people in general. However, there is debate about whether violent death increases the risk of CG. Prigerson et al.

(2002) found that while violent deaths resulted in the highest proportion of CG cases (38%) among recently bereaved psychiatric clinic patients in Pakistan, this was not significantly more than other causes of death. Similarly, survivors in another study who perceived their close family member's death as sudden were more than twice as likely to have CG as those who perceived it to be violent (Barry, et al., 2002). The authors concluded that violent death may not be a useful indicator of CG, however 96% of their sample lost their loved one to natural causes, hence their findings may not be generalisable to survivors of "objective" violent deaths such as suicide, homicide, and accidents.

To the contrary, in a sample of bereaved parents, Keesee, Currier, & Neimeyer (2008) compared objective factors (violent death, parent gender, age, time since loss, and child's age) with subjective factors (ability to make sense of the death and find benefit) in predicting CG. Violent death was the strongest predictor overall and the only significant objective factor. In another study (Currier, et al., 2006), violent death predicted CG significantly more than natural deaths (sudden and anticipated) among recently bereaved college students. When only sudden deaths were examined, those that were violent still explained greater variance in CG than non-violent (sudden natural) deaths. Moreover, the relationship between violent death and CG was mediated by the students' ability to make sense of the death (measured by the Likert-scale item "how much sense would you say you have made of the loss?"). Consistent with the violent death and PTSD research, the authors reasoned that violent deaths are more difficult to make sense of because violence results in greater shattering of one's assumptive world.

Peritraumatic distress may be the mechanism by which violent death is related to PTSD and CG. While it has already been argued that sudden death may result in a sense of threat for survivors, it is likely that this threat is amplified when the death is violent, remembering that vulnerability, cognitive dissonance, fear, anger, guilt, challenges to one's belief system (shattered assumptions), and loss of control are often factors in violent deaths. These factors may equate to a sense of threat and manifest as peritraumatic distress.

Further, it is possible that peritraumatic distress may mediate the relationship between violent death and both PTSD and CG. This may explain why some studies have failed to find a relationship between violent death and CG: because it is not the nature of the death *per se* that results in adverse long-term reactions, but the degree of the survivor's initial reactions. This theory is consistent with the findings of Currier et al. (2006) who showed that reactions to the death (an inability to make sense of the loss), rather than the death itself, mediated the relationship between violent death and CG. Therefore, this study hypothesises that 1) violent death will be related to increased peritraumatic distress, PTSD and CG; and 2) that peritraumatic distress will mediate the relationship between violent death and symptoms of trauma and grief.

3.2.2 First Responder Support

It is amazing what an impact the actions/reactions of others can have during this traumatic and very vulnerable time. I remember very clearly the things that were said and done which were comforting. I remember just as clearly, in fact, perhaps more clearly, the things that were said and done which were hurtful and upsetting.

Janzen, Cadell, and Westhues (2004, p.161)

The police were endeavouring to remove my brother's body as quickly as possible without any reference to us and were rude when I showed my emotions.

Sister of 44-year-old sudden death victim (current study)

It is widely considered that sudden death survivors have immediate needs (e.g., Fraser & Atkins, 1990; Janzen, et al., 2004; Jurkovich, Pierce, Pananen, & Rivara, 2000; D. R. Lehman, et al., 1986; Li, Chan, & Lee, 2002), and growing research suggests that they may be at higher risk of distress when these needs are unmet (Davidowitz & Myick, 1984; D. R. Lehman, et al., 1986; Spooren, et al., 2000; K. E. Thompson & Range, 1992). Numerous surveys of sudden death survivors' needs have revealed specific actions and types of support that survivors find helpful in the immediate aftermath, which are strikingly similar across studies (e.g., Fraser & Atkins, 1990; Janzen, et al., 2004; Jurkovich, et al., 2000; D. R. Lehman, et al., 1986; Li, et al., 2002). These include the need for information about the circumstances of the death and the procedures that follow, to view their loved one's body, to receive empathy and understanding, and to be able to make their own decisions. When met, these needs could be described as examples of how to "care" for a bereaved survivor, while when survivors receive the opposite of what they need, this could be described as an attempt to "cure", "fix", or "rescue" the survivor. Examples of "cure" behaviours include withholding information (Spungen, 1997); taking over tasks (Ingram, Betz, Mindes, Schmitt, & Smith, 2001; D. R. Lehman, et al., 1986); using minimising and clichéd statements, such as "I know how you feel" or "things will get better soon" (D. R. Lehman, et al., 1986); preventing viewing of the body (e.g., Dix, 1998; Goldsmith & Haddington, 1997; Singh & Raphael, 1981); preventing expression of reactions (Ingram, et al., 2001); and showing emotional coldness (Pastorella, 1991; Spungen,

1997). The "care" or "cure" distinction is important in the current study because the onus to meet survivors' needs is often on those who interact with survivor in the immediate aftermath, such as first responders.

The impact of unmet survivor needs

Sudden death survivors do not always get the support required to meet their needs or they may find support attempts unhelpful, increasing their risk of adverse psychological reactions, including CG (Davidowitz & Myick, 1984; D. R. Lehman, et al., 1986; Spooren, et al., 2000; K. E. Thompson & Range, 1992). For example, Spooren et al. (2000) surveyed parents about their satisfaction with first responders around the time of their child's accidental road death an average of four years prior. Approximately half the parents were dissatisfied with key aspects of the care from emergency services: 52.5% with the amount of information received about the circumstances of their child's death, 50.6% with the practical help (e.g., police not offering transport to the hospital), and 46.9% with the amount of time and space they were given to be with their child's body. Importantly, nearly three-quarters of parents scored above case thresholds in psychiatric distress (72.6%) and CG (71.4%). Dissatisfaction with practical support during the peritraumatic phase, information about the circumstances of the death, perceptions of low current support, overall support, and being female were significantly related to CG. Similarly, in a study of parents whose child died in a Norwegian bus accident, an ongoing need for information about their child's death predicted poorer psychological adjustment three years later (Winje, 1998).

A study of homicide survivors also found that dissatisfaction with first responders' immediate support can affect subsequent distress. Thompson et al. (1998) compared factors that predicted psychological distress among survivors an average of 2.9 years after a family member's murder. Lower satisfaction with the death notification process, which was often performed by police officers, led to significantly higher distress. Overall, dissatisfaction with the death notification, where the notification occurred, and who performed the notification explained more variance in psychological distress than visiting the crime scene and identifying the body. These findings highlight that the way in which initial information about the death is communicated can affect long-term psychological outcomes, and that further research into the neglected area of death notification is warranted, a sentiment shared by other researchers (Hall, 1982; Spungen,

1997). This has implications for the current study because in New Zealand, police officers are usually responsible for notifying survivors of a sudden death, and they are often accompanied by VS workers when they do this.

Other studies have reported that specific interactions with support people are deemed unhelpful. Lehman et al. (1986) interviewed survivors about others' support attempts following the death of their spouse or child in a road accident four to seven years earlier and also asked matched controls what they would do or say to help a bereaved spouse or parent. The bereaved and control groups had similar views on what was helpful and unhelpful, and only 11% of controls said that they would do or say things that the bereaved considered were unhelpful. In reality however, 62% of the survivors had received unhelpful support, including encouragement of recovery, rude remarks/behaviours, and minimisation of their loss/forced cheerfulness. A similar finding emerged in another study of adults who had experienced a stressful event, including a close family member's death (Ingram, et al., 2001). Unhelpful interactions including behavioural or emotional disengagement; awkward, intrusive, or inappropriate attempts to "fix" or "cure" the victim; forced optimism or downplaying the significance of the event; and blaming the victim predicted psychological distress 12 months after the stressful event.

The need to view the body may also have adverse consequence if not met. Singh and Raphael (1981) studied psychological adjustment in surviving family members of people killed in an Australian rail disaster. All but 8 of the 44 participants were prevented from seeing their loved one's body by well-meaning family and 61% regretted being denied this opportunity up to 18 months later, mainly because they thought it inhibited their acceptance of the death and prevented them from saying goodbye. Those who saw the body had significantly better physical and psychological health than those who never saw the body. It is common for survivors who do not see the body to be haunted by horrifying intrusive images of how it is imagined to have looked - images that are usually far worse than the reality (e.g., Merlevede, et al., 2004; Singh & Raphael, 1981).

Role of peri-event support in this study

Evidence already exists that survivors whose early needs are not met may be at higher risk of CG (Spooren, et al., 2000) and psychological distress (Ingram, et al., 2001; Singh & Raphael, 1981; M. P. Thompson, et al., 1998; Winje, 1998). Yet there is no known theory to account for this finding in CG or any studies of how immediate support may influence PTSD in sudden death survivors. As already argued, survivors are likely to feel a sense of threat when they experience a loved one's sudden death, which may result in a myriad of peri-event reactions that ultimately leave them feeling vulnerable and disempowered. It is argued that if survivors perceive less support from those around them in the immediate aftermath, they are likely to feel even more threatened, confused, helpless, fearful, vulnerable, and powerless. It should be noted that peritraumatic distress lasts up to 48 hours, so although lack of support may not be the original cause of distress, it may nonetheless exacerbate distress in the early aftermath when survivors are already vulnerable.

It can be expected that perceived lack of first responder support - fewer immediate needs being met, lower ratings of helpfulness, and more complaints about the support - will be associated with higher peritraumatic distress, irrespective of the nature of the death. Thus, it is hypothesised that the relationship between first responder support and peritraumatic distress will be independent of whether the death was violent or not. Consistent with the findings in this field, it is also expected that survivors who perceive lower first responder support will show elevated PTSD and CG symptoms. It is also argued that peritraumatic distress is the key to understanding how unmet survivor needs can lead to heightened trauma and grief symptoms. Therefore, it is anticipated that peritraumatic distress will mediate the relationships between first responder support and symptoms of PTSD and CG.

Introducing I CARE: A mnemonic to remember and measure sudden death survivors' immediate needs

Despite research consistently identifying similar needs among bereaved survivors, there is as yet no standardised measure of these needs or any research examining the impact of survivors' needs as a whole. Certain needs appear to be particularly important to survivors and research shows unmet needs may result in increased distress. Thus, it is

imperative to know more about how survivors' perception of how their needs being met affects their grief and trauma symptoms.

A review of the literature on survivors' needs for the current research revealed that the peri-event needs of sudden death survivors can be grouped into five categories forming the acronym I CARE: receiving information (Information), regaining control (Control), facilitating acceptance (Accept), being able to react (React), and receiving empathy (Empathy) (see Table 2.5, p 32). A goal of this research is to develop a scale of survivor needs, measuring both the degree to which survivors feel their immediate needs were met and the degree to which first responders perceive that they met those needs. Development of this measure, known as the I CARE scale because it includes items representing each letter in the mnemonic, is described in the method and results sections. As a mnemonic, I CARE can also be used to help those who work with sudden death survivors focus on the reason behind these needs rather than having to commit to memory specific examples of the needs themselves. For example, by understanding that survivors have a need for control, first responders may be more likely to engage in interactions that help restore control, such as encouraging decision-making. Furthermore, the mnemonic reinforces the overall message echoed throughout the research on survivors' needs: that first responders should focus on empowering the survivor through "care not cure". Ultimately, if shown that survivors who perceive fewer need being met (lower I CARE scores) also have higher peritraumatic distress, then first responders may play an important role in preventing PTSD and CG by focussing on meeting survivors' peri-event needs.

Table 2.5 *Helpful ("care") and unhelpful ("cure") interactions in the immediate aftermath*

CARE		CURE	
Victim need	Example	Helper reaction	Example
Information *To help victim make sense of what has happened, restore control & prepare for what's next*	• Circumstances of the death • Formal procedures (e.g., autopsy, police inquiry, funeral, coroner's inquest) • Written information on grief and trauma reactions • Contact details • Clear communication, free of jargon and euphemisms	Withhold information	• "Protect" victim from the facts • Communicate information in a condescending way
Control *To help empower victim at a time that is disempowering*	• Encourage decision-making • Respect ethnic or religious customs • Be present without being intrusive	Take over control	• Take over tasks • Make decisions without consulting victim • Be overprotective
Accept *To help facilitate acceptance of what has happened*	• Talk about the death and the deceased if appropriate • Use "d" words: death, dying, died, dead • Encourage viewing of the body if appropriate	Minimise and blame	• Use clichés to detract from the true impact • Tell victim to look on the bright side/offer false hope • Prevent victim from seeing the body or other reminders of the event
React *To express how they feel at that moment, including no reaction or no desire to talk about it*	• Validate victim's reactions • Accept all reactions including no reaction at all	Inhibit emotional expression and encourage recovery	• Change the subject • Tell victim to stop crying/be strong
Empathy *To receive compassion, warmth & understanding*	• Spend time in an unhurried manner • Listen • Demonstrate compassion, sensitivity, warmth, understanding and flexibility	Sympathy and emotional coldness	• Pitying and feeling sorry for victim • Ending own distress by wishing victim's distress would end • Professional distance that comes across as cold

Adapted from Fraser and Atkins (1990), Janzen et al. (2004), Jurkovich et al. (2000), Lehman et al. (1986), and Li et al. (2002).

3.2.3 Summary of Chapter 2

Posttraumatic stress disorder (PTSD) and complicated grief (CG) are often higher among survivors of sudden death than anticipated deaths, and may be higher still when the death is violent (e.g., homicide, suicide, accident). Evidence shows that factors more proximal to the traumatic event, especially peritraumatic distress, are the strongest predictors of PTSD. However, peri-event factors have been relatively ignored in sudden death research and peritraumatic distress has not previously been studied in relation to sudden death.

It is argued that peritraumatic distress may explain the relationship between sudden death and PTSD symptoms. This is consistent with cognitive theories of PTSD, which claim that initial post-trauma distress disrupts information processing, resulting in intrusive symptoms and ultimately PTSD. Therefore, it follows that peritraumatic distress may also disrupt the information processing of grief-related material, resulting in CG. Previously, CG researchers have dismissed the role of peritraumatic factors, however peritraumatic distress may help explain the relationship between sudden death and CG. Consequently, it is hypothesised that peritraumatic distress will be the strongest predictor of both PTSD and CG symptoms.

Two frequently-discussed factors in sudden death research that are thought to heighten survivors' distress are violent death and lack of support in the immediate aftermath. It is argued that each of these will have an independent effect on peritraumatic distress and will also be associated with greater PTSD and CG symptoms. Given the hypothesised importance of peritraumatic distress in understanding trauma and grief symptoms, it is expected that peritraumatic distress will mediate any relationship between violent death and first responder support with symptoms of PTSD and CG.

CHAPTER 3:
OBJECTIVES OF THE CURRENT STUDY

3.1 Aims

Part 2 of this research investigates the impact of the peritraumatic phase of a sudden death on psychological distress for the deceased's close surviving family and friends. There are two main aims:

1) To identify the factors that predict peritraumatic distress in sudden death survivors.
2) To identify what factors in the peri-event period influence subsequent PTSD and CG symptoms, specifically the roles of peritraumatic distress and the support offered by first responders (police officers and VS workers). To achieve this, a measure of survivors' peri-event needs (I CARE scale) will be developed.

This investigation will help formulate a theory of how sudden death leads to traumatic stress and complicated grief. A greater understanding of the peritraumatic period may also help first responders meet the needs of sudden death survivors during this critical time.

3.2 Hypotheses

1) Peritraumatic distress will be the strongest predictor of both posttraumatic stress (IES-R) and complicated grief (ICG) symptoms.

2) Violent death (homicide, suicide, accident) and lack of first responder support (composite measure of I CARE, overall helpfulness, and complaints) will be the strongest predictors of peritraumatic distress (PDI).

3) First responder support will predict peritraumatic distress independent of whether the death was violent or not.

4) There will be a positive association between violent death and both PTSD and CG symptoms, which will be mediated by peritraumatic distress.

5) There will be a negative relationship between first responder support (composite measure) and both PTSD and CG symptoms, which will be mediated by peritraumatic distress.

CHAPTER 4:
METHOD

4.1 Research design

This chapter describes the instruments and methods used to collect data for the bereaved survivors' study. To avoid duplication, methods that also apply to the first responders' study (Part 3), are described in this chapter. Due to the study's exploratory nature and utilisation of several new measures, a cross-sectional design was considered the most appropriate method of obtaining relatively fast feedback. Although a qualitative design may be appropriate for sensitive topics such as bereavement, a questionnaire was chosen for its ability to collect preliminary data effectively from a large sample. Questionnaires are common in bereavement and trauma research with both survivors and first responders (e.g., K. Dyregrov, et al., 2003; D. R. Lehman, Wortman, & Williams, 1987; Robinson, Sigman, & Wilson, 1997; M. P. Thompson, et al., 1998). The questionnaire also allowed for the trialling of the I CARE scale and Identification with Survivors Scale (see Part 3), developed specifically for this study. Economy was considered in the selection of measures in all versions of the questionnaire: survivors, police, and VS workers. Pilot study feedback indicated that although the questionnaires were comprehensive, especially regarding details of the sudden deaths, they only took 15 to 20 minutes to complete.

Ethical Considerations

Death and trauma are sensitive issues. It was carefully considered how to learn more about these topics without overly distressing or retraumatising participants. Extensive consultation occurred with the three parties who approved this study: Massey University Human Ethics Committee; the Research and Evaluation Steering Committee of the Office of the Commissioner of Police at New Zealand Police Headquarters; and the national office and board of Victim Support.

This study met ethical guidelines published by other bereavement researchers (Cook, 2001; Parkes, 1995), addressing recruitment, consent, research design, and the response to participant distress. Questionnaire items and methodology were reviewed by New

Zealand grief counsellors, educators, and suddenly bereaved individuals known to the researcher. The questionnaire was designed to include a mixture of "tick-box" items and short answers to encourage participants to express themselves in their own words.

Survivor distress

Although bereaved individuals may find that research participation triggers painful memories, most report that participation is enriching, therapeutic, and empowering (e.g., Cook & Bosley, 1995; K. Dyregrov, 2004). It was recently found that individuals with PTSD who felt distressed on completion of a trauma survey, still reported benefits from participation and did not regret their involvement (Ferrier-Auerbach, Erbes, & Polusny, 2009). Several strategies were implemented to reduce the risk of distress for all participants. A resource sheet (Appendix C, p 181) accompanied the information sheet (Appendix C, p178) and questionnaire, listing self-care strategies and contact details for national support services appropriate to bereaved or traumatised individuals. Resource sheets were personalised for each of the three samples, for example the police and VS versions encouraged participants to also use the support available to them within their respective organisations. A dedicated toll-free phone number was listed on the information sheet for contacting the researcher if participants had questions about the study or sought referrals to support agencies. Fifteen survivors called the line during the three months it was operational. Most were regarding questions or comments about the study; one was from a survivor saying she was too distressed to participate; none was in relation to a referral.

Cultural considerations

It is acknowledged that Maori may have a different view of, and response to, death from European (Pakeha) New Zealanders and Westerners, and that Maori may prefer to share their experiences face-to-face, rather than via questionnaire. Many of the measures in this study were developed in North America and may not adequately capture the Maori response to death and trauma. Moreover, it is recognised that a power imbalance exists between Maori and Pakeha, with Maori often marginalised socially, politically, and culturally (Durie, 1997). This imbalance may be accentuated at the time of a death (Tipene-Leach, Abel, Everard, & Haretuku, 2000) when Maori must deal with Pakeha-developed protocols, including contact with agencies such as police and VS, which have a predominantly Pakeha membership. The researcher worked closely with senior

members of the Maori community, Maori representatives of the police and VS, and Maori psychologists to limit any power imbalance portrayed in this study. Strategies included an introduction written in Maori language on the survivors' information sheets and support available to Maori participants from Maori psychologists if required.

Anonymity and confidentiality

All participants were informed that participation was voluntary, that they were not obliged to answer every question, and that they could request that their contact details be withheld from the researcher if they did not wish to be sent a questionnaire. They were informed that their contact details would be kept in a password-secured computer file, accessible only to the researcher, and would be destroyed after being sent a summary of the findings on completion of the project. It was emphasised that all returned questionnaires would be treated anonymously: participants' names would not appear on the questionnaire and instead all completed questionnaires would be given a code when returned. Participants were reassured that demographic questions were asked only for statistical purposes and that the aim of statistical analyses was to make comparisons between groups, not between individuals. Consent was by returning the completed questionnaire.

SURVIVOR STUDY

4.2 Participants

The participants in this study were a sample of 400 individuals who experienced the sudden death of a close family member or friend two to three years prior in 2004 or 2005. Participants were randomly selected from a population of 4422 individuals who met certain criteria, as recorded on the VS database. The database contains a record of all face-to-face and telephone interactions with clients, including the nature of the incident, demographic details and contact details of the client, the name of the volunteer who assisted, and the type of assistance provided. A developer from Intergen, the company that maintains the database, was instructed to generate a random sample of 400 survivors who had contact with VS in relation to a sudden death between 1 January, 2004 and 30 June, 2005. Intergen has a confidentiality agreement with VS and was chosen for this task because the search criteria were beyond the capabilities of the database version available to VS staff. Sudden death covered all deaths recorded under

the categories of sudden death, accidental death (farm, boat, train, air, fire), motor vehicle (fatal), suicide (completed), and homicide. Inclusion criteria were that participants must have received a police-referred face-to-face crisis callout in relation to a sudden death between those dates. Of the 4422 individuals who met these criteria, 565 were Maori. Participants were excluded if, at the time of contact with VS, they were under the age of 19, had no address in the database, or did not know the deceased personally. From this pool, two sub-samples were drawn using a computerised random sampling technique to provide a 400-strong sample: a sample of 300 non-Maori participants and a sample of 100 Maori participants. Maori were deliberately over-sampled to allow for sufficient data for meaningful analysis.

All 400 participants were then sent an introductory letter from VS informing them of the upcoming study and that if they did not wish to receive a questionnaire, they could contact the VS national office to have their name withdrawn (see Appendix B, p 177). At this point, 12 participants chose to exclude themselves. Questionnaires were sent to the remaining 388 participants and, following a reminder postcard two weeks later, 125 were completed and returned, giving a final response rate of 32%. Of these, 85 (68%) were female; the average age was 53.22 (SD = 15.19); 84% were New Zealand Pakeha/European; and 6.4% were Maori.[3] A full description of participant demographics is shown in Table 5.1 in the results section (p 51).

4.3 Measures and Questionnaire

The survivor questionnaire contained 179 items and is included in Appendix D. It was pilot tested and reviewed by several VS workers, grief counsellors and educators, Maori advisors, and recently-bereaved colleagues of the researcher. Following feedback, the questionnaire was modified to include clearer and more gradual instructions so that survivors were better prepared for the sensitive topics it contained. No changes were made to the standardised measures.

[3] Maori comprise 14.6% of the New Zealand population (Statistics New Zealand, 2006).

Demographic items

Participants were asked to identify their gender, age, ethnicity, marital status, religion/faith, educational qualifications, employment status, income, and whether they lived in a rural or urban area.

Experience of sudden death

Participants were asked about the death of a close family member or friend in 2004 or 2005, including their relationship to the person who died, the age of the deceased, the cause of death, and their exposure to the death (e.g., whether they were involved in the accident in which the person died or discovered the body). They were also asked about the death notification (e.g., how they learnt of the death, who informed them, whether they had anyone present at the time of the notification); and, if they viewed the person's body, the circumstances of the viewing (e.g., whether they formally identified the body, saw photos of the body), and whether they regretted seeing or not seeing the body. Finally, participants indicated the nature and approximate number of hours of contact they had with police and VS in relation to the death.

Interactions with first responders: I CARE

The I CARE scale was developed for this study to measure the extent to which survivors felt first responders engaged in actions reported to be helpful in the immediate aftermath (survivor version) and the extent to which first responders believed they engaged in those actions (first responder version). The aim was to develop one set of items, taken from the initial pool of 26 in this study, that were relevant to survivors, police, and VS workers so that the scale could be used across similar populations in future research.

Survivor participants completed a Likert scale of 26 items relating to the extent to which the police and VS engaged in specific actions and attitudes immediately after the death, on a 5-point scale from 0 (not at all) to 4 (very much) or not applicable (NA). Items were based on actions and attitudes that were consistently identified in studies as most important by sudden death survivors, such as survivors' ratings of the helpfulness of specific actions by hospital emergency department staff (Fraser & Atkins, 1990; Jurkovich, et al., 2000; Li, et al., 2002; Parrish, et al., 1987; Redley, LeVasseur, Peters, & Bethune, 2003); survivors' own examples of what was helpful after a loved one's

accidental death (D. R. Lehman, et al., 1986); interviews with survivors about their perceptions of professionals who assisted them after their child's death (Janzen et al., 2004); and a survey of emergency department nurses on what they perceived to be helpful to sudden death survivors (Tye, 1993). The items were then reviewed by a panel of New Zealand grief counsellors and educators and grouped into one of the five categories forming the acronym I CARE: Information (e.g., *Did they provide information about grief / how to cope with death?*); Control (e.g. *Did they encourage family and friends of the person who died to make their own decisions?*); Accept (e.g., *Did they advise family and friends not to see the body of the person who died?)*; React (e.g., *Did they allow family and friends of the person who died to express their emotions?*); and Empathy (e.g., *Did they show concern and caring for people of all ages connected to the person who died?*). Participants rated each item separately in relation to both the police and VS. In the first responder questionnaires, police officers and VS workers indicated the extent to which they engaged in the same 26 strategies with the survivor following the sudden death.

Additionally, survivors rated the overall helpfulness of the police and VS around the time of the person's death on a scale of 0 (not at all helpful) to 4 (very helpful). They were then given space to comment in their own words, any type of support that they did not receive from each of the police and VS that would have been helpful in the immediate aftermath or in the longer term.

Selection of final items

In selecting the final I CARE items, the aims were to: 1) include at least two items from each of the I CARE categories: Information, Control, Accept, React, and Empathy; and 2) include only items that were relevant to both the survivors and first responders. Differences in the circumstances of the death and the roles of police and VS meant that some items were not appropriate across samples.

First, Scores for the 10 negatively-worded items (items 6, 7, 12, 15, 16, 17, 19, 20, 21, 23) were reversed. Next, eight items were eliminated using a combination of excluding the most common NA responses across the four scales and the lowest loading items as shown in a principal component analysis (varimax rotation). A comparison of the 10 highest loadings of the remaining 18 items in each version showed an 80% match across

versions, confirming that this was an appropriate method of selecting items with relevance to both survivors and first responders. Finally, it was ensured that the scale included at least two items representing each of the I CARE categories. The final 18 items are shown in Table 4.1.

Table 4.1 *Final 18 items in I CARE scale*

Information
Provide information about grief/how to cope with death
Provide or obtain information about what formalities would happen next or what to do next
Ensure follow-up support available
Provide contact details for further information/help
Speak using words or terminology that were difficult to understand (reversed)
Control
Encourage making own decisions
Demonstrate helpfulness without being intrusive
Accept
Express condolences
Do or say things to make loss seem less significant (reversed)
Advise family/friends not to see the body (reversed)
Remind family/friends that things could be worse (reversed)
React
Prevent family/friends from talking about the death (reversed)
Tell family/friends that death was for the best (reversed)
Do or say things to prevent family/friends from getting upset (reversed)
Empathy
Show concern and caring for all ages
Demonstrate insensitivity/lack of understanding (reversed)
Spend time with family/friends in unhurried manner
Listen to family/friends of the person who died

Peritraumatic distress

The Peritraumatic Distress Inventory (PDI; Brunet et al., 2001) was used to measure the distress survivors experienced during and immediately after the time of the person's death. The PDI was developed to measure an individual's subjective response during and immediately after a traumatic event. The DSM-IV's criterion A2 for PTSD

requires that an individual's initial response to the traumatic event involves intense fear, helplessness, or horror (American Psychiatric Association, 1994). The PDI asks participants to rate 13 items, including fear, helplessness, and horror, on a 5-point scale from 0 (not at all true) to 4 (extremely true). However, an advantage of the PDI is that it also measures other types of emotional distress and physiological arousal common among trauma victims, such as perceived life threat, guilt, loss of bowel and bladder control, shame and anger. PDI scores are the mean across all items.

The PDI was originally tested with police officers who had attended a critical incident (mean time since most distressing incident 6.64 years (SD = 5.16)) and a civilian comparison group who were exposed to a variety of traumatic events (mean time since most distressing incident 8.83 years (SD = 6.50)). Psychometric properties indicate the PDI is suitable for a range of individuals and events, with internal consistencies of alpha = .75 for the police and .76 for the civilians, and a test-retest reliability of .74 among police officers an average of 391 days later (Brunet et al., 2001). The PDI has good convergent validity with measures of peritraumatic dissociation (r = .59) and PTSD (ranging from r = .42 to r = .47); and divergent validity with social support (r = .11), physical health (r = .15), and time since the critical incident (r = .03) (Brunet et al., 2001). Brunet et al. found PDI scores remained significantly correlated with PTSD scores even after controlling for current distress (r = 0.24 to r = 0.53) and peritraumatic dissociation, which is a robust predictor of PTSD (Ozer, et al., 2003) (r = .026 to r = .034). Although it is acknowledged that the PDI is a retrospective measure, there is ample evidence suggesting that retrospective recall of traumatic distress is largely accurate (Shalev, Peri, Canetti, & Schreiber, 1996) and that memory may even be enhanced during the peritraumatic period (e.g., Cahill & McGaugh, 1995; Heuer & Reisberg, 1990; Pitman, 1989).

An initial factor analysis showed that the PDI has two factors (negative emotions and perceived life threat / bodily arousal) (Brunet et al., 2001), however a subsequent study using New Yorkers exposed to the September 11 terrorist attacks found items could be grouped into four factors (life threat, loss of control helplessness/anger, and guilt/shame) (Simeon et al., 2003). As such, the PDI currently has no confirmed factor structure or cut-off point for severe peritraumatic distress.

Posttraumatic stress disorder

Posttraumatic stress symptoms were measured with the 22-item Impact of Event Scale-Revised (IES-R; Weiss & Marmar, 1997). This was chosen because it is often used with both first responder populations (e.g., Cetin, et al., 2005), and bereaved populations alongside the Inventory of Complicated Grief (e.g., K. Dyregrov, et al., 2003), and is shorter than other common PTSD measures, such as the 49-item Posttraumatic Stress Diagnostic Scale (PSD; Foa, 1995) and the 39-item Civilian Version of the Mississippi Scale for Post-Traumatic Stress Disorder (M-PTSD civ; Keane, Caddell, & Taylor, 1988). The IES-R contains the original seven intrusion/reexperiencing items and eight avoidance items of the Impact of Event Scale (IES; Horowitz, Wilner, & Alvarez, 1979), with seven new items measuring hyperarousal, which is now recognised as one of the three symptom clusters in the DSM-IV PTSD criteria. Participants are asked how distressed or bothered they were by each of the symptoms in the last seven days in relation to the traumatic event - in this case, the person's sudden death - on a 5-point scale from 0 (not at all) to 4 (extremely). Scores can be given for each for the three subscales of Intrusion, Avoidance, and Hyperarousal, and for the total score (sum of each subscale).

Sound psychometric properties have been reported in various studies using the IES-R (Weiss, 2004), for example, Weiss and Marmar (1997) found Cronbach's alphas representing internal consistency ranging from .87 to .92 for Intrusion, .84 to .86 for Avoidance, and .79 to .90 for Hyperarousal. Test-retest reliability coefficients were as follows: Intrusion = .54 to .94, Avoidance = .51 to .89, and Hyperarousal = .59 to .92 (Weiss & Marmar, 1997). The IES-R subscales also have good predictive, content, and construct validity (Horowitz, et al., 1979; Weiss & Marmar, 1997).

Weiss (2004) notes that the IES-R is designed to assess symptoms rather than diagnose PTSD, and that, because of differences in comparing different populations, events, and time frames, there are no cut-off scores or normative data for the measure. For these reasons, the IES-R was used as a continuous measure of PTSD symptoms in this study.

Complicated grief

The 19-item Inventory of Complicated Grief (ICG; Prigerson et al., 1995) was used to assess complicated grief. The ICG was chosen over the newer 32-item Inventory of

Complicated Grief-Revised (ICG-R; Prigerson & Jacobs, 2001b) because it is shorter and remains the most common measure of complicated grief (Melhem et al., 2004), thus allowing for comparability with previous relevant studies (e.g., Dyregrov et al., 2003; Spooren et al., 2000).[4] The main differences between the original and revised ICG versions are that the new version no longer includes items measuring avoidance of reminders of the deceased or difficulty imagining a fulfilling life without the deceased, both of which have been deemed poor markers of CG (Prigerson & Jacobs, 2001). However, avoidance symptoms have been reinstated among the revised prolonged grief disorder criteria proposed for the DSM-V (Prigerson, Vanderwerker, & Maciejewki, 2007).

Participants are asked to report the frequency on a 5-point scale (0 = never to 4 = always) with which they are currently experiencing symptoms of complicated grief. Although there are two main symptom clusters of complicated grief - separation distress and traumatic distress - these load on to a single factor on the ICG (Prigerson et al., 1995). The ICG has been criticised for being developed on an elderly conjugally bereaved sample (Neimeyer & Hogan, 2001), however it has shown high internal consistency (Cronbach's alpha of at least .93) among a variety of bereaved populations including the original population (Prigerson et al., 1995), young adults whose close friend died from suicide (Prigerson et al., 1999), and parents whose child died in an accident (Spooren, et al., 2000). The test-retest reliability among the original widowed sample was r = .80 at 6 months (Prigerson et al., 1995). The original study also showed that the ICG has high convergent validity (r = .87) with the second part (present feelings) of the Texas Revised Inventory of Grief (TRIG; Faschingbauer, Zisook, & DeVaul, 1987), a common measure of "normal" grief. However, the ICG better discriminates between individuals with poor social and role functioning associated with complicated grief than the TRIG (Prigerson et al., 1995). This study also showed that the ICG has a convergent validity of r = .67 with the Beck Depression Inventory (BDI; Beck & Steer, 1987).

Most researchers have used a cut-off of 25 on the ICG to distinguish complicated from normal grief. This is recommended by Prigerson et al. (1995) who found that

[4] Prigerson and colleagues are currently developing another 12-item Inventory of Complicated Grief-Revised (Prigerson, Vanderwerker, & Maciejewski, in press).

individuals scoring above 25 had significantly more functional impairment; and that this group of individuals also represented 20% of the sample, which was consistent with previous studies suggesting that 20% of bereaved individuals experienced maladaptive bereavement. However, some researchers have used a higher cut-off, presumably to be on the conservative side (e.g., Ott (2003) used a cut-off of 32, while Spooren et al. (2000) used 37).

Current distress

The 21-item Hopkins Symptom Checklist-21 (HSCL-21; Green, Walkey, McCormick, & Taylor, 1988) was chosen to measure current psychological distress, as a way of controlling for distress related to circumstances other than the sudden death. The HSCL-21 was appealing because of its brevity, strong psychometric properties, and the fact that it was developed and tested on New Zealand participants. The checklist was adapted from the original self-report 58-item Hopkins Symptom Checklist (HSCL; Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974) for the purpose of producing a shorter but acceptably reliable version of the scale. The 21 items were selected from factor analyses conducted on data from several independent groups who had completed the HSCL-58, including American anxious neurotic patients, New Zealand female nurses, and New Zealand university students; and were evaluated on another sample of New Zealand university students (Green et al., 1988).

The HSCL-21 asks participants how distressing they have found each symptom on a 5-point scale (0 = not at all to 4 = extremely) in the past seven days, including today. The symptoms comprise three factors: General Feelings of Distress; Somatic Distress, and Performance Difficulty; the sum of which can be used to measure total distress. The scale has high internal consistency: the total distress score has a split-half reliability of .91 and an alpha coefficient of .90, while the subscales have split-halves ranging from .80 to .89 and alpha coefficients from .75 to .86 (Green et al., 1988). Another New Zealand study found comparable reliability (Deane, Leathem, & Spicer, 1992).

Coping

The coping section was intended to encourage self-reflection and personalisation of the questionnaire. Participants were asked to describe in their own words three things that most helped them deal with the death. They were encouraged to be as honest as

possible and were told these may include anything from counselling, drinking to take their mind off it, to praying. This self-generated approach was chosen over established coping scales to give participants a sense of control during completion of the questionnaire, to allow them a break from the standardised measures, and for economy. For example, the Ways of Coping (WOC; Folkman & Lazarus, 1988) has 67 items and even the Brief COPE (Carver, 1997) has 28 items.

Prior trauma history

Lifetime exposure to traumatic events

Previous exposure to one or more traumatic events is a robust risk factor for PTSD (Norris, 1990, 1992; Ozer, et al., 2003), thus it was important to control for the effects of prior trauma history. One of the most widely-used measures of trauma exposure is the Traumatic Stress Schedule (TSS; Norris, 1990, 1992), developed to assess the frequency of traumatic events in the general population. The current study used a nine-item version of the TSS commonly used by Stephens and other New Zealand researchers (e.g., Huddleston, Stephens, & Paton, 2007; Stephens & Miller, 1998) to assess participants' lifetime exposure to nine traumatic events: combat, robbery, physical assault, sexual assault, fire, natural/human-made disaster, tragic death (other than the one about which the questionnaire has been answered), motor vehicle crash, and other experience. The benefit of this version for the current study was that it may be used with the above 9-items in the general population or as part of a 16-item measure of exposure to traumatic events in the police force.

Stephens' general population version differs slightly from the most recent 10-item version of the TSS (Norris, 1992), also used in research with New Zealand police (Buchanan, Stephens, & Long, 2001), in that 1), the physical assault item is worded *Have you ever been assaulted, injured or had your life placed under threat by another person?*, while Norris' version asks *Did anyone ever beat you up or attack you?*; and 2), Stephens has incorporated Norris' "other hazard" item (*Were you ever forced to evacuate from your home or did you otherwise learn of an imminent hazard or danger in your environment?*) into the item covering natural/human-made disaster (*Did you ever suffer injury, evacuation, or property damage because of severe weather or either a natural or man-made disaster?*). To maintain consistency across items, the wording was changed in the current study from *Did you...?* to *Have you...?* To control for the

effects of time, participants could respond *No*; *Yes, in the last 12 months*; or *Yes, more than 12 months ago.*

Another 12-item version of the TSS has also been trialled in New Zealand (Flett, Kazantzis, Long, MacDonald, & Millar, 2004), however it has not been used on police officers, thus was considered less economical and relevant than the 9-item Stephens version. While no psychometric properties are available for the Stephens version, it is important to remember that it is almost identical to Norris' latest version, which has an internal consistency of alpha = .75 (Norris, 1992) and stable frequencies of exposure to one or more traumatic events across samples (Norris & Hamblen, 2004).

Trauma resolution

Additionally, participants were asked to nominate which of the nine TSS events was the most traumatic for them and then answer four items designed to assess the extent to which they considered that this event was now resolved for them. Preliminary research indicates that it is not a trauma history *per se* that is a risk for traumatic stress, but whether the trauma remains "unresolved" (Hargrave, Scott, & McDowall, 2006). In Hargrave et al.'s study with VS volunteer workers, participants were asked whether they considered a previous traumatic event to be *resolved*, *part-resolved*, or *non-resolved*. To further investigate the effects of trauma resolution, it was decided that a Likert-type scale would provide more reliable data. Rather than developing a new scale for this purpose, a modification of the four-item Resolution-Acceptance subscale of the Cognitive Processing of Trauma Scale (C-POTS; Williams, Davis, & Millsap, 2002) was used. One definition of trauma resolution is that the traumatic event has been "processed", and thus accepted both cognitively and emotionally (Bryant, Moulds, & Guthrie, 2000; Williams, Davis, & Millsap, 2002). While the C-POTS is relatively new and has not been widely used, the Resolution-Acceptance subscale was thought to adequately cover this definition of trauma resolution and has had the advantage of being psychometrically tested. The subscale has internal consistency of Cronbach's alpha = .81 (Williams et al., 2002) but since the factor loadings for each of the items varied from .35 to .96, the item with the lowest factor loading *(I have figured out how to cope)* was dropped. It was replaced with *It's distressing for me to think about it*, because an indicator that processing has occurred is that an individual can face "probes", such as talking about the event or being reminded of it, without distress (Rachman, 1980).

4.4 Procedure

VS national office sent an introductory letter to participants informing them that their name had been randomly selected from the database for the study and that, unless they notified the national office by phone or email, the researcher would send them a questionnaire pack. Two weeks after this initial letter, the researcher sent all participants who had not excluded themselves from the study (n = 388) an envelope containing the information sheet, questionnaire, resource sheet, and a return postage-paid envelope. Two weeks after this, the researcher sent all participants a postcard thanking those who had returned their questionnaire and reminding those who had not to return theirs soon (see Appendix E, p 199).

CHAPTER 5:
RESULTS

Chapter overview

This chapter is divided into two sections: 1) descriptive and background statistics, and 2) hypothesis testing analyses. The Statistical Package for the Social Sciences (SPSS) Graduate Pack 15.0 was used for data analyses. All correlational analyses are Pearson's, two-tailed, unless specified otherwise. Due to the number of variables, only differences significant at $p < .01$ are reported in the descriptive and background analyses, unless otherwise stated. All the measures were normally distributed. No alterations were made to the data, hence any outliers were retained and missing data were recorded as such.

5.1 Descriptive and Background Analyses

5.1.1 CONTROL VARIABLES

It is acknowledged that retrospective ratings of distress may be influenced by lifetime trauma and recent trauma, time since the death, and general psychological distress at the time of completing the questionnaire. However, the only variable among these that moderately correlated with outcome measures was current psychological distress (HSCL-21), which was related to each key variable (peritraumatic distress, PTSD, and CG), as shown in Table 5.6 (p 60). HSCL scores ranged from 21 to 84 ($M = 34.86$, $SD = 13.62$). The Cronbach's alpha reliability was .95.

5.1.2 PRE-EVENT VARIABLES

Demographic variables

As shown in Table 5.1 (p 51), the survivor participants were mostly female (68.0%) New Zealand Europeans (84.0%), aged from 21 to 95 years old ($M = 55.22$, $SD = 15.19$). Most were married or living with a partner (60.0%), Christian (53.3%), and lived in a city (59.3%). The majority had no tertiary qualification (59.4%). Most participants worked fulltime (44.4%) and earned an income between $15,001-$30,000 (26.3%)

Table 5.1 *Summary of demographic information of survivors (n = 125)*

	n	%
Gender		
Male	40	32.0
Female	**85**	**68.0**
Age		
Mean (SD)	53.22	(15.19)
Ethnicity		
NZ European	**105**	**84.0**
Maori	8	6.4
Pacific Island	2	1.6
Chinese	2	1.6
Indian	2	1.6
Other	6	4.8
Marital Status		
Married/living with partner	**75**	**60.0**
In relationship but not living together	3	2.4
Single	12	9.6
Separated/divorced	6	4.8
Widowed	29	23.2
Religion		
None	25	20.8
Personal spiritual beliefs	25	20.8
Christian	**64**	**53.3**
Jewish	2	1.6
Buddhist	1	0.8
Other	3	2.5
Highest Educational Qualification		
None	30	24.4
School Cert/ 6th Form Cert/Bursary	**43**	**35.0**
Trade/prof cert	21	17.1
Bachelor degree	14	11.4
Postgraduate	15	12.2
Location		
City	**73**	**59.3**
Rural/provincial town	50	40.7
Employment		
Full-time	**55**	**44.4**
Part-time	25	20.2
Retired	24	19.4
Unemployed/beneficiary	8	6.5
Homemaker	10	8.1
Student	2	1.6
Annual income		
$0-$15,000	18	15.8
$15,001-$30,000	**30**	**26.3**
$30,001-$45,000	29	25.4
$45,001-$60,000	15	13.2
$60,001-$75,000	9	7.9
$75,001+	13	11.4

Note: Highest figures in each group are displayed in bold

Trauma history

Of the survivors, 80.3% had experienced at least one of the nine TSS traumatic events (other than the death for which they answered questions about in this study) in their lifetime and 15.6% had experienced an event in the last 12 months (see Table 5.2). The most common lifetime traumatic event was "other" (43.9%), for which examples included severe injury, illness, or death of family members from causes not covered in the TSS.

Two scores were computed for the TSS based on the number of traumatic events each participant had experienced in their lifetime and in the last 12 months. Scores for lifetime trauma ranged from 0 to 8 (M = 1.94, SD = 1.67) and from 0 to 2 (M = 0.16, SD = 0.39) for trauma in the last 12 months. Trauma was unrelated to any demographic variables or key dependent variables (PDI, IES-R, or ICG).

Table 5.2 *Traumatic events experienced by survivors for 9-item TSS*

Event	% ever experienced	% in last 12 months	% rated as most distressing (n= 94)
Military combat	2.4	0.0	2.1
Robbery/mugging/holdup	10.5	0.8	3.2
Assault	27.4	1.6	10.6
Sexual abuse	19.5	0.0	8.5
Injury or loss by fire	12.1	0.0	2.1
Injury or loss by disaster	13.7	3.2	4.3
Family/friend sudden death	40.3	5.6	21.3
Motor vehicle accident	22.6	0.0	7.4
Other	**43.9**	**5.7**	**40.4**

Note: Highest figures in each group are displayed in bold

Trauma resolution

Participants nominated the most distressing event they had experienced out of those listed in the TSS and were measured on the degree of resolution they now felt in relation to this event. Trauma resolution scores were the sum of responses to the four items on a four-point scale, with the final item reversed. The most common "most distressing" event for survivors was "other", experienced by 40.4% (see Table 5.2), although this was unrelated to trauma resolution. Resolution was associated with lower

scores on the PDI (r = -.21, p <.05), IES-R (r = -.24), and ICG (r = -.34), as well as lower use of avoidant coping strategies (r = -.24, p <.05). Scores ranged from 0 to 16, with a mean of 11.02 (SD = 4.15). The scale had a reliability of alpha = .83.

5.1.3 PERI-EVENT VARIABLES

This section describes the nature of the sudden death case for which this study is based. Data gathered included variables relating to the deceased person, the circumstances of the death, and first responders' interactions with the survivor in the immediate aftermath.

Variables relating to the deceased and circumstances of the death

Completion of the questionnaire ranged from 24 to 39 months (M= 28.37 months, SD = 3.12) after the death. As shown in Table 5.3 (p 54), nearly three-quarters of the participants (74.4%) were the immediate family members of the deceased (parents, children, spouse, or sibling), the majority of whom were parents whose child had died suddenly (30.4%). Most of the deaths (61.3%) could be classified as "violent" (suicide, homicide, accident), however the most common individual cause of death overall was health-related (31.5%). The ages of deceased ranged from 3 months to 93 years (M = 42.95, SD = 24.16), mostly in the age group of 20 to 29 years (18.5%). Violent death was inversely related to age of the deceased (r = -.42) and survivor age (r = -.29), however, the relationship between survivor age and violent death was non-significant when controlling for age of deceased. Violent death was also related to peritraumatic distress (r =.32).

Of the survivors, 8% experienced the deaths of more than one person in the incident they described in the questionnaire and 2.4% were directly involved in the fatal incident (e.g., injured or escaped death in the incident). Data were also collected relating to any arrest made, the death notification, and body viewing. However, as these were unrelated to any key variables and therefore excluded from subsequent analyses, for economy reasons, they are not reported.

Table 5.3 *Summary of variables relating to the deceased*

	n	%
Relationship to deceased		
Parent	**38**	**30.4**
Child	22	17.6
Spouse/partner	24	19.2
Sibling	9	7.2
Other family	13	10.4
Friend	8	6.4
Neighbour	6	4.8
Other	5	3.7
Cause of death		
Non-Violent	48	38.7
Health-related	**39**	**31.5**
Sudden infant death (SIDS)	2	1.6
Unknown causes	6	4.8
Other	1	0.8
Violent	76	61.3
Suicide	29	23.4
Homicide / Manslaughter	4	3.2
Transport / road accident	29	23.4
Other accident	14	11.3
Deceased's age (years)		
0-9	10	8.1
10-19	11	8.8
20-29	**23**	**18.5**
30-39	15	12.1
40-49	15	12.1
50-59	16	12.9
60-69	8	6.5
70-79	9	7.3
80+	13	10.5
Mean (SD)	42.95	(24.16)
Multiple deaths		
No	**115**	**92.0**
Yes	10	8.0
Directly involved		
No	**122**	**97.6**
Yes	3	2.4

Note: Highest figures in each group are displayed in bold

First responder support

Type of support

The most frequent type of contact survivors had with the police was at the scene of the death (44.4%), while for VS it was general support after the death (63.7%). The amount of time survivors had contact with both police and VS ranged from 10 minutes to 25 hours, with an average of 3.26 hours (SD = 4.58) with police and 2.75 hours (SD = 3.74) with VS. Those whose loved one died from a violent death were more likely to spend longer with both police (r = .26) and VS (r = .27).

I CARE scale

There were no significant differences between survivors' ratings of police and VS actions (the mean score across items, excluding NA items, was 2.87, SD = .65 for police vs 2.90, SD = .74 for VS). Thus, for economy, the survivors' scores for VS and police were combined, using the mean for each item. Given that 20.7% of responses across both the survivor and first responder versions of the scale were still not applicable, scores were calculated as the mean score of *endorsed* items for each participant with NAs excluded. This gave a mean of 3.10 (SD = .54) for survivors, with a reliability of α = .71. The range was 1.50 to 4.00, with higher scores indicating higher ratings of first responder helpfulness.

The action that survivors most frequently endorsed (rated at least *a little bit*) was *spend time with you in an unhurried manner* (66.9%). The support strategy perceived to be the least forthcoming was *demonstrate helpfulness without being intrusive* (42.6%). I CARE was inversely related to peritraumatic distress (r = -.25) and positively related to overall first responder helpfulness (r = .45).

This scale was not factor analysed because its total is combined with the totals of the other two measures of first responder support to form a composite measure, which will be used in the hypothesis testing analyses.

Overall helpfulness

Survivors were asked to rate first responders' overall helpfulness on a scale of 0 to 4 for both police and VS. The mean rating for police was 3.03 (SD = 1.18) and for VS 2.93 (SD = 1.34), which was not significantly different. For VS, more hours were related to higher ratings of overall help (r = .34). A total was also computed for combined overall helpfulness of police and VS (M = 5.93, SD = 1.96). Overall combined helpfulness was positively related to I CARE (r = .45), and negatively related to complaints about first responders (r = -.27), and peritraumatic distress (r = -.23, $p < .05$). Subsequent analyses use the combined helpfulness score.

Comments about first responders' support

Participants were asked to comment if there was anything that first responders could have done to help that they did not do (see Appendix F, p 200). A total of 26 survivors

made comments about police in this section: 18 commented on things that police did that were unhelpful or that they could have done better (complaints), and 8 mentioned the helpful things that police did (positive comments). There were 35 participants who made comments relating to VS: 20 made complaints (7 of whom also made a complaint about police) and 15 gave positive comments. In total, 32 participants (25.8%) made a complaint about the police, VS, or both. Four main themes emerged among the complaints, which were grouped into one or more of these categories: insensitivity/intrusion (n = 14), lack of information/communication (n = 13), lack of follow-up support (n = 9), and unhelpfulness (n = 9).

Those who made a complaint about either first responder group were more likely to be have had the police involved in the investigation or coroner's court (both r = .31). Neither positive nor negative police comments had any relationship to the amount or type of police support that participants received. Positive comments about VS were related to the number of hours VS workers engaged with survivors (r = .25). Subsequent analyses use complaints relating to either first responder group (complaints relating to police and VS combined; n = 32), which was inversely related to overall combined helpfulness (r = -.27).

Composite measure of first responder support

Given there were no significant differences between survivors' ratings of police and VS support, to reduce the number of independent variables entered in regression equations the combined totals (police and VS) for each of the three measures of first responder support were combined in a composite measure. Each was weighted out of 10, with the first responder complaint scores reversed so that higher scores equated to higher perceived support. Out of a possible score of 30, the range was 9.25 to 30.00 (M = 22.68, SD = 6.20). Reliability was $\alpha = .92$. Lower composite support was related to being an immediate family member of the deceased (r = -.25), peritraumatic distress (r = -.31), and symptoms of PTSD (r = -.20, $p < .05$) and CG (r = -.29).

Peritraumatic distress

PDI scores ranged from 0 to 4 (M = 1.51, SD = .75) and the scale had a reliability of $\alpha = .82$. The most frequently endorsed item (*slightly true* and above) was *I felt sadness and grief* (99.2%). Although the PDI was related to violent death (r = .32), a one-way anova

showed no significant differences between the four types of violent death and peritraumatic distress [F (3, 71) = 2.46, p = .07]. The PDI was related to all first responder support measures: I CARE (r = -.25), combined overall helpfulness (r = -.23, p <.05), making a complaint (r = .25, p <.05), and composite support (r = -.31). Importantly, it was also associated with greater PTSD (r = .57) and CG symptoms (r = .55).

Relationships were also found for peritraumatic distress and current distress (r = .45), police hours (r = .25), survivor age (r = -.30), and deceased age (r = -.31). Although survivor and deceased age were related (r = .34), each was independently associated with the PDI when controlling for the other (r = -.23, p <.05 for survivor age; r = -.20, p <.05 for deceased age). The relationship between violent death and peritraumatic distress was also independent of the age of the deceased (r = .21, p <.05) and age of the survivor (r = .24, p <.05).

5.1.4 POST-EVENT VARIABLES

Post-death support

Participants listed the three strategies (free-recall) that had most helped them cope with the death. These were grouped into eight categories as shown in Table 5.4 (p 58). The most common support strategy was help from family/friends (65.8%) and the least common was counselling (19.3%). Examples of "other" included the passage of time and help from other agencies or support groups. Survivors with higher peritraumatic distress were more likely to report the use of distraction/avoidance strategies (r = .34), while those with a spouse or in a relationship were more likely to find talking about the death helpful (r = .40).

5.1.5 TRAUMA AND GRIEF SYMPTOMS

Posttraumatic stress symptoms

The IES-R total ranged from 0 to 84 (M = 28.41, SD = 22.14). The scale reliability was α = .95. Totals were also computed for the three subscales, as shown in Table 5.5 (p 58), however, to minimise the number of analyses, only the IES-R total is used in subsequent analyses. IES-R scores were related to current distress (r = .59), peritraumatic distress (r = .57), any complaint about first responders (r = .20, p <.05), composite support (r = -.20, p <05), distractions/avoidance (r = .32), and CG (r =.71).

Table 5.4 *Helpful strategies following the death*

	n	%
Counselling	22	19.3
Family/friends	**75**	**65.8**
Religion/spirituality	29	25.4
Keeping deceased's memory alive	24	21.2
Talking about it	32	36.0
Distractions/avoidance	25	21.9
Own activities	27	23.7
Other	33	28.9

Note: Highest figures are displayed in bold

Table 5.5 *Descriptive statistics for IES-R and its subscales*

	n	M	SD	α
IES Total	118	28.41	22.14	.95
Intrusion	121	14.00	9.56	.93
Avoidance	121	9.07	8.16	.87
Hyperarousal	125	5.77	6.40	.88

Complicated grief symptoms

The ICG ranged from 0 to 72 (M = 22.42, SD = 16.74) and had a reliability of α = .94. Nearly half (43.0%) of participants scored above the cutoff of 25. CG was related to lack of trauma resolution (r = -.34), being an immediate family member of the deceased (r = .27), current distress (r = .64), any complaint about first responder support (r = .32), composite support (r = -.29), peritraumatic distress (r = .55), distractions/avoidance (r = .36), and PTSD symptoms (r = .71).

5.2 Hypothesis Testing

5.2.1 SELECTION OF VARIABLES FOR REGRESSION MODEL

The aim was to select a core group of variables that could be tested as a model in explaining the variance of peritraumatic distress, PTSD, and CG symptoms. Variable selection was based on 1) theoretical significance with these three dependent variables, as discussed in Chapter 4; and 2) strength of relationship with each of the three dependent variables in this study. Considering that trauma reactions are dependent on a combination of pre, peri and post-event factors (Schnurr, et al., 2002), at least one

variable was selected to represent pre, peri, and post-event factors. Correlations between the selected variables are shown in Table 5.6 (p 60) and their grouping for the steps of the multiple hierarchical regression analyses is shown in Table 5.7 (p 61).

Control variable

First, current distress was selected as a control variable in the first step as it was moderately to strongly correlated with each of the three dependent variables.

Pre-event variables

In the next step, the pre-event variables of trauma resolution and relationship to the deceased were entered. Although trauma history is generally considered a risk factor for PTSD and early childhood adversity a risk for CG, it was unrelated to the key variables, while trauma resolution was related to all three dependent variables. Being an immediate family member is a known risk factor for CG and was indeed related to CG. It was considered that the sense of threat may be greater when the survivor was a close family member of the deceased, thus it was also selected for the PDI and IES-R regressions. Given previous studies have shown female gender is related to peritraumatic distress, this was also entered in the second step, but only for the PDI. Likewise, younger survivor age was related to peritraumatic distress, so was included only in the PDI regression.

Peri-event variables

Violent death, peritraumatic distress (for PTSD and CG regressions), and the composite measure of first responder support were selected as peri-event variables in the model because each had an important theoretical role in this study. To ascertain unique contributions, violent death and first responder support were entered separately in the third step for the peritraumatic distress regression and peritraumatic distress was entered in the final step of the PTSD and CG regressions.

Post-event variable

Avoidant coping was the only post-event factor related to both PTSD and CG and was included in the second step (for PTSD and CG only).

Table 5.6 *Correlations between key survivor variables*

	Current distress	Gender	Survivor age	Trauma resolution	Relationship to deceased	Violent death	Peritraumatic distress	Composite first responder support	Avoidant coping	PTSD	CG
1	-	.06	-.04	-.22*	.13	.00	.45**	-.15	.29**	.59**	.64**
2		-	-.07	-.03	.03	-.12	.02	-.11	-.04	.04	.02
3			-	.15	-.16	-.29**	-.20	.11	-.19	-.12	-.18
4				-	-.08	.03	-.21*	.10	-.24*	-.24*	-.34**
5					-	-.08	.08	-.25**	.02	.17	.27**
6						-	.32**	-.08	.17	.11	.13
7							-	-.31**	.34**	.57**	.55**
8								-	-.16	-.20*	-.29**
9									-	.32**	.36**
10										-	.71**
11											-

*p <.05 **p < .01

Table 5.7 *Grouping of variables for hierarchical multiple regression.*

Step	Dependent Variable		
	PDI	IES-R	ICG
1	Control variable	Control variable	Control variable
	Current distress	Current distress	Current distress
2	Pre-event variables	Pre-event variables	Pre-event variables
	Gender	Trauma resolution	Trauma resolution
	Survivor age	Relationship to deceased	Relationship to deceased
	Trauma resolution	Peri-event variables	Peri-event variables
	Relationship to deceased	Violent death	Violent death
		First responder support	First responder support
		Post-event variable	Post-event variable
		Avoidant coping	Avoidant coping
3	Peri-event variables	Peri-event variable	Peri-event variable
	Violent death	Peritraumatic distress	Peritraumatic distress
	First responder support		

The final model consisted of seven variables for each regression, as shown in Table 5.7. According to the formula suggested by Tabachnick and Fidell (2001) ($N > 50 + 8m$, where m = number of independent variables), this is an acceptable number of predictors for regression.

5.2.3 HYPOTHESIS TESTING ANALYSES

Statistical significance was accepted at $p < .05$.

1) Peritraumatic distress (PDI) will be the strongest predictor of both posttraumatic stress (IES-R) and complicated grief (ICG) symptoms.

The PDI was positively correlated with the IES-R ($r = .57$, $p < .01$) and ICG ($r = .55$, $p < .01$). Because studies have shown overlap between PTSD and CG measures, these analyses were repeated while controlling for each. The relationships remained significant for PTSD symptoms when controlling for CG symptoms ($r = .35$, $p < .01$), and for CG when controlling for PTSD ($r = .25$, $p < .01$). This suggests that the

relationship between peritraumatic distress and PTSD is independent of any relationship between peritraumatic distress and CG, and vice-versa.

PTSD

As shown in Table 5.8, current distress explained 34.9% of the variance in IES-R scores. In step 2, the pre, peri, and post-event variables accounted for an additional 5.2% of the variance, with peritraumatic distress alone adding 8.3% in the final step. The final model explained 48.5% of variance in PTSD symptoms [F (7, 78) = 10.49, p <.01].

The strongest predictor was current distress (β = .38), followed closely by peritraumatic distress (β = .37). No other variables made significant predictions. Thus, hypothesis 1 was supported for PTSD symptoms after controlling for current distress.

Table 5.8 *Summary of hierarchical regression analysis for variables predicting posttraumatic stress symptoms in survivors showing standardised beta coefficients*

Variable	Step 1	Step 2	Step 3
Step 1			
Current distress	.59**	.52**	.38 **
Step 2			
Trauma resolution		-.09	-.05
Relationship to deceased		.08	.09
Violent death		.09	-.02
1st responder support		-.07	-.01
Avoidant coping		.12	.08
Step 3			
PDI			.37**
Total R	.59	.63	.70
Total R^2	.35	.40	.49
Adjusted R^2	.34	.36	.44
R^2 change	.35	.05	.08

* p <.05 **p <.01

CG

As shown in Table 5.9, current distress explained the majority of unique variance in complicated grief (40.4%). The pre, peri, and post-event variables added 12.4%, and peritraumatic distress accounted for a further 3.4% of the variance. The total model explained 56.2% of the variance in complicated grief scores F [(7, 78) = 14.32, p <.01].

The largest predictor was current distress (β = .44), however after controlling for this, peritraumatic distress was the next biggest predictor (β = .23), followed by being an immediate family member of the deceased (β = .16). A one-way anova showed no difference in ICG scores based on whether the survivor was the child, parent, spouse, or sibling of the deceased [F (3, 84) = .61, p = .61).

Table 5.9 *Summary of hierarchical regression analysis for variables predicting complicated grief symptoms in survivors showing standardised beta coefficients*

Variable	Step 1	Step 2	Step 3
Step 1			
Current distress	.64**	.52**	.44**
Step 2			
Trauma resolution		-.17*	-.15
Relationship to deceased		.16	.16*
Violent death		.12	.05
1st responder support		-.13	-.09
Avoidant coping		.12	.09
Step 3			
PDI			.23*
Total R	.64	.73	.75
Total R^2	.40	.53	.56
Adjusted R^2	.40	.49	.52
R^2 change	.40	.12	.03

*p <.05 **p <.01

Lack of trauma resolution predicted CG even when the peri-event variables were added (β = -.17) but was not a predictor in the final step. A partial correlation controlling for peritraumatic distress showed resolution and being an immediate family member were

each independently related to CG ($r = -.26$, $p < .05$; $r = .38$, $p < .01$) respectively. Hypothesis 1 was also supported for CG after controlling for current distress.

2) Violent death (homicide, suicide, accident) and lack of support from first responders (composite measure of I CARE, overall helpfulness, and complaints) will be the strongest predictors of peritraumatic distress (PDI).

In the first step (see Table 5.10), younger survivor age predicted PDI ($\beta = -.28$) but was no longer significant in the third step. The pre-event variables of gender, age, trauma resolution, and relationship to the deceased explained an additional 9.0%. Even when controlling for these, the peri-event variables of violent death and first responder composite support added a further 10.2% in variance and were each predictors of PDI ($\beta = .26$ for violent death and $\beta = -.20$ for lack of first responder support). Hence, the hypothesis that violent death and first responder support would be the strongest predictors of peritraumatic distress was supported after controlling for current distress.

Table 5.10 *Summary of hierarchical regression analysis for variables predicting peritraumatic distress in survivors showing standardised beta coefficients*

Variable	Step 1	Step 2	Step 3
Step 1			
Current distress	.45**	.41**	.39**
Step 2			
Gender		-.03	-.01
Age		-.28**	-.18
Trauma resolution		-.08	-.09
Relationship to deceased		.06	.01
Step 3			
Violent death			.26**
I st responder support			-.20*
Total R	.45	.54	.63
Total R^2	.20	.29	.39
Adjusted R^2	.19	.25	.34
R^2 change	.20	.09	.10

*p <.05 **p <.01

The total model explained 39.3% of the variance in PDI scores [F (7, 78) = 7.23 p <.01]. While a large amount of variance was attributed to current distress (20.2%), it's relationship with peritraumatic distress was no longer significant when controlling for symptoms of PTSD or CG. This indicates that current distress was only related to PDI due to its relationship with PTSD and CG and therefore did not directly affect survivors' recollections of peritraumatic distress.

3) First responder support will predict peritraumatic distress independent of whether the death was violent or not.

This hypothesis was tested using a multiple hierarchical regression, with violent death entered in the first step and first responder support in the second step. As shown in Table 5.11, after controlling for violent death, lack of first responder support still predicted peritraumatic distress (β = -.29), supporting the hypothesis that first responder support would be an independent predictor of PDI. In fact, its predictive power was very close to that of violent death in the final step (β = .30). Together, the two predictors explained 18.7% of the variance in PDI scores [F (2, 108) = 12.45, p <.01], with nearly half of this (8.4%) coming from first responder support alone.

Table 5.11 *Summary of hierarchical regression analysis for violent death and first responder support as predictors of peritraumatic distress in survivors showing standardised beta coefficients*

Variable	Step 1	Step 2
Step 1		
Violent death	.32**	.30**
Step 2		
1st responder support		-.29**
Total R	.32	.43
Total R^2	.10	.19
Adjusted R^2	.10	.17
R^2 change	.10	.08

*p <.05 **p <.01

4) **There will be a positive association between violent death and both PTSD and CG symptoms, which will be mediated by peritraumatic distress.**

Violent death was unrelated to either PTSD ($r = .11$, $p = .25$) or CG ($r = .13$, $p = .15$), thus a mediational analysis was unwarranted.

5) **There will be a negative relationship between first responder support (composite measure) and both PTSD and CG symptoms, which will be mediated by peritraumatic distress.**

The composite measure of first responder support (I CARE, overall helpfulness, complaints) was inversely related to PTSD ($r = -.20$, $p < .05$) and CG ($r = -.29$, $p < .01$) as expected. This allowed for the testing of the mediational model for PTSD and CG symptoms, which was done using regression analyses following the criteria of Baron and Kenny (1986) (see Table 5.12, p 67). All criteria were met: 1) the predictor variable (first responder support) must be significantly correlated with the dependent variable (PTSD and CG); 2) the predictor must be significantly related to the potential mediator (peritraumatic distress); and 3) the mediator must be significantly correlated with the outcome variable after controlling for the predictor variable. If the regression coefficient for the predictor variable becomes non-significant in this equation, full mediation has occurred; if it is significantly reduced, partial mediation has occurred. For both PTSD and CG symptoms, the predictor, first responder support, became non-significant when the mediator peritraumatic distress was entered as in the regression equation. This indicates full mediation but this must be confirmed with a fourth step.

The final step in testing mediation is to calculate a z-score, for which the significance determines whether the reduction in the regression coefficient between the first and third criterion steps is significant. This was done using Sobel's (1982) formula.[5] The calculations showed that $z = -3.11$, $p < .01$ for PTSD symptoms and $z = -3.00$, $p < .01$ for CG symptoms, confirming that full mediation has occurred in both cases and supporting the hypothesis that the relationship between first responder support and both PTSD and CG is mediated by peritraumatic distress.

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[5] $z = a*b / (b^2*s_a^2 + a^2*s_b^2)$ where a equals the unstandardised coefficient of the independent variable when predicting the mediator in the second criterion, and s equals its standard error, and b equals the unstandardised coefficient for the mediator in the third criterion, with s being its standard error.

Table 5.12 *Regression analyses testing the mediational role of peritraumatic distress in the relationship between first responder support and PTSD and CG.*

	β	t	Adjusted R^2	F (df)
Criterion 1: First responder support predicting PTSD and CG				
1st responder support				
PTSD	-.20	-2.14*	.03	4.56 (105)*
CG	-.29	-3.15**	.08	9.94 (106)**
Criterion 2: First responder support predicting peritraumatic distress				
1st responder support	-.31	-3.35**	.09	11.91 (109)**
Criterion 3: Peritraumatic distress and first responder support predicting PTSD and CG				
Peritraumatic distress				
PTSD	1.29	6.70**		
CG	.87	5.94**		
1st responder support				
PTSD	-.09	.30		
CG	-.36	.23		
PTSD			.32	25.69 (104)**
CG			.30	24.00 (105)**

*p <.05 **p <.01

5.2.3 SUMMARY OF HYPOTHESIS TESTING

The first hypothesis that peritraumatic distress will be the strongest predictor of PTSD and CG symptoms was supported.

The second hypothesis that violent death (homicide, suicide, accident) and lack of support from first responders (composite measure) will be the strongest predictors of peritraumatic distress was also supported.

The third hypothesis - that first responder support will predict peritraumatic distress, independent of whether the death was violent or not - was supported.

The fourth hypothesis was that there would be a positive relationship between violent death and symptoms of both PTSD and CG, which would be mediated by peritraumatic

distress. Violent death was unrelated to either PTSD or CG so the mediation could not be tested. Therefore, this hypothesis was not supported.

The fifth hypothesis was that there would be an inverse relationship between first responder support and both PTSD and CG symptoms, which would be mediated by peritraumatic distress. Both parts of this hypothesis were supported.

CHAPTER 6:
DISCUSSION

This study examined the impact of the peritraumatic period of sudden death on bereaved survivors. It focussed on the peri-event variables associated with symptoms of peritraumatic distress, posttraumatic stress, and complicated grief. The aims were to identify 1) the predictors of peritraumatic distress; and 2) the peri-event factors that influence PTSD and CG symptoms, especially the role of peritraumatic distress and first responder support.

This was the first known study to examine peritraumatic distress in sudden death survivors and in relation to CG. Results showed that being the survivor of a violent death (homicide, suicide, or accidental) and perceiving less support from first responders were independent predictors of peritraumatic distress. In turn, peritraumatic distress was the biggest predictor of both PTSD and CG after controlling for current distress.

6.1 Level of distress among survivors

Overall, survivors had comparable levels of immediate and long-term distress to similar populations. Peritraumatic distress scores (M = 1.51, SD = .75) were similar to those of civilians exposed to critical incidents in previous studies using the PDI, for example 1.52 (SD = .69) (Brunet, et al., 2001) and 1.42 for the "moderate" group in a study by Fikretoglu et al.(2006). The IES-R mean of 28.41 (SD = 22.14) for PTSD symptoms was lower than that of families bereaved by a plane crash (M = 47.23, SD = 18.20) (Johannesson, Stefanini, Lundun, & Anchisi, 2006) but similar to female college students who had experienced a traumatic loss (M = 27.72, SD = 25.38) (B. L. Green, et al., 2001). The prevalence rate of 43% for complicated grief (ICG) in this study was higher than a sample of adolescent friends of suicide victims (20%) (Prigerson, Bridge, et al., 1999), but lower than that of two studies of parents whose child died suddenly, which reported rates of CG above 70% (K. Dyregrov, et al., 2003; Prigerson, Bridge, et al., 1999; Spooren, et al., 2000). The mean HSCL-21 score for current psychological distress was 34.86 (SD = 13.62). This is similar to two non-clinical samples in New

Zealand studies: police recruits (M = 33.96, SD = 7.68) (Huddleston, Paton, & Stephens, 2006) and nurses (M = 35.58, SD = 8.52) (Deane et al., 1992).

6.2 Factors contributing to peritraumatic distress in the immediate aftermath

As hypothesised, violent death and lack of support from first responders were the strongest predictors of peritraumatic distress after controlling for current distress. Moreover, violent death and first responder support each independently predicted peritraumatic distress and together explained more additional variance in PDI scores than other the pre-event variables in the model (gender, age, trauma resolution, and relationship to deceased).

Little is known about peritraumatic distress risk factors other than several studies showing that it is higher among females (Breslau & Kessler, 2001; Brewin et al., 2000; Brunet et al., 2001; Creamer et al., 2005) and related to life threat (McCaslin, et al., 2006) and assaultive violence (Creamer, et al., 2005). Gender was unrelated to peritraumatic distress in the current study. Younger survivor age predicted PDI scores after controlling for current distress but was no longer significant when violent death and first responder support were considered. These findings highlight the need for peritraumatic distress researchers to broaden their enquiry to situation-specific variables, which may be more important than an individual's pre-existing factors. Consistent with PTSD research (Ozer et al., 2003), peri-event variables may also be the key to understanding peritraumatic distress.

Violent death

Given that peritraumatic distress is a reaction to threat, this study raises the simple point that peritraumatic distress risk factors are likely to be those that are perceived to be more threatening at the time of a traumatic event. It is no surprise that survivors in this study found violent deaths more threatening than other sudden and unexpected deaths. Homicides, suicides, and accidents may contain more shocking features and shatter more of one's assumptions about the world than non-violent deaths, for example from heart attack or natural causes (Currier, et al., 2006; B. L. Green, 2000; Redmond, 1996). Violent deaths are therefore likely to threaten one's sense of self, and trust in others and in the process of life (e.g., B. L. Green et al., 2001; Murphy et al., 1999; Rando, 1996; Redmond, 1996; Rynearson, 2001). There were no significant differences between the

four categories of violent death recorded in this study and PDI scores (homicide, suicide, transport/road accident, and other accident). This suggests that it is more likely to be the shocking and unnatural nature of these deaths in general that makes them threatening rather than any specific features of each type of death. In short, the findings indicate that individuals bereaved by any type of violent death are likely to experience heightened fear, helplessness, and horror - and therefore other physiological symptoms of shock - in the peri-event period.

It is acknowledged that violent deaths often involve the death of young people and that the death of a child or young adult may be more shocking than the death of someone older. However, although there was an inverse relationship between violent death and age of deceased in this study, the relationship between violent death and peritraumatic distress was independent of the deceased's age. This suggests that the relationship between violent death and peritraumatic distress was not due to any confounding factor.

First responder support

This is the first study to suggest that lack of first responder support can be perceived as threatening and therefore be a risk to immediate distress. All three measures of first responder support were related to peritraumatic distress: those who perceived receiving fewer helpful interactions (lower I CARE scores), made a complaint about the support of either the police or VS, or gave lower ratings of the combined overall helpfulness of both first responder groups showed more peritraumatic distress. As expected, the composite measure of first responder support predicted peritraumatic distress independent of whether the death was violent or not. This suggests that if survivors feel less supported they are likely to feel greater disempowerment, loss of control, fear, and helplessness. In other words, perceived lack of peri-event support appears to exacerbate survivors' sense of initial threat, even among those bereaved by non-violent deaths.

The most common complaints about police and VS related to insensitivity/intrusion (31.1%). This mirrors responses on the I CARE scale: survivors were most likely to report that first responders spent time with them in an unhurried manner (an example of their need for empathy - the opposite of insensitivity) and were least likely to report that first responders demonstrated helpfulness without being intrusive (an example of their need for control, specifically for avoiding intrusiveness). A further 28.9% of

complaints related to lack of information/communication, and 20.0% each related to lack of follow-up support or unhelpfulness. Consistent with studies of bereaved survivors' needs (e.g., Fraser & Atkins, 1990; Janzen, et al., 2004; Jurkovich, et al., 2000; D. R. Lehman, et al., 1986; Li, et al., 2002), this indicates that the I CARE needs of information, control, and empathy are particularly vital to the suddenly bereaved.

There were few other clues to identify those who perceived lower first responder support. Immediate family members scored lower on the composite measure of support but not on any of the three individual support measures. There were no significant differences between perceptions of police and VS on any of the individual measures, nor could scores be differentiated by pre-event factors such as age or gender or by peri-event factors such as the nature of the death. These three measures were all interrelated, indicating good internal validity, while strong internal consistency was reflected in the high reliability (Cronbach's alpha) of the composite scale.

6.3 Impact of peri-event factors on PTSD and CG symptoms

Peritraumatic distress

PTSD and CG were highly correlated (r = .71), consistent with research suggesting that grief and trauma symptoms appear to be co-morbid in sudden death survivors (e.g., Silverman et al., 2000). As expected, peritraumatic distress was the strongest predictor of both PTSD and CG symptoms after controlling for current distress. Moreover, peritraumatic distress on its own explained more variance in PTSD symptoms than the pre, peri, and post-event variables put together.

This study bolsters the argument that peritraumatic distress is a key PTSD predictor (Birmes, et al., 2005; Brunet, et al., 2001; Simeon, et al., 2003) and for the first time suggests that peritraumatic distress also plays a significant role in CG. The predictive strength of peritraumatic distress in this study is consistent with the main cognitive theories of PTSD (Brewin, et al., 1996; Ehlers & Clark, 2000). These argue that peritraumatic distress disrupts the processing of trauma-related information, resulting in poorly-integrated memories of the event that later exhibit as unwanted intrusive thoughts and images (Brewin, et al., 1996; Ehlers & Clark, 2000). Hence, the higher the distress following a sudden death, the more likely survivors' information processing of the period during and immediately after the death will be disrupted, resulting in greater

PTSD symptoms. This is also the first known study of peritraumatic distress in an indirectly-traumatised population (only three participants were directly involved in the incident that claimed their loved one's life). Comparisons with previous research (Brunet et al., 2001; Fikretoglu et al., 2006) suggest that the type and even severity of immediate reactions to a traumatic event may be indistinguishable based on whether the event is experienced directly (e.g., surviving a car crash) or indirectly (e.g., learning of a loved one's sudden unexpected death).

The findings open an interesting debate about CG because its proponents have previously claimed that peritraumatic responses are unimportant. Prigerson et al. (2000) argue that CG is an issue of attachment to the deceased, not of trauma. By contrast, this study suggests that peritraumatic reactions are actually the *most* important factor after current distress in explaining CG up to two years later. This supports Green's (2000) assertion that grief and trauma share four conceptual factors: disorganisation, attachment, annihilation, and helplessness/loss of control. It is argued that these factors are each examples of threat, which can be measured using the Peritraumatic Distress Inventory. While the role of peritraumatic distress appears less important in CG than in PTSD ($\beta = .23$ vs $\beta = .37$; unique variance 3.4% vs 8.3%), this may be explained in part by the role of the survivor's relationship to the deceased in CG, which was not a factor in PTSD symptoms.

Being an immediate family member of the deceased predicted CG in the final model, consistent with findings that immediate family members are at higher risk of CG (Mitchell, et al., 2004; Prigerson, et al., 2002). If the kinship relationship between survivor and deceased is at least in part indicative of the quality of attachment in the relationship between survivor and deceased, then contrary to the views of Prigerson et al. (2000), there is no need to view trauma and attachment as mutually-exclusive in understanding CG. Indeed, Green (2000) argues that attachment is common to both grief and trauma. However, it is contended that the mechanism that disrupts this relationship or attachment is not the death itself as Prigerson et al. (2002) suggest, but the peritraumatic reaction to the death.

As Figure 6.1 (p 74) shows, a sudden death may result in a sense of threat for the survivor – a threat to one's beliefs about the world, sense of self, relationship with the

deceased, and security. Neimeyer et al. (2002) have already argued that CG occurs when the survivor perceives the death to be threatening to one's self, happiness, and survival. The current study suggests that the threat is more pronounced when the death occurs violently and/or when the survivor perceives less first responder support. It is argued that this threat manifests as peritraumatic distress, which then disrupts the processing of information on two levels: trauma information relating to aspects of the event and grief information relating to the loss of the relationship with the deceased, consistent with Shear et al. (2007). While it is held that peritraumatic distress prevents the formation of coherent memories about the event (Brewin, et al., 1996; Ehlers & Clark, 2000), this study suggests that it may also prevent the formation of a coherent narrative about the loss of the relationship with the deceased. The disruption of traumatic event information is thought to result in fragmented memories about the event, which return as intrusions, leading to PTSD (Brewin, et al., 1996; Ehlers & Clark, 2000). On the other hand, the disruption of grief information about the loss of the relationship with the deceased may result in lack of acceptance that the person has died and lead to CG. Essentially, peritraumatic distress may have the effect of blocking information critical to the narrative of a sudden death, making the aspects of trauma and loss difficult to make sense of, integrate, and accept.

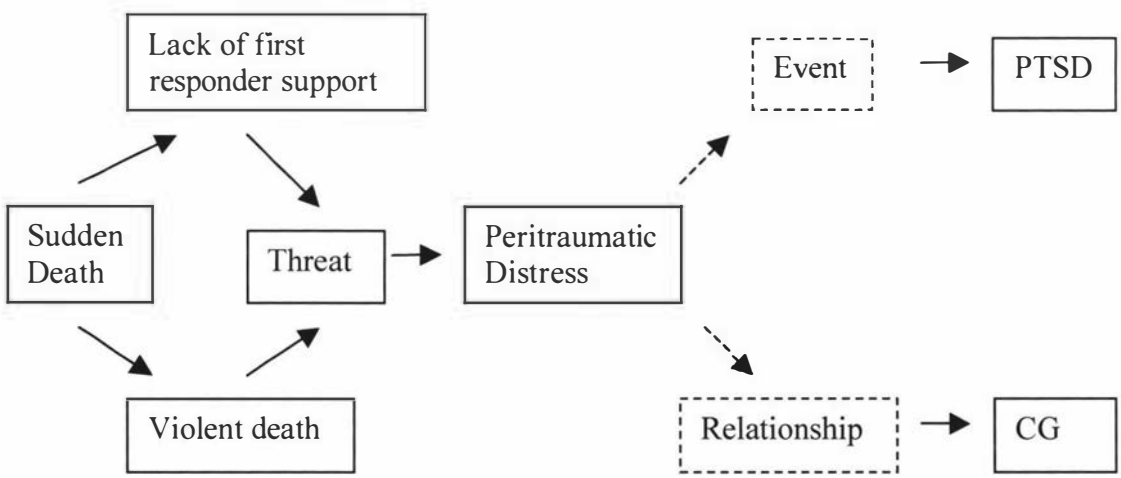

Figure 6.1. Model of PTSD and CG in relation to peritraumatic distress.

An alternative explanation is that PTSD symptoms, rather than peritraumatic distress, may have impeded recovery from the loss and contributed to CG. For example, in a study of sudden death survivors who received psychotherapy, the trauma effects had to be dealt with before therapists could work with the impact of grief (Lindy, Green, Grace, & Tichener, 1983). However, this is unlikely given that peritraumatic distress was related to CG independent of the relationship between CG and PTSD. This study suggests that any impediment to recovery from grief is more likely to occur in the immediate aftermath rather than after the onset of PTSD.

Violent death

Violent death was not directly related to PTSD or CG, contrary to hypotheses. Several studies have reported that violent death results in greater PTSD or CG symptoms than non-violent death (Currier, et al., 2006; Kaltman & Bonanno, 2003; Zisook, et al., 1998) and, generally, higher prevalence of these symptoms is reported in survivors of deaths from homicide, and accident (e.g., Dyregrov et al., 2003; Murphy et al., 1999; Prigerson et al.,1999; Spooren et al., 2000; Sprang, 1997; M. P. Thompson et al., 1998). However, the current findings are consistent with at least one study that found no significant difference between CG in survivors of violent death compared with non-violent death (Prigerson et al., 2002), and with grief researchers' assertions that neither mode of death (Cleiren, 1991; Prigerson, et al., 2002; Prigerson, et al., 2000; Turvey, et al., 1999) nor violent death are important in understanding CG (Barry, et al., 2002; Prigerson, et al., 2002).

This implies two things. First, given that violent death was the key predictor of peritraumatic distress, which was the strongest predictor of PTSD and CG, it appears that violent death has an effect on trauma and grief symptoms but it is *indirect*. In other words, one cannot take a violent death survivor and say that they are at higher risk of PTSD or CG. This reinforces that the relationships between violent death and symptoms of PTSD and/or CG reported in previous studies may have been mediated by peritraumatic distress had it been measured. Indeed, Currier et al. (2006) found that the relationship between violent death and CG in their study was the result of another variable – it was mediated by an inability to make sense of the loss. The potential mediational role of peritraumatic distress could not be tested in the current study because there was no direct relationship between violent death and PTSD or CG.

However, this in itself reinforces that peritraumatic distress may be a catalyst in explaining why violent death has so often been linked to greater PTSD and CG symptomatology. Second, the data imply that how a person reacts to a death may be more significant than the nature of the death per se in explaining long-term trauma and grief reactions. This emphasises the need for sudden death researchers to focus on peri-event factors other than mode of death in relation to long-term outcomes, especially to subjective (i.e., perceptions of distress) rather than solely objective factors (i.e., mode of death).

First responder support

As hypothesised, survivors who perceived less support from police officers and VS workers demonstrated greater PTSD and CG symptomology. This is consistent with studies showing that lack of first responder support is related to CG (Spooren, et al., 2000) and psychological distress (Ingram, et al., 2001; Singh & Raphael, 1981; M. P. Thompson, et al., 1998; Winje, 1998). Further, as expected, peritraumatic distress fully mediated the relationships between first responder support and both PTSD and CG symptoms. This indicates that the impact of first responder support on trauma and grief symptoms is also indirect and most influential in the immediate aftermath of a sudden death rather than at any subsequent point in the following two years.

Pre-event and post-event variables

Interestingly, variables commonly associated with trauma and grief reactions such as female gender, trauma history – and contrary to expectations, violent death - were unrelated to PTSD or CG in this study. This suggests that what happens around the time of a traumatic event is indeed more important than what happens before or after in determining PTSD (Ozer et al., 2003). Although prior experience of trauma is considered a key predictor of PTSD (Ozer, et al., 2003), this study found that it was unrelated to any of the outcome measures. However, prior trauma resolution was inversely related to both PTSD and CG, and predicted CG until the third step, even with the inclusion of peri-event variables. This bolsters the finding that whether an individual considers the worst event they have experienced to be resolved or not is more important than the number of traumatic events they have experienced (Hargrave et al., 2006). It also indicates that lack of resolution may increase a survivor's propensity for lack of acceptance of the death, manifesting in CG. As none of the pre-event variables

or types of traumatic events (as per the TSS) measured in this study correlated with resolution, future research should investigate other potential correlates of trauma resolution such as personality factors.

Avoidant coping/keeping busy was positively related to PTSD and CG. Although it was not a predictor in this study, the significant relationship with both measures supports previous findings that avoidant coping predicts PTSD symptoms (e.g., Bryant & Harvey, 1995) and a study showing that avoidant coping predicted both PTSD and CG among suddenly bereaved students (Schnider, Elhai, & Gray, 2007). This is also further evidence of the commonalities between grief and trauma.

6.4 Implications

This study furthers the theoretical understanding of peritraumatic distress, PTSD, and CG. It can also be applied to help those working with bereaved survivors in both a clinical setting and in the immediate aftermath of a death.

Theoretical implications

Theoretically, this work supports the argument that the immediate aftermath of a sudden death is a critical period for survivors. It provides evidence that the survivor's reaction to the death is more important for long-term outcomes than the nature of the death itself and any pre-event or post-event variables. This offers further support for the importance of peritraumatic distress in understanding PTSD, even in indirectly-experienced traumatic events.

This study also advances the understanding of the shared factors involved in grief and trauma and highlights that peritraumatic reactions are indeed relevant to CG. It contributes to the development of a theory of CG by arguing that cognitive theories of PTSD may also apply to CG. Peritraumatic distress may disrupt the processing of grief information following a sudden death, resulting in a lack of acceptance that the person has died, leading to CG.

Clinical implications

This research has clinical relevance in highlighting the need to consider that suddenly bereaved clients who report higher peritraumatic distress reactions may be at greater

risk of both PTSD *and* CG. This suggests that some overlap between therapy for grief and trauma may be beneficial for sudden death survivors. First, given that peritraumatic distress is a response to threat, therapists would be prudent to target rebuilding the assumptions about one's self and world that may have been shattered in response to the threat. This may involve focussing on the four points that Green (2000) argues are shared by grief and trauma: disorganisation, attachment, annihilation, and helplessness/loss of control. Second, it has been argued that peritraumatic distress leads to PTSD and CG by disrupting trauma and grief information respectively. Hence, a therapeutic goal should also be to rebuild the narrative relating to the sudden death, regarding both trauma information (e.g., aspects of the event) and grief information (e.g., aspects of the relationship between survivor and deceased). The results support the work of others who have suggested trauma therapy should focus on the range of peritraumatic emotions and cognitions that appear to be linked to PTSD (Ehlers & Clark, 2000; Ehlers, et al., 2002; E. A. Holmes, et al., 2005).

Therapists need to be aware that while violent death is a key marker of peritraumatic distress, it appears that such distress cannot be distinguished by whether the survivor was bereaved by accident, suicide, or homicide. Moreover, while violent death and perceived lack of first responder support may help identify those who experienced greater levels of peritraumatic distress, on their own these factors do not identify those at risk of PTSD or CG. A survivor's initial reaction appears to be a more accurate indicator of risk than the mode of death or perception of immediate support. Another clinical implication for sudden death survivors is that any investigations regarding experience of prior trauma should be focussed on whether the survivor feels these are now resolved. This appears to be particularly salient for individuals with CG.

Practical applications

On a practical level, this study highlights the importance of educating first responders about the impact of their interactions with sudden death survivors. Police officers, VS workers, and others involved in the immediate aftermath should be aware that survivors' perceptions of their support can influence their immediate reactions, which in turn influence long-tem outcomes. This will be further studied in Part 3 of this thesis.

6.5 Strengths and limitations

A strength of this study is the breadth of the information collected on the peri-event period and its comparison of this data with pre-event and post-event variables. However, these results should be considered in the context of several limitations. First, it has been acknowledged that retrospective recall of peri-event factors may be subject to biased recall from the passage of time, current distress symptoms, and recent exposure to trauma. However, correlations showed that, of these, only current distress was related to any outcome measures, and this was controlled for in the hypothesis testing and therefore unlikely to confound any key relationships. It is also possible that current PTSD and CG symptoms may have interfered with recall of peri-event variables, resulting in overrepresentation of peritraumatic distress and lack of first responder support among survivors with elevated PTSD or CG. However, these possibilities are unlikely given that research shows retrospective recall of traumatic distress is largely accurate (Shalev, et al., 1996) and that memory may even be enhanced during the peritraumatic period (e.g., Cahill & McGaugh, 1995; Heuer & Reisberg, 1990; Pitman, 1989).

Second, the cross-sectional design of this study leaves questions about the directionality of key relationships, for example the relationships between first responder support and peritraumatic distress, avoidance strategies and PTSD and CG, and current distress and PTSD and CG. Importantly, it is possible that survivors with high peritraumatic distress may have perceived lower first responder support because they were distressed at the time rather than the other way round. However, given the evidence that sudden death survivors do have specific needs, which if not met, can cause distress, this is less plausible. The cross-sectional design suited this study as it was an exploratory investigation, however future research on this topic should employ a longitudinal design with measurements at multiple points to increase the validity of the current findings.

Third, the low response rate (32%) and relatively small sample size (n = 125) restrict the generalisability of the findings to other sudden death survivors. Still, other cross-sectional quantitative studies of the suddenly bereaved have yielded similar response rates, for example 24% (B. L. Green, et al., 2001), 41% (Spooren, et al., 2000), and 48% (Reed, 1998). The generalisability of findings to males is also in question, given that 68.0% of participants were female. It is acknowledged that females are more prone to

PTSD (Brewin et al., 2000) and possibly CG (Chen et al., 1999; Dyregrov et al., 2003; Melhem et al., 2004a), and that gender differences exist in both coping and grieving styles (Stroebe & Schut, 2001). A strength of the study, however, is that besides gender, the sample represents a fair cross-section of society in terms of other demographic factors.

Fourth, the seven pre, peri, and post-event variables inputted into the regression analyses for peritraumatic distress, PTSD, and CG accounted for 33.9%, 43.9%, and 52.3% of the variance respectively. Thus, the model was the best fit for complicated grief but highlighted that other factors unaccounted for in this study explain a large proportion of the variance in each of the three outcome variables. The peri-event factors selected were specific to sudden death, however given that factors more proximal to the traumatic event are the strongest predictors of PTSD (Ozer, et al., 2003), the fit may have been better for PTSD at least if more generic peri-event predictors such as dissociation and life threat (Ozer, et al., 2003), negative appraisals about the event (Ehring, et al., 2007), and trauma severity (Brewin et al., 2000) were chosen. Direct involvement in the incident and whether multiple deaths occurred could have been used to measure life threat and trauma severity respectively. However, only three participants were directly involved and 10 reported multiple deaths, hence the small numbers prevented meaningful analyses.

Other factors not measured in this study that have been implicated in PTSD and CG include personality factors (American Psychiatric Association, 1994), family history of psychopathy, prior adjustment, and perceived social support (Ozer, et al., 2003), childhood abuse/adversity and life stress (Brewin et al., 2000; Prigerson, et al., 2002; Silverman, et al., 2000), and negative appraisals about the event after it has occurred (Ehring, et al., 2007). It is worth noting that participants were asked what coping strategies they found most helpful but their actual effectiveness was not assessed. Shalev (2002) states that the method of coping is often less important than the extend to which the strategy was successful. While previous research has not examined predictors of peritraumatic distress, there is evidence that this may be associated with peritraumatic dissociation (Fikretoglu, et al., 2007), which may have boosted the variance explained by this model had it been included.

Fifth, while this study has purported to investigate the peritraumatic period of a sudden death (up to 48 hours post-event), both the survivor and first responder samples were eligible if they had had contact with each other within *seven days* of the event. The I CARE and PDI measures did ask respondents to think back to the period immediately after the death, but there still may have been participants from both samples who had contact days rather than hours after the death occurred. However, this is unlikely given that police and VS contact with survivors is usually as soon as possible after the death has been reported to police.

Finally, there are questions over the use of several measures. The composite measure of first responder support comprised three exploratory and previously untested measures that were each developed for this study. The selection of items in the final version of the I CARE scale was based on identifying items with similar loadings across the survivor and first responder samples. While this method was appropriate given the aim of including only items relevant to both samples, the final items may have been different if tested in other survivor and first responder populations and in larger samples. Further testing, including test-retest reliability, is warranted. However, the survivor version of the I CARE scale had an acceptable Cronbach's alpha reliability of .71 and the reliability for the composite measure was even higher at .92. Nunnally (1978) suggests that .70 and above is an adequate reliability, thus preliminary testing of the first responder support measures confirms their internal reliability.

6.6 Conclusions

This study of sudden death survivors showed that peri-event factors are critical to understanding a survivor's immediate and long-term reactions to the death and are more influential than pre-event factors such as demographic details and post-event factors such as coping style. After controlling for current distress, violent death and perceived lack of first responder support were the biggest predictors of peritraumatic distress, which in turn was the biggest predictor of both PTSD and CG symptoms. However, contrary to previous studies, violent death was unrelated to PTSD and CG. This highlights that how a person reacts to the death may be more important in the long-term than the nature of the death itself, and that these immediate reactions are also important in understanding CG. There is evidence now that peritraumatic distress not only disrupts the processing of trauma information resulting in PTSD, but also of grief-

related information, resulting in CG. The findings help the theoretical understanding of how sudden death leads to PTSD and CG, and can be used to guide therapists and first responders working with sudden death survivors.

PART 3

IMPACT OF THE IMMEDIATE AFTERMATH OF SUDDEN DEATH ON FIRST RESPONDERS

CHAPTER 7:
INTRODUCTION

7.1 THE IMPACT OF SUDDEN DEATH WORK ON FIRST RESPONDERS: A BRIEF INTRODUCTION

I hated to hear on the radio "Sergeant, we have an unconscious male, an unconscious female." Because you knew that that was a dead body and you had to go. You had to face death, you had to see death, and you had to see it in a very unnatural way.

Henry (2004 p. 158)

Working with dead bodies and bereaved survivors is one of the most frequent job stressors reported by police officers (Brown, et al., 1999; Karlsson & Christianson, 2003; Stephens & Miller, 1998; Sugimoto & Oltjenbruns, 2001), firefighters (Beaton, Murphy, Johnson, Pike, & Corneil, 1998; Moran & Britton, 1994; Paton, 1994), paramedics (Beaton, et al., 1998; Clohessy & Ehlers, 1999), and rescue workers (Ursano, McCarroll, & Fullerton, 2003). New Zealand police officers (Stephens & Miller, 1998) and VS workers (Hargrave, et al., 2006) have also reported the stress of sudden death work.

Across professions, the literature describes many examples of adverse psychological reactions to sudden death work, including peritraumatic distress (Marmar, Weiss, Metzler, Ronfeldt, & Foreman, 1996), peritraumatic dissociation (Marmar, Weiss, Metzler, & Delucchi, 1996), PTSD (Ursano, et al., 1999), psychological distress (Jones, 1985), somatic symptoms (Jenkins, 1998; McCarroll, Ursano, Fullerton, Liu, & Lundy, 2002), suicidal ideation (Violanti, 2004), and physical illness (Bartone, et al., 1989).

Given that factors more proximal to the trauma, including peritraumatic distress, are the strongest predictors of PTSD (Ozer, et al., 2003), it is important to understand how peritraumatic variables may affect first responders involved in sudden death work. The focus of most research in this line of work has been on the nature of the death and deceased, such as the impact of disturbing and grotesquely-injured bodies, and the sensory stimulation that may accompany this (e.g., Greene, 2001; Jones, 1985; Taylor & Frazer, 1982; Ursano & McCarroll, 1994; Ursano, et al., 2003); child victims (A. Dyregrov, 1995;

Lipton, 2000; Stewart, et al., 2000); a sense of identification with the deceased (Ursano, et al., 1999); and handling the deceased's personal effects (A. Dyregrov, 1995; Robbers & Jenkins, 2005; Ursano, et al., 2003). Much less is known about the impact of working with bereaved survivors in the immediate aftermath of a sudden death, although first responders frequently describe this as a distressing part of their work (Brown, et al., 1999; Ender & Hermsmen, 1996; Eth, et al., 1987; Henry, 2004; Karlsson & Christianson, 2003; Stewart, et al., 2000; Sugimoto & Oltjenbruns, 2001; Wright, 1991).

Three sources of distress relating to work with survivors that are frequently described in the literature on sudden death work have been selected for examination in this study: witnessing survivors' reactions (e.g., Regehr et al., 2002; Wright, 1991), identification with the survivor (e.g., Henry, 2004; Regehr, et al., 2002), and peritraumatic distress (Bartone, et al., 1989; Eth, et al., 1987; Hodgkinson & Shepherd, 1994). This study will investigate how these three examples of distress affect both one another and secondary traumatic stress (STS) in first responders up to 19 months later.

It is also important to understand how first responders' distress may influence the support they offer survivors in the immediate aftermath. Evidence suggests that people who are distressed during interactions with others who have experienced a traumatic event, such as bereavement, may offer unhelpful support (Dakof & Taylor, 1990; Dunkel-Schetter & Wortman, 1982; D. R. Lehman, et al., 1986; Rosenblattt, et al., 1991; K. E. Thompson & Range, 1992). This indicates that first responders who experience distress in sudden death work may be less likely to meet survivors' immediate needs. As shown in Part 2, when survivors perceive less support from first responders, including fewer needs being met, they are at greater risk of peritraumatic distress, which in turn predicts PTSD and CG symptoms.

The rest of this chapter begins with a review of the literature relating to the three sources of distress that are common to first responders in sudden death work: distress at survivors' reactions, identification with the survivors, and peritraumatic distress. The next section discusses the impact of this distress on first responders – in terms of the support they may offer survivors and their own STS symptoms. The introduction concludes with aims and hypotheses in Chapter 8.

7.2 SOURCES OF DISTRESS FOR FIRST RESPONDERS WORKING WITH SURVIVORS IN THE IMMEDIATE AFTERMATH

7.2.1 Distress at Survivor Reactions

You look into her eyes and the eyes of those three little children, and you know you are going to destroy their lives. You must deliver the painful fact that her husband is dead... Death notification is one of the most dreaded assignments a police officer can receive.

Wentink (1991 p. 373)

Studies and anecdotal accounts suggest that witnessing survivors' distress in the immediate aftermath of a sudden death causes discomfort and distress for first responders (Eth, et al., 1987; Haglund, Reay, & Fligner, 1990; Hart & DeBernardo, 2004; Regehr, et al., 2002; Stewart, et al., 2000; Stewart, Lord, & Mercer, 2001). In a sample of British police officers, dealing with death and distressed survivors explained the largest amount of variance (26%) in five categories of police activities that were perceived to be stressful (Crowe & Stradling, 1993). Several studies have focussed on the distress of witnessing survivor reactions during death notification. Most of the 50 homicide detectives surveyed by Eth et al. (1987) were concerned about survivor reactions when making death notifications, and this anxiety grew with the number of notifications they had performed. Police officers also report concern about being the target of violent and unexpected reactions when they inform survivors of a sudden death (Eth, et al., 1987; Wentink, 1991). There have even been cases of survivors dying from heart attacks upon hearing of their loved one's death (Helm & Mazur, 1989), while Hendricks (1984) warns of the risk of survivor suicide following the death notification.

Stewart et al. (2000) surveyed 240 individuals from different professions who routinely made death notifications about the type of survivor reactions that made this task difficult. Respondents reported that the most distressing reaction was attempted self-harm, followed by physical acting out, anxiety/panic, anger, uncontrollable crying, and dissociation. Police officers were more likely to find uncontrollable crying distressing than social workers and victim advocates. The authors suggested that police officers may find it

challenging to switch from their role as active law enforcers to one that demands more passive compassion and empathy.

In a survey of emergency department nurses who worked with survivors after a sudden death in the hospital, the most difficult reaction to witness was withdrawal, which occurred in about one-third of deaths that the nurses dealt with (Wright, 1991). It was argued that withdrawal made some nurses question their effectiveness and left them feeling uncomfortable as they were used to keeping busy and trying to make people well. Denial was the second most difficult reaction to cope with, perhaps because nurses felt they had to repeat the facts in order to make sure the survivor had understood the reality of the death. Other reactions that nurses found distressing, in descending order of impact, were anger, isolation, bargaining, inappropriate responses, guilt, crying, and acceptance.

Bartone et al. (1989) examined the impact of army family assistance officers who supported bereaved survivors following the 1985 Newfoundland air crash that killed 248 United States soldiers. Many of the helpers, whose role included providing emotional and practical support for the survivors in the immediate aftermath, reported feeling sad, helpless, and disturbed by survivors' grief. Their degree of exposure to survivors - based on factors including length of contact, number of family members assisted, and whether or not the assistance officers handled the deceased's property - predicted psychological wellbeing, negative affect, and illness 12 months later.

Distress at survivor reactions has also been echoed throughout anecdotal reports of first responders engaged in sudden death work. For example, an ambulance officer described his feelings toward a woman whose child had died: "It was just heart wrenching, I didn't want to talk to her. I didn't want anything to do with her at all. I couldn't even look at her." (Regehr, et al., 2002 p. 507).

The evidence suggests that survivors' reactions may elicit a sense of helplessness, pity, sadness, fear, and discomfort in first responders - in other words, peritraumatic distress reactions. It is therefore hypothesised that distress at survivor reactions will predict peritraumatic distress in first responders, and as will be discussed later, will also block first responders' ability to support the survivor and contribute to STS. It is important to know which survivor reactions police officers and VS workers find most distressing, and

to identify the impact of this source of distress on both first responders and those they help.

7.2.2 Identification with Survivors

The police were young and one was distressed, I think it was his first suicide and I think he identified as a son with my sadness.

Bereaved survivor, current study.

It is common for first responders to identify with the people they assist – both living and dead – and for this to cause them distress. Identification has been defined as a cognitive process whereby another is perceived as being similar to one's self, family members, or friends (Ursano & Fullerton, 1990). It involves individuals incorrectly thinking by similarity, excluding new and contradictory information, leading to voluntary and involuntary imagining (Ursano & Fullerton, 1990; Ursano, et al., 1999). Identification with clients, victims or patients is well documented in trauma workers, including therapists (Cadwell, 1994), firefighters (Fullerton, McCarroll, Ursano, & Wright, 1992), hospital staff (Laposa & Alden, 2003; McLaughlin, 2000), body-handlers (McCarroll, et al., 1995; Ursano, et al., 1999), army family assistance officers (Bartone, et al., 1989), social workers (Hodgkinson & Shepherd, 1994), rescue workers (Cetin, et al., 2005), and police officers (Henry, 2004).

Most researchers have measured identification by asking participants several questions based on the degree to which they related/felt similar to, had things in common with, or imagined themselves in the place of the victims or the people they helped. More recently, Ursano and colleagues (1999) have developed a measure of identification using Likert responses to three items: *It could have been me*; *one of the victims reminded me of a close friend*; and *it could have been a member of my family.*

Using these items, Ursano et al. (1999) found that nearly 75% of the 54 volunteers who had worked in a mortuary with victims of an explosion, identified with the deceased victims in at least one of these ways. Those who identified with the deceased as a friend had significantly more PTSD symptoms, cases of PTSD, and distress than those who did not identify in this way. Those who identified with the deceased as a family member showed more intrusion symptoms than those who did not. Interestingly, identification

with the deceased as one's self had no significant impact on the mortuary workers, however this may be because this item is too frequently endorsed to have any discriminatory power (R. Ursano, personal communication, 6 April, 2005). This scale was also used with soldiers involved in a rescue operation following an earthquake in Turkey (Cetin, et al., 2005). Rescuers showed significantly more PTSD symptoms (IES) and identification than a control group of soldiers who were not involved in the rescue effort, and identification was significantly correlated with IES scores.

Different measures have also found that identification is related to distress. Hodgkinson and Shepherd (1994) divided social workers who had worked on major disasters into "high identifiers" and "low identifiers" based on whether or not they had imagined how they would have coped if they had been one of the victims, ruminated on clients' experiences, felt helpless in the face of these experiences, and the work had reminded them of earlier unhappy memories. The high identifiers scored significantly higher on the HSCL obsessive/compulsive score. In another study, students' perceived similarity to the late Princess Diana was measured using five Likert-scale items, including the extent to which they felt she was like them and felt they were similar in personality (Pillow & Cassill, 2001). Those who perceived themselves to be similar to Princess Diana showed higher negative affect following her death (feelings of being upset, angry, saddened, anxious, hostile, mournful, tense, and depressed).

Gaps in identification research

While there is evidence of a relationship between identification and distress, at least two aspects of identification are under-researched. First, the emphasis has been on trauma workers' identification with the deceased rather than the survivor. Given that identification with the deceased is related to PTSD, identification with survivors may be related to secondary traumatic stress, which is a traumatic reaction specific to helping trauma victims.

Second, attempts to measure identification have ignored qualitative research suggesting that identification is not only expressed cognitively but emotionally as well. Examples include trauma workers imagining being friends with their clients (Cadwell, 1994), worrying about deceased victims' families (Greene, 2001), the feeling that they should have been suffering instead of the client or victim (Cadwell, 1994, 1997; Greene, 2001),

feeling the grief of the survivors (Ursano, et al., 2003), becoming personally involved in helping victims (Henry, 2004), and knowing what the survivor has gone through because they themselves have had a similar experience (Hendricks, 1984). These examples of identification could be referred to as *emotional identification.*

Emotional identification is distinguishable from similar constructs such as empathy and countertransference. While empathy theorists have argued that empathy has both cognitive and emotional elements (Coke, Batson, & McDavis, 1978; Davis, 1983), empathy and identification are independent. Bandura (1986) posits that in empathy, the individual imagines how the other would feel, while in identification, the individual imagines how *they* would feel if they were in the other's position. It could be said that empathy involves *understanding* what another is experiencing, either by knowing (cognitive empathy) or feeling (emotional empathy). Identification, on the other hand, involves *experiencing* what the other is experiencing through a sense of similarity, either by thinking about the experience and the similarity (cognitive identification) or by feeling the experience and the similarity (emotional identification). Further, empathy scales measure a global trait, while identification relates to a situation-specific reaction to a specific individual. Identification is also distinct from countertransference. This phenomenon is limited to a therapeutic relationship whereby conscious or unconscious processes between therapist and client elicit emotional and behavioural responses in the therapist (Freud, 1910/1959).

First responders who experience emotional identification may be unable to distinguish between their own needs and those of others. Indeed, observers react more emotionally to a person in pain if, at the time, they imagine how they themselves would feel rather than how the other person feels (Stotland, 1969). It is therefore expected that those who identify in an emotional sense will experience greater peritraumatic distress than those who identify on a more cognitive level. It is imperative that any measurement of identification incorporates the varied expressions of this construct that have been shown in both quantitative and qualitative research. This study will trial an expanded version of Ursano and colleagues' identification scale, including items that cover a range of possible cognitive and emotional expressions of identification with survivors. It is expected that the scale will reveal two components of identification – cognitive and emotional – and that both will be related to peritraumatic distress and STS.

7.2.3 Peritraumatic distress

...A feeling of un-realness and slow motion, that I viewed everything from a distance... I have a strong memory of the smell of blood and flesh mixed with earth, oil and wet grass. I remember I could only think slowly, and during the whole time I mentally had to repeat to myself what I would say and do, things that I normally would have done routinely.

Police officer, Karlsson and Christianson (2003)

As described in Part 2, Chapter 2.1.3 (p 17), peritraumatic distress is a subjective response to perceived threat that includes reactions of fear, helplessness, and horror (American Psychiatric Association, 1994; Brunet, et al., 2001). Previously, peritraumatic distress has only been studied as a response in primary victims who have directly experienced a traumatic event, including survivors of a factory fire (Birmes, et al., 2005), police officers and civilians who experienced a critical incident (Brunet, et al., 2001; Fikretoglu, et al., 2006; McCaslin, et al., 2006), victims of violent crime (Brewin, Andrews, & Rose, 2000), and New York civilians following the 9/11 terrorist attacks (Simeon, et al., 2003).

There are no known studies of peritraumatic distress in first responders who support bereaved survivors. However, it has been argued in this chapter that both distress at survivor reactions and identification with the survivor may evoke strong emotional reactions in first responders (Bartone, et al., 1989; Eth, et al., 1987; Hodgkinson & Shepherd, 1994). Several prominent trauma and bereavement theorists have argued that distress may induce a sense of threat for individuals who work with bereaved survivors. Raphael (1986) suggests that first responders may be reminded of their own vulnerability – that they too could die or be bereaved without warning. Wortman and Lehman (1985) argue that first responders, like bereaved survivors, often experience the shattering of the assumptions they hold about the world when confronted with sudden death survivors. As discussed in Part 2, this sense of vulnerability may be especially pronounced when confronted with a violent death (B.L. Green et al., 2001; Murphy et al., 1999; Rando, 1996; Redmond, 1996; Rynearson, 2001). Indeed, much of the research describing first responders' distress in sudden death work has focussed on violent deaths (e.g., Greene, 2001; Jones, 1985; Taylor & Frazer, 1982; Ursano & McCarroll, 1994; Ursano, et al., 2003). Police officers often expect to feel *in*vulnerable, so their vulnerability may result

in additional fear, helplessness, and shame (Violanti, 1996), all of which are peritraumatic distress reactions.

Taken together, these findings suggest that first responders are likely to experience peritraumatic distress in relation to their interactions with survivors. Thus, it is important to identify the variables involved in sudden death work that are associated with peritraumatic distress because it predicts PTSD, and may also predict STS. Cognitive theories of PTSD argue that peritraumatic distress disrupts the processing of trauma information, resulting in intrusive symptoms, hyperarousal, and avoidance. Part 2 of this study found that peritraumatic distress predicted both PTSD and CG symptoms in sudden death survivors, and it was argued this was due to disrupted processing of trauma and grief related information respectively. Therefore, it follows that in first responders, peritraumatic distress may disrupt the processing of *secondary* trauma information (relating to their experience of exposure to the survivor) and result in *secondary* traumatic stress (STS).

In this study, it is anticipated that peritraumatic distress will be higher among first responders who work with survivors bereaved by a violent death, as this may intensify the threat to their own sense of safety and control. Peritraumatic distress is also expected to be positively related to distress at survivor reactions and identification, as both are sources of distress that could contribute to greater vulnerability and peritraumatic reactions. Finally, given that peritraumatic distress is a robust predictor of PTSD in primary victims, it is hypothesised that it will also predict STS reactions in first responders.

7.3 THE IMPACT OF FIRST RESPONDERS' DISTRESS ON SURVIVORS

7.3.1 The relationship between first responder distress and survivor support

I no sooner stepped through the hospital door (to view my husband's body) when a very well-meaning man from Victim Support came up very close to my face, took my hand and expressed sympathy. He then proceeded to tell me about Victim Support and that he was there for me. All I wanted at that point was to see my husband. I felt very annoyed and wanted him to go away and leave me to deal with things.

Bereaved widow, current study.

Evidence suggests that the distress first responders experience when working with survivors has vital implications for the survivors themselves. There is ample evidence that supporting the bereaved can induce intense anxiety, which inhibits attempts to help them (e.g., D. R. Lehman, et al., 1986; Rosenblattt, et al., 1991; Wortman & Lehman, 1985). First responders may be motivated to relieve their own anxiety by attempting to "cure" the survivor in a bid to avoid further upsetting them. This means that the survivor's immediate needs are unlikely to be met. As described in Part 2, these needs fall into five main groups, forming the acronym I CARE: Information, Control, Accept, React, and Empathy (see Table 4.1, p. 42). Examples of "cure" behaviours described in the bereavement literature are shown in this table and include withholding information (Spungen, 1997); taking over tasks (Ingram, et al., 2001; D. R. Lehman, et al., 1986); using minimising and clichéd statements, such as "I know how you feel" or "things will get better soon" (D. R. Lehman, et al., 1986); preventing viewing of the body (e.g., Dix, 1998; Goldsmith & Haddington, 1997; Singh & Raphael, 1981); preventing expression of reactions (Ingram, et al., 2001); and showing emotional coldness (Pastorella, 1991; Spungen, 1997).

However, as described in Chapter 2.2.2, "cure" strategies like these are associated with greater distress in survivors (Ingram, et al., 2001; Singh & Raphael, 1981; Spooren, et al., 2000; M. P. Thompson, et al., 1998; Winje, 1998). Indeed, Part 2 of this study showed that perceiving fewer needs being met and less support from first responders predicted peritraumatic distress in survivors, which in turn was the biggest predictor of both PTSD

and CG symptoms after controlling for current distress. Wortman and Lehman (1985) suggested over 20 years ago that trauma workers need to be aware of the anxiety inherent in witnessing survivors' distress and learn to work with the survivor while resisting the need to intervene - in other words, to "care not cure", as underscored in Chapter 2.2.2. This principle has also been reinforced recently by Raphael and Wooding (2004). Given recent discussions to replace critical incident stress debriefing with needs-based psychological first aid (e.g., McNally, Bryant, & Ehlers, 2003; Ministry of Health, 2007a; Raphael, et al., 2004; Ruzek, et al., 2007; Shalev, 2002; World Health Organization, 2003), there is an urgent need for basic empirically-based guidelines that aim to limit the distress of both survivors and helpers immediately after a sudden death.

Other examples of first responders failing to meet survivors' needs come from studies showing discrepancies between the perceptions and practice relating to bereaved survivors. For example, it appears that non-bereaved people and trauma workers are familiar with the needs of the bereaved in theory (e.g., D. R. Lehman, et al., 1986; Tye, 1993) but often fail to put this into practice. While some first responders are aware of the importance of body viewing for example (e.g., Tye, 1993), there is evidence that professionals who deal with death regularly *do* discourage survivors from seeing their loved one's body, usually to protect them from further distress (e.g., Singh & Raphael, 1981; Spooren et al., 2000). Another example is a study that showed non-bereaved individuals perceive the bereaved as having less support, less acceptance of the death, and a worse recovery than bereaved individuals actually report (K. E. Thompson & Range, 1992). This implies that bereaved survivors may be viewed as more vulnerable than they really are, hence intensifying the helper's fear of adding to the survivor's distress. Indeed, studies have shown that the more distressed and helpless the victim is, the more derogation potential helpers feel towards them (Coates, Wortman, & Abbey, 1979; Dunkel-Schetter & Wortman, 1982). Thus, the victims who are most in need of support may be the ones who are least likely to receive it (Wortman & Lehman, 1985). This may be particularly true in the case of suicide survivors, who tend to be viewed more negatively than other sudden death survivors by both others and themselves (Jordan, 2001). In Jordan's review of the suicide literature, he stated that there is still a social stigma attached to suicide, which makes helpers more likely to blame survivors and to feel awkward about interacting with them.

Several theories have attempted to explain why helpers' anxiety may thwart attempts to help bereaved survivors. Wortman and colleagues (e.g., Coates, et al., 1979; Silver, Wortman, & Crofton, 1990; Wortman & Lehman, 1985) have long argued that unhelpful attempts to support the bereaved, such as those described above, are the result of a conflict between 1) a helper's vulnerability and helplessness that are evoked by seeing another in distress, and 2) the common belief that one should be optimistic and cheerful when dealing with another in crisis, presumably to try to make them feel better. They state that vulnerability can be compounded by the fear of intensifying the victim's distress by doing or saying the "wrong thing".

This is supported by the theory of altruism (see Batson & Shaw, 1991 for review). Batson and Shaw (1991) argue that egoism is one of the prime motivations for helping behaviour. For example, one may help a distressed person in order to relieve one's own discomfort at seeing their distress – in behaviouristic terms, avoiding aversive arousal. While seeing another suffering can evoke the vicarious response of distress, they argue that it can also evoke empathy, both of which are powerful motivators of helping behaviour. Indeed, those assisting the suddenly bereaved may have a genuine desire to end the survivor's suffering and to feel purposeful, but this may be coupled with a motivation to end one's own distress and discomfort too (D. R. Lehman, et al., 1987; Wortman & Lehman, 1985).

Eisenberg and colleagues (Eisenberg & Fabes, 1999; Eisenberg, et al., 1994) argue that the ability to help others in a crisis depends on whether the supporter can regulate the emotional arousal activated by witnessing others' distress. Those who can, experience empathy and are able to focus on the other person's needs. Those who are unable to regulate their emotional reactions may experience aversive arousal and turn their focus to their own needs. Studies of adults' and children's ability to regulate emotional arousal have shown a positive relationship between empathy and regulatory abilities, and an inverse relationship between personal distress and regulation (Eisenberg & Fabes, 1999; Eisenberg, et al., 1994). This suggests that first responders with elevated peritraumatic distress would be less likely to meet the immediate needs of sudden death survivors.

While it is plausible that peritraumatic reactions such as distress at survivor reactions and peritraumatic distress would inhibit first responders from meeting survivors' needs, there is debate about whether identification promotes helpful or unhelpful behaviours towards

victims. Wayment (2004) found that those who perceived themselves as similar to 9/11 victims experienced greater distress but also engaged in more collective helping behaviours (e.g., donating blood, clothes, food, money, or time to help the victims). Likewise, in a social psychology experiment, perceived similarity to a person posing as a cancer patient enhanced the participant's supportiveness during a live interaction with the "patient" (Westmaas & Silver, 2006). In another study, participants who perceived themselves to be similar to a hypothetical victim were less likely to blame the victim and were more willing to be supportive (Feldman, Ullman, & Dunkel-Schetter, 1998). Together, these findings support two prominent theories in social psychology: that similarity increases attraction and positive attitudes (Byrne, 1971), and that individuals are motivated to compare themselves to and invest more of their time and resources with similar others (Festinger, 1954).

However, with the exception of Wayment's 9/11 study, this body of research has not considered identification to be a source of distress. In reality, interacting with suddenly bereaved survivors is qualitatively different from, and potentially more upsetting than, interacting with hypothetical victims in a laboratory. While it is possible that perceived similarity may promote helpful behaviours up to a point, it is important to consider that high levels of identification in real life interactions are known to be distressing for first responders (e.g., Cetin, et al., 2005; Ursano, et al., 1999). Therefore, it is hypothesised that the three peri-event reactions measured in this study - distress at survivor reactions, peritraumatic distress, and identification - will be associated with less helpful behaviour towards survivors in the immediate aftermath (lower I CARE scores).

7.3.2 *Secondary traumatic stress*

Although I did not admit it anyone – my partner, my wife – I kept dreaming of the little kid's eyes.

Figley (1999 p. 37)

There is not a road in my district that I can drive down without remembering a scene of a fatal crash or a death in a house.

Police officer, current study

Traumatic stress symptoms have long been noted in secondary trauma victims including families of war veterans, emergency services personnel, disaster workers, and abuse and trauma therapists (see Figley & Kleber, 1995 for a review). Secondary traumatic stress (STS; also known as compassion fatigue or vicarious traumatisation) is the name given to traumatic stress symptoms experienced by *secondary* victims, such as first responders, who are exposed to primary victims, such as bereaved survivors. STS symptoms are the same as those of PTSD, including intrusive thoughts/images, avoidance, and hyperarousal, but the stressor is the exposure to the distressed primary or secondary victim, rather than the traumatic event itself (Figley, 1995a, 1995b). As shown in Table 7.1 (p 98), rather than flashbacks to the death itself, a first responder may have flashbacks to their interactions with the victim and the victim's involvement with the event, and so on. While vicarious traumatisation is often used interchangeably with STS, the vicarious traumatisation research by Pearlman and colleagues (e.g., Pearlman & MacIan, 1995; Pearlman & Saakvitne, 1995) refers to a phenomenon that is distinct from STS, which focuses on the disruption of therapists' beliefs rather than posttraumatic symptomatology.

Figley (1995b, p.7), who coined the term, defines STS as:

> The natural consequent behaviours and emotions resulting from knowledge about a traumatising event experienced by a significant other – the stress resulting from helping or wanting to help a traumatised or suffering person.

By this definition, there is a risk of STS for "anyone who engages empathetically with trauma survivors – journalists, police, emergency room personnel, shelter staff, prison guards, clergy, attorney, researchers etc." (Pearlman & Saakvitne, 1995 p. 281). Indeed, STS has been shown in a variety of trauma workers including VS workers (Hargrave, et al., 2006), sexual abuse and domestic violence counsellors (Jenkins & Baird, 2002),

psychotherapists (Kassam-Adams, 1995), and police officers (Follette, Polusny, & Milbeck, 1994). However, while STS research is growing, the focus of sudden death work research has remained on PTSD. Thus, little is known about the risk of STS for first responders who work with sudden death survivors, despite ample evidence that such work can be distressing.

Table 7.1. Comparison of PTSD and STS

PTSD	STS
A. Stressor 1. Experienced, witnessed, or been confronted with event(s) that involve actual or threatened death or serious injury, or threat to physical integrity of oneself or others. 2. Response involves intense fear, helplessness, or horror.	A. Stressor 1. Interaction with an individual (victim) who has experienced, witnessed, or been confronted with event(s) that involve actual or threatened death or serious injury, or threat to physical integrity of oneself or others. 2. *Response involves intense fear, helplessness, or horror.* [1]
B. Reexperiencing Recollections, dreams, sudden reexperiencing of the event, associated with distress.	B. Reexperiencing Recollections, dreams, sudden reexperiencing of the victim and their involvement with the event, associated with distress.
C. Avoidance Efforts to avoid thoughts, feelings, activities associated with the event. Physiologic amnesia, diminished interest in significant activities, detachment from others, diminished affect, sense of foreshortened future.	C. Avoidance Efforts to avoid thoughts, feelings, activities associated with the victim and their involvement with the event. Physiologic amnesia, diminished interest in significant activities, detachment from others, diminished affect, sense of foreshortened future.
D. Hyperarousal Difficulty falling/staying asleep, irritability/outbursts of anger, difficulty concentrating, hypervigilance, exaggerated startle response, physiologic reactivity to cues reminding individual of the event.	D. Hyperarousal Difficulty falling/staying asleep, irritability/outbursts of anger, difficulty concentrating, hypervigilance, exaggerated startle response, physiologic reactivity to cues reminding individual of the victim and their involvement in the event.

Adapted from Figley (1995b)

[1] To be investigated in current study

STS risk factors

Pre-event variables relating to STS include more experience of personal trauma (Follette, et al., 1994; Jenkins & Baird, 2002; Kassam-Adams, 1995), lack of trauma resolution (Hargrave, et al., 2006), younger age (Arvay & Uhlemann, 1995), female gender (Cornille & Meyers, 1999; Kassam-Adams, 1995), lower education (Baird & Jenkins, 2003), higher client caseload (Arvay & Uhlemann, 1995; Brady, Guy, Poelstra, & Brokaw, 1999; Chrestman, 1995), spending more hours per week spent with clients (Cornille & Meyers, 1999; McLean, Wade, & Encel, 2003), and less experience in trauma work (Arvay & Uhlemann, 1995; McLean, et al., 2003; Way, Vandeusen, Martin, Applegate, & Jandle, 2004).

Little is known about the effect of peri or post-event factors on STS. In relation to post-event variables, Hargrave et al. (2006) found no relationship between STS and the support strategies VS workers used following their most distressing work-related event Among New Zealand police officers who had experienced a work-related traumatic event, Stephens and Long (1999) found that receiving emotional support from peers moderated the relationship between the event and PTSD, while following a separate incident, those who received a debriefing had more PTSD symptoms (Addis, 2003). Both samples of first responders in the current study can access a range of support options, including debriefing, so these strategies will be investigated in relation to STS.

Even less attention has been given to peri-event factors and STS, which is surprising given the findings that peri-event variables are the main predictors of PTSD (Ozer, et al., 2003). As discussed in chapter 2.1.3, peritraumatic distress may be a key mechanism in the development of STS, as it may disrupt the processing of trauma information related to the survivor (the stressor). Studying the impact of peritraumatic distress in first responders may also help the theoretical understanding of STS, which is currently under-developed.

Theories of STS

Recently, Motta (2008) has taken an evolutionary approach to understanding STS. He argues that social learning theory may explain STS, and that humans may develop traumatic responses from simply observing another's trauma. Motta posits that being

affected by another's traumatic experience may have survival value in teaching humans and animals to protect themselves from threat.

However, most theoretical explanations of STS have focussed on empathy, emotional contagion, countertransference, and cognitive factors. Figley (1995b) argues that STS is a natural by-product of therapeutic engagement for trauma therapists, however there are several additional factors that increase the risk of STS. First, empathy is required for a worker to understand a client's experience. However, empathy predisposes a worker to emotional contagion, the transmission and experiencing of another's emotions at an unconscious level (Sabin-Farrell & Turpin, 2003). Second, the wide range of traumatic events to which trauma workers are exposed, means they are likely to face clients who have experienced events similar to those in their own lives. Trauma workers are more likely to meet people with a similar experience than if they were working with a non-traumatised population. Figley states that there is a danger of the worker overgeneralising personal experiences to the victim and thus paying less attention to the client's experience. He does not explain how this could contribute to STS, although it could be assumed that this process is similar to countertransference.

Although referring to vicarious traumatisation, McCann and Pearlman (1990) argue that disruptions to therapists' assumptions about the world may occur when they assimilate the victim's powerlessness and shattered assumptions into their own experience. However, Harris (1995) maintains that STS may occur when the trauma worker *fails* to integrate the victim's experience with his or her self. Harris argues that STS becomes chronic when the worker becomes resigned to believing that integration is impossible and assumes the role of a victim. Arvay (2001) argues that a therapist's vulnerability in the present may reactivate their vulnerability of the past, which is why it is important to understand the role that the trauma worker's own trauma history plays in their work with victims.

It has also been suggested that therapists may feel threatened by the material discussed by trauma victims and that cognitive theories of PTSD may help explain STS (Sabin-Farrell & Turpin, 2003). However, these authors state that further research is needed to assess whether these theories are applicable to STS. Despite its closeness to PTSD, surprisingly little of what is known about PTSD has been applied to the understanding of STS. The current study is important in that it will examine factors in relation to STS that have been

implicated in PTSD, such as peritraumatic distress and identification. As was found in Part 2 with bereaved survivors, it is hypothesised that peri-event reactions (distress at survivor reactions, identification with the survivors, and peritraumatic distress) will explain more variance in secondary traumatic stress than other peri-event, pre-event, and post-event variables. It is expected that each of the three reactions will independently predict STS because each is capable of disrupting peri-event–related information processing. However, peritraumatic distress is expected to be the biggest predictor of these, given its robust relationship with PTSD.

Implications of STS research

STS is not yet a recognised DSM-IV disorder, however it is reported to have serious implications for the well-being of trauma workers and the effectiveness of services provided by trauma support organisations (Bell, Kulkarni, & Dalton, 2003; Collins & Long, 2003; Sabin-Farrell & Turpin, 2003). It may be particularly devastating in voluntary organisations, such as VS, that experience a relatively high volunteer turnover and may have fewer resources to support their workers (Baird & Jenkins, 2003). An increased understanding of the aspects of sudden death work that relate to STS may help further the theoretical knowledge of STS and reduce the risk of traumatic stress symptoms among first responders.

7.3.3 Summary of Chapter 7

Working with survivors in the aftermath of a sudden death can be distressing for first responders, for example witnessing survivors' distress, identifying with survivors, and peritraumatic distress. Examples of distressing survivor reactions include attempted self-harm, uncontrollable crying (Stewart, et al., 2000), withdrawal, and denial (Wright, 1991). Evidence shows that identification can be expressed emotionally as well as cognitively, for example, becoming personally involved in helping a survivor. It is therefore expected that the identification scale developed for this study will reveal two types of identification: cognitive and emotional.

It is hypothesised that both distress at survivor reactions and identification with the survivor will contribute to an increased sense of threat and vulnerability for the first responder – in other words, increased peritraumatic distress. Although peritraumatic distress has yet to be studied in secondary victims, there is evidence that the reactions of

shame, helplessness, and vulnerability do exist in first responders who work with survivors. It is important to study peritraumatic distress in first responders because it is a strong predictor of PTSD and therefore may also predict STS.

First responders' distress while working with sudden death survivors may affect the type of support they offer survivors and their own long-term distress reactions. There is evidence that first responders may try to alleviate the survivor's distress in order to make themselves feel more comfortable, and less vulnerable and helpless. Unfortunately, first responders who focus on limiting survivors' distress may resort to doing and saying things that survivors find unhelpful. When survivors do not receive the immediate care they need, they may be at greater risk of both immediate and long-term distress, as shown in Part 2. However, there is another potential consequence of first responders' distress – it may contribute to their own STS. It is argued that all three sources of first responder distress examined in this study will predict STS, but that peritraumatic distress is likely to be the strongest predictor. Indeed, if peritraumatic distress disrupts the processing of trauma information resulting in PTSD, it is expected that it will have the same impact in relation to STS.

CHAPTER 8:
OBJECTIVES OF THE CURRENT STUDY

8.1 Aims

The main aim of this section is to identify the aspects of sudden death work that first responders find most distressing at the time of interacting with survivors (distress at survivor reactions, identification, and peritraumatic distress) and how this distress affects 1) the type of support they offer survivors (I CARE), and 2) their own secondary traumatic stress reactions up to 19 months later. Factors present in the police officers and VS workers before the sudden death (pre-event), during the interactions with survivors (peri-event), and after the sudden death (post-event) will be examined. Two secondary aims of this section are to 1) develop a scale that measures identification with survivors, and 2) to develop evidence-based guidelines that help first responders deliver needs-based psychological first aid to sudden death survivors, based on the I CARE acronym.

8.2 Hypotheses

1) Distress at survivor reactions, identification, and violent death will predict peritraumatic distress (PDI).

2) There will be two types of identification with survivors: cognitive and emotional identification. Emotional identification will be more closely associated with peritraumatic distress than cognitive identification.

3) Peritraumatic reactions (distress at survivor reactions, identification, and peritraumatic distress) will be related to less helpful behaviour towards survivors in the immediate aftermath (lower I CARE scores).

4) Peri-event reactions will explain more variance in secondary traumatic stress (STS) than other peri-event, pre-event, and post-event variables. Each peri-event reaction (distress at survivor reactions, identification, and peritraumatic distress) will independently predict STS, with peritraumatic distress being the biggest predictor.

CHAPTER 9:
METHOD

9.1 Research design

This part of the study also used a cross-sectional design and data was gathered by questionnaire. Issues relating to ethics, anonymity, and confidentiality are discussed in the method section of the bereaved survivors' part of this thesis (p 36).

First responder distress

Police National Headquarters (HQ) stated that involvement in this research was conditional on the premise that it would not involve police officers who were likely to be retraumatised by their participation. Police HQ chose to consult with its welfare office, which provides debriefing and counselling to police officers, in order to eliminate any officers thought to be at risk of retraumatisation in relation to the sudden death case in question. However, this did not result in the elimination of any participants. VS did not elect to eliminate any participants in the volunteer sample.

9.2 Participants

Police officers

New Zealand Police's statistician used a computerised random sampling technique to identify a list in random order of 650 police officers from a total population of 700 who had attended a sudden death (from natural causes, homicide, suicide, accident, sudden infant death, motor vehicle accident) between 1 July 2005 and 31 July 2006. The first 250 names on the randomly-generated list, which comprised the required sample, were deemed "fit" for participation because they had not had contact with a police welfare officer in relation to the sudden death in question.

After the initial sample of 250 sworn police officers was informed of the study, 9 requested not to be sent a questionnaire. A total of 165 of the remaining 241 police officers completed questionnaires, comprising a 68.5% response rate. The respondents were predominantly male (86.7%) and New Zealand European (80%), ranging in age from 23 to 59 years (M = 39.88 years, SD = 7.55). Their length of service in the police force

ranged from 1 to 39 years (M = 12.17 years, SD = 8.83). A full description of participant demographics is shown in Table 10.1 on p 115 of the Results section.

VS workers

VS database developer, Intergen, was instructed to identify a random sample of volunteer VS workers who had attended a sudden death crisis callout between 1 July 2005 and 31 July 2006. The same search criteria for "sudden death" and computerised random selection procedure used for the survivor sample were applied to the volunteer sample. Intergen produced a list in random order of 300 volunteers and their addresses, which are stored on the database, and gave these to VS national office. VS did not wish to contact volunteers who had left the organisation, so the first 250 individuals on the randomly-generated list, that records showed were still active, made up the final sample.

Questionnaires were sent to 240 VS workers nationwide; 10 of the original 250 requested not to be sent a questionnaire after being informed of the study. The total number of completed questionnaires was 148, representing a 61.7% response rate. The participating VS workers were mostly female (89.2%) and New Zealand European (82.4%), ranging in age from 20 to 82 years (M = 54.13 years, SD =13.08), with 1 to 17 years of service to VS (M = 4.76 years, SD = 3.90). A full description of participant demographics is shown in Table 10.1 on p 115 of the Results section

9.3 Questionnaire and Measures

The police and VS questionnaires were identical with the exception of items referring to work experience, organisational support after attending a sudden death case, and trauma history, which were modified for relevance to the appropriate organisation. There were 162 items in the police version of the questionnaire (see Appendix I, p 211) and 156 in the VS version (see Appendix L, p 232).

Demographic items

Participants were asked to identify their gender, age, ethnicity, marital status, religion/faith, educational qualifications, and whether they lived in a city or a provincial town/rural district. Because VS workers are not engaged in their role full-time, they were also asked about their employment status and income. Participants were informed that these questions were being asked for statistical purposes only.

First responder experience

Participants were asked about their experience as either a police officer or VS worker, including for how long they had been engaged in this work; and, for the VS workers, how many hours they were rostered on duty in a typical month. All participants were also asked how many sudden death cases they had worked on, in which they had face-to-face contact with survivors since they had joined the police force / VS and in the last 12 months.

Sudden death exposure

First responders were asked about the most recent sudden death case in which they interacted with survivors within seven days of the survivors learning of the death. They answered questions about when the case occurred, mode of death, and age (the estimated decade, e.g., 30 to 40, was accepted if they were unsure), and ethnicity of deceased. They were asked whether the case involved multiple deaths, whether they witnessed the death occur, saw the deceased's body, or knew if the body was grotesquely injured. Police were also asked whether they prepared the body for viewing or handled the deceased's property. In cases where more than one person died as result of a single incident, participants were instructed to complete the questionnaire in relation to one death only.

Exposure to survivors

Participants were asked how many survivors they had face-to-face contact with after the death in question. If there was more than one survivor, they were instructed to answer the remainder of the questionnaire in relation to the one survivor who had the biggest impact on them at the time. Participants identified the survivor's gender, age (decade estimates were again accepted), ethnicity, and relationship to deceased. They also identified the type of contact they had with the survivor (e.g., scene of the death; death notification), and whether they had a police officer or VS worker with them during their contact.

Interactions with survivors

The first responders completed the same 26-item I CARE scale of first responder actions and attitudes after the death that the bereaved survivors completed, as described in Chapter 4. The instructions to first responders were to identify on a scale of 0 (not at all)

to 4 (very much), the extent to which *they* engaged in the list of actions and attitudes in relation to the survivor of their most recent sudden death case (e.g., *Did you show concern and caring?*). If the item was not applicable to their situation, they could select NA.

Distress at survivor reactions

First responders were asked how distressed they were on a scale of 0 (not at all) to 4 (extremely) by witnessing 13 common acute grief reactions in survivors during their contact with them. Items were generated from the grief and trauma literature and included verbal and/or physical abuse directed at the first responder; denial or disbelief; and extreme calm. The final item allowed participants to name any other survivor reaction(s) that distressed them.

Peritraumatic distress

Peritraumatic distress at the time of involvement with the survivor was measured with the 13-item Peritraumatic Distress Inventory (PDI; Brunet et al., 2001), as described in Chapter 4. Norms for the PDI are available for police officers who completed it following a critical incident.

Identification with survivors

While the dangers of identifying with clients, survivors, or the deceased has long been acknowledged as a risk for the helping, first response, and rescue professions, published attempts to empirically measure identification have been sparse and limited to rescue workers in relation to the deceased they recover (Cetin, et al., 2005; Ursano, et al., 1999). These authors used a small scale developed by Ursano et al. (1999) to measure identification with the deceased using three items rated on a 4-point scale from 1 (not at all) to 4 (very much): *It could have been me*; *One of the victims reminded me of a close friend or relative*; and *It could have been a member of my family.*

The 11-item Identification with Survivors Scale was developed for the current study, including a modification of the three items from Ursano et al.'s scale. For example, one item in the current scale was *When I thought of the survivor, I couldn't help thinking "it could have been me" in their position".* The additional 8 items covered themes revealed in the identification research: relating to the person involved (McLaughlin, 2000; Pillow & Cassill, 2001), relating the person's experience to one's own life (Hodgkinson &

Shepherd, 1994), assuming characteristics of the person involved (Prigerson & Jacobs, 2001), the feeling that one should be suffering instead of the person involved (Cadwell, 1997), blurring professional boundaries (Cadwell, 1994), wanting to protect the person involved (Cadwell, 1997), becoming personally involved (McLaughlin, 2000), and imagining being friends with the person (Cadwell, 1994). These items were reviewed and approved by Robert Ursano as having suitable content validity.

Secondary traumatic stress

Secondary traumatic stress was measured with the Secondary Trauma Scale (STS; Motta, Hafeez, Sciancalepore, & Diaz, 2001; Motta, Newman, Lombardo, & Silverman, 2004), which requires participants to rate the frequency of 18 symptoms on a scale of 1 (rarely/never) to 5 (very often). Until recently, most secondary trauma studies have used measures of posttraumatic stress, such as the Impact of Event Scale-Revised (IES-R; Weiss, 2004). However, the IES-R assumes that the respondent has experienced a traumatic event, rather than been exposed to *others* who have experienced a traumatic event, as is the case with secondary traumatic stress. Recently, several dedicated measures of secondary or vicarious trauma have been developed, such as the Compassion Fatigue Self Test for Practitioners (CFST; Figley, 1995b), the Secondary Traumatic Stress Scale (STSS; Bride, Robinson, Yegidis, & Figley, 2003) and the Traumatic Stress Institute Belief Scale (TSI-BSL; Pearlman, 1996). However, these measures were developed specifically for psychotherapists or social workers and their relationships with clients, thus many items are not applicable to trauma workers in general, such as police officers or VS workers.

The STS is the only secondary trauma measure designed for non-clinicians and has been used with grandchildren of Holocaust survivors and therapists alike. Items are specific to the relevant stressor, for example, while the IES-R includes the item *I stayed away from reminders of it*, the STS equivalent item is *I force myself to avoid certain thoughts or feelings that remind me of (the person's) difficulties.* The original 20-item STS was developed using clinical, student, and therapist samples (Motta, et al., 2001; Motta, Kefer, Hertz, & Hafeez, 1999), with items based on the DSM-IV's PTSD criteria and the CFST (Figley, 1995). The latest 18-item version was tested on undergraduate students, with the purpose of developing cut-off scores. The STS has shown strong psychometric properties across samples, with an alpha reliability of .89 in the current version (Motta et al., 2004).

It has good discriminant validity with non-trauma measures (Motta et al., 2001) and is moderately correlated (.47 to .48) with PTSD (IES, Horowitz et al., 1979), suggesting that primary trauma measures do not adequately capture the experience of secondary trauma (Motta et al., 2004). Moreover, the scores of students who were primary trauma victims and above the cut-off on another PTSD measure (Modified PTSD Symptom Scale – Self Report; MPSS-SR; Resick, Falsetti, Resnick, & Kilpatrick, 1991), did not significantly correlate with scores on the STS, indicating that the STS discriminates between primary and secondary trauma (Motta et al., 1991). Test-retest data is not available. Participants can score a total of 90 on the STS: a score of 38 or higher is considered a moderate secondary traumatic response, while 45 or higher is a severe response (Motta et al., 2004).

Although the STS includes items that measure hyperarousal, the authors found that the items load onto just two factors: intrusion and avoidance (Motta & Joseph, 1998). The STS requires further validation with a range of populations exposed to secondary trauma, however its strong psychometric properties and cut-off scores make it a promising screening tool for aversive secondary trauma responses among trauma workers and the general population alike.

Current distress

As in the survivor questionnaire, current distress was controlled for with the 21-item Hopkins Symptom Checklist-21 (HSCL-21; D. E. Green, et al., 1988), as described in Chapter 4.

Post-death support

Participants were asked how helpful they found the following sources of support around the time of the sudden death: debriefing, supervision, talking with colleagues, talking with family/friends, and professional counselling. VS workers were asked to identify whether any supervision was "line supervision" (provided as a matter or course by VS) or "clinical supervision" (provided by referral to an outside agency). They rated the helpfulness of each item on a 5-point scale from 0 (not at all helpful/not applicable) to 4 (extremely helpful). Participants could indicate if the item was not applicable to their case by selecting NA.

Personal trauma history

Lifetime exposure to traumatic events

There were 18 items assessing lifetime exposure to traumatic events in the police version of the questionnaire and 11 in the VS version. Both versions included the 9-item Traumatic Stress Schedule modified by Stephens and colleagues (Huddleston et al., 2007; Stephens & Miller, 1998) used in the survivor questionnaire and described in Chapter 4.

An additional seven items in the police version were taken from an expanded version of the TSS used in Stephens' (1996) research with New Zealand Police, which included six items based on circumstances requiring mandatory debriefing under the New Zealand Police's Trauma Policy. These are: deliberate killing by police officers, deliberate or accidental death of a police officer, accidental death or injury of a member of the public by a police officer, work with victims of disturbing homicides, attendance at severe accidents, and disaster victim identification work. The seventh item from Stephens (1996) was chosen to reflect the chronic nature of stressors in police work, such as child abuse or domestic violence cases, which may occupy the officer over a long period of time. It was considered important to include these additional items because occupational stress is a major factor in police traumatic stress (Violanti, 1996) and it is vital to identify any specific aspects of police work which may correlate with greater traumatic stress induced by sudden death work.

Both versions of the questionnaire contained two further items, recognising the possibility that the participants may have themselves been sudden death survivors at some stage in their lifetime. Figley (1995b) has noted that a "match" between events from one's past and cases in one's work may be a risk for secondary traumatic stress. Respondents were asked whether they had ever been officially notified of the death of someone close to them, or viewed the body of someone they knew.

Trauma resolution

Finally, all first responders were asked to identify which of the listed traumatic events were most distressing for them and then answer four items about resolution of this event, as per the survivor version of the questionnaire.

9. 4 Procedure

Police officers

Police National Headquarters posted an introductory letter (see Appendix G, p 206) about the study to the internal mailbox of each of the 250 officer randomly selected for the study. Participants were informed that their name and contact details would be passed to the researcher for the purposes of sending a questionnaire unless they notified HQ within two weeks that they wished to be excluded. Two weeks later, HQ passed on the names and internal mailbox addresses of those who had not excluded themselves from the research (n = 241). The researcher then packaged and addressed an envelope containing an information sheet (see Appendix H, p 207), resource sheet (Appendix H, p 209), questionnaire, and postage-paid return envelope and gave these to HQ to distribute via the internal mailbox system again. Reminder postcards (see Appendix E, p 199) were sent to the 241 participants two weeks after this via the same procedure.

VS workers

The national office sent an introductory letter to the 250 randomly selected participants, informing them of the upcoming study (see Appendix J, p 227) and that they should notify the national office within 10 days if they did not wish their name to be passed to the researcher for the purpose of sending a questionnaire. After this time, the names and addresses of the 240 volunteers who had not excluded themselves were forwarded to the researcher, who posted an enveloped containing an information sheet (see Appendix K, p 228), resource sheet (Appendix K, p 230), questionnaire, and postage-paid return envelope directly to each participant. Reminder postcards were posted to each participant two weeks later.

CHAPTER 10:
RESULTS

Chapter overview

As with the survivor study, this chapter is divided into two sections: 1) descriptive and background statistics, and 2) hypothesis testing analyses. The descriptive results are organised in five sections: control variable, pre-event, peri-event, post-event variables, and the outcome variable. For economy reasons, it was decided to combine the data for police and VS workers, however any significant differences between the groups on key measures are shown in Table 10.5 (p 122).

The Statistical Package for the Social Sciences (SPSS) Graduate Pack 15.0 was used for data analyses. As with the survivors' study, only correlations significant at $p < .01$ are reported, unless specified, and all correlational analyses are Pearson's, two-tailed. All the measures were normally distributed. No alterations were made, hence any outliers were retained and missing data were recorded as such.

10.1 Descriptive and Background Analyses

10.1.1 CONTROL VARIABLES

It is acknowledged that retrospective ratings of distress may be influenced by sudden death caseload in the last 12 months, lifetime trauma and trauma in the last 12 months, time elapsed since the last sudden death and completion of the questionnaire, and general psychological distress at the time of completing the questionnaire.

Current psychological distress was the only variable that had any influence on key measures, and, accordingly, will be controlled for in subsequent analyses. As shown in Table 10.8 (p 129), it was related to distress at survivor reactions, identification with the survivor, peritraumatic distress, and STS. HSCL-21 scores ranged from 21 to 69 ($M = 27.35$, $SD = 7.79$), with no significant differences between police and VS workers. The scale had high internal consistency of $\alpha = .93$.

10.1.2 PRE-EVENT VARIABLES

Demographic and service variables

The demographic composition and service-related variables of both samples is shown in Table 10.1 (p 115). Police officers comprised 52.7% of the sample. Police were more likely to be male (χ^2 (1) = 176.60, p <.01), younger (t (300) = -11.37, p <.01), have had more years of experience t (299) = 9.47, p <.01), and have had worked on more sudden death cases than the VS workers (χ^2 (5) = 70.33, p <.01). Most police officers (56.1%) had worked on more than 20 sudden death cases where they had face-to-face contact with survivors in their careers, with an average of 4.59 (SD = 3.88) in the last 12 months. Most VS workers (31.3%) had worked on 2 to 5 sudden death cases, with an average of 3.41 cases in the last year (SD = 3.01). The time elapsed since first responders' last case, for which they answered questions about in this study, was 1 to 16 months (M = 4.78, SD = 3.74).

Most police officers were married or living with a partner, Christian, and had no tertiary education qualifications. VS workers were less likely than police to be married or living with a partner and more likely to be separated/divorced or widowed. VS workers were also less likely than police officers to have no religion or faith but more likely to be Christian or have personal spiritual beliefs. While there were a greater proportion of VS participants with no educational qualifications, those with a higher education were more likely than police to have a postgraduate qualification. The majority of all participants worked in rural regions or provincial towns. Most of the VS volunteers worked full-time, earned less than $15,000 per year, and were rostered on VS duties for an average of 109.78 hours per month (SD = 81.82).

Trauma history

Total scores were computed for the TSS (11 items common to both groups and the 18-item police version) based on the number of traumatic events each participant had experienced in their lifetime and in the last 12 months. There were no significant differences between the number of events experienced (lifetime or last 12 months) by police and VS in the 11-item versions (see Table 10.5, p 122), however, as shown in Table 10.2, the types of events differed between each group. Subsequent analyses use the 11-item version because it was common to both first responder groups and because the 18-item police version was unrelated to any key variables. This 11-item measure was

Table 10.1 *Summary of demographic and service information of first responders*

	Police (n = 165)		VS (n = 148)		Total (n = 313)	
	n	%	n	%	n	%
Group						
Police					165	52.7
Victim Support					148	47.3
Gender						
Male	143	**86.7**	16	10.8	159	50.8
Female	22	13.3	132	**89.2**	154	49.2
Age						
Mean (SD)	39.88	(7.55)	54.13	(13.08)	46.58	(12.69)
Ethnicity						
NZ European	132	**80.0**	122	**82.4**	254	81.2
Maori	20	12.1	14	9.5	34	10.9
Pacific Island	3	1.8	2	1.4	5	1.6
Other	10	6.1	10	6.7	20	6.4
Marital Status						
Married/living with partner	143	**86.7**	97	**65.5**	240	76.7
Single	13	7.9	16	10.8	29	9.2
Separated/divorced	8	4.8	16	10.8	24	7.7
Widowed	1	0.6	19	12.8	20	6.4
Religion						
None	55	33.3	16	10.9	71	22.8
Personal spiritual beliefs	24	14.5	33	22.4	57	18.3
Christian	82	**49.7**	92	**62.6**	174	55.8
Other	4	2.4	6	4.1	10	3.10
Highest Educational Qualification						
None	9	5.5	36	25.0	45	14.6
School Cert/ 6th Form Cert/Bursary	85	**51.8**	29	20.1	114	39.4
Trade/prof cert	45	27.3	40	**27.8**	85	27.5
Bachelor degree	12	7.3	9	6.3	21	6.8
Postgraduate	14	8.5	22	15.3	36	11.7
Length of Service (years)						
Mean (SD)	12.17	(8.83)	4.76	(3.90)	8.58	(7.82)
Rank						
Probationary Constable	7	4.3				
Constable	93	**57.1**				
Senior Constable	27	16.6				
Sergeant	28	17.2				
Senior Sergeant	8	4.9				
Location						
City	74	45.7	60	40.8	134	43.4
Rural/provincial town	88	**54.3**	87	**59.2**	175	56.6
Employment*						
Full-time			53	**36.1**		
Part-time			40	27.2		
Retired			35	23.6		
Unemployed/beneficiary			7	4.7		
Other			12	8.2		
Annual income*						
$0-$15,000			47	**32.9**		
$15,001-$30,000			33	23.1		
$30,001-$45,000			37	25.9		
$45,001-$60,000			10	7.0		
$60,001-$75,000			10	7.0		
$75,001+			6	4.2		
Rostered hours per month						
Mean (SD)			109.78	(81.82)		

Note: Highest figures in each group are displayed in bold

* Employment and income data not collected for police officers as rank was considered the more appropriate variable

related to having worked on more sudden death cases (r = .15) but no other demographic or service-related variables.

Police

The most frequently experienced event was working on a case involving multiple accident victims/mutilated bodies (see Table 10.2, p 117). Of the participants, 31.4% reported at least one other event, not previously mentioned, that had been particularly distressing. These were often either work incidents involving grotesque death, such as recovering a body from a car submerged in a river to find that it had eels attached to it, vivid dreams involving death, and suicides by firearm; or personal issues such as marital separation/divorce. Nearly three-quarters of police officers had experienced one of the 18 events in the last 12 months (74.5%), the most common of which was working on cases with multiple victims or mutilated bodies at accidents (33.9%).

VS

The most frequently experienced event was having viewed the body of someone they knew (90.4%) (see Table 10.2, p 117). Examples of "other" events that VS workers found distressing tended to involve family members, such as having a relative taken hostage in another country, the rape of one's daughter, and sudden deaths and suicides of multiple family members. Trauma experience was not related to any demographic variables. Among VS workers, 38.2% had experienced a traumatic or potentially distressing event in the last 12 months, the most common of which was viewing the body of someone they knew (22.1%).

Trauma resolution

Participants nominated the most distressing event they had experienced and were measured on the degree of resolution they now felt in relation to this event. The mean was 10.81 (SD = 3.95), with VS workers showing significantly less resolution (M = 9.55, SD = 3.72) than police officers (M = 11.92, SD = 3.83) (t (287) = 2.37, p <.01) (see Table 10.5, p122). Scale reliability was α = .84. Lower resolution was associated with greater experience of lifetime trauma (r = -.31), trauma in the last 12 months (r = -.21), being female (r = -.23), and older age (r = -.20).

Table 10.2. *Traumatic events experienced by police officers and VS workers*

Event	% ever experienced	% in last 12 months	% rated as most distressing
Military combat			
Police	3.6	0.0	0.0
VS	0.0	0.0	0.0
Robbery/mugging/holdup			
Police	8.5	0.0	0.0
VS	13.6	1.4	2.3
Assault			
Police	79.1	23.9	6.7
VS	30.4	1.4	6.1
Sexual abuse			
Police	5.5	0.0	2.7
VS	24.7	0.0	6.8
Injury or loss by fire			
Police	10.4	0.0	0.7
VS	15.7	0.7	3.0
Injury or loss by disaster			
Police	13.4	1.8	0.7
VS	19.9	1.4	1.5
Police officer sudden death			
Police	35.8	1.2	4.0
VS	-	-	-
Family/friend sudden death			
Police	52.1	5.5	12.1
VS	57.2	4.1	25.0
Motor vehicle accident			
Police	24.8	1.2	1.3
VS	22.4	2.0	4.5
Officer killed in line of duty			
Police	2.4	0.0	0.0
VS	-	-	-
Civilian killed/injured by police			
Police	12.8	3.0	1.3
VS	-	-	-
Homicides: Multiple/disturbing			
Police	43.3	12.8	7.4
VS	-	-	-
Accidents: Multiple/mutilated bodies			
Police	**83.6**	**33.9**	**22.4**
VS	-	-	-
Disaster victim identification			
Police	11.5	0.6	0.6
VS	-	-	-
Chronic distress			
Police	45.1	27.4	3.6
VS	-	-	-
Received death notification			
Police	17.6	4.2	1.8
VS	32.0	2.7	9.8
Viewed body of known person			
Police	82.4	20.0	9.7
VS	**90.4**	**22.1**	10.6
Other			
Police	31.4	8.2	18.8
VS	45.1	10.6	**29.5**

Note: Highest figures in each group are displayed in bold

The most common "most distressing" event for police was working on a case involving multiple accident victims/mutilated bodies (22.4%), although this was unrelated to trauma resolution. The most common distressing event for VS workers was "other" distressing/traumatic experience (29.5%), which was related to lower trauma resolution (r = -.30).

10.1.3 PERI-EVENT VARIABLES

This section describes the nature of the sudden death case for which participants answered questions about, including variables relating to the deceased, the survivor, and the first responder's reactions to the survivor in the immediate aftermath. Descriptions of the most recent sudden death cases where participants had face-to-face contact with survivors are shown in Table 10.3 (deceased variables, p 119) and Table 10.4 (survivor variables, p121), with significant differences between the two participant groups reported.

10.1.3.1 Most recent sudden death case

Deceased variables

Most deaths fell into the category of what is commonly known as "violent death" (65.3%) (suicide, transport accident, other accident, manslaughter / homicide), while the most common individual cause of death for both groups was health-related (34.7%) (see Table 10.3, p 119).

The mean age of the person who died was 37.77 years (SD = 23.35 years). It was correctly assumed that not all participants would know or recall the deceased's exact age (31 cases were missing in the police data and 48 in the VS data), however all participants were able to provide an estimated decade age (e.g., 20s or 20-30), which were used in subsequent analyses. In most cases, the deceased was a New Zealand European (66.3%) and was the only person who died in the incident. Only seven first responders witnessed the death occur, however, most saw the body (65.7%) and this was significantly more likely among police officers (97.4%) than VS workers (36.6%) (χ^2 (1) = 100.55, p <.01). Likewise, police were more likely to report that the body was grotesquely injured (e.g., burnt, crushed, mutilated, or dismembered) or decomposed (28.7% vs. 19.2%) (χ^2 (2) = 19.82, p <.01). Most police officers were involved in handling the deceased's property as part of the case, and about one third cleaned or prepared the body for viewing. Each participant was given a score for "death exposure"

Table 10.3 *Summary of variables relating to the deceased in most recent sudden death case*

	Police		VS		Total	
	n	%	n	%	n	%
Cause of death						
Non-Violent	59	35.8	49	33.3	108	34.7
Health-related	48	**29.3**	41	**27.9**	89	28.6
Sudden infant death (SIDS)	8	4.9	1	0.7	9	2.9
Unknown causes	2	1.2	6	4.1	8	2.6
Other	1	0.6	1	0.7	2	.6
Violent	105	64.0	98	66.7	203	65.3
Suicide	37	22.4	36	24.5	77	24.8
Homicide/ manslaughter	13	7.9	12	8.2	26	8.4
Transport/ road accident	14	8.5	38	**25.9**	75	24.1
Other accident	41	**25.0**	12	8.2	25	8.0
Deceased's age (years)						
0-9	11	6.7	10	6.8	21	6.8
10-19	24	14.6	24	**16.4**	48	15.5
20-29	17	10.4	18	12.3	35	11.3
30-39	20	12.2	23	15.8	43	13.9
40-49	25	**15.2**	19	13.0	44	14.2
50-59	17	10.4	24	**16.4**	41	13.2
60-69	19	11.6	9	6.2	28	9.0
70-79	21	12.8	13	8.9	34	11.0
80+	10	6.1	6	4.1	16	5.2
Mean (SD)	39.28	(23.19)	35.75	(23.52)	37.77	(23.35)
Deceased's ethnicity						
NZ European	105	**64.0**	102	**68.9**	207	66.3
Maori	43	26.2	30	20.3	73	23.4
Pacific Island	8	4.9	3	2.0	11	3.5
Other	8	4.9	13	8.8	21	6.8
Multiple deaths						
No	148	**90.2**	136	**93.2**	284	91.6
Yes	16	9.8	10	6.8	26	8.4
Witness death occur						
No	159	**95.5**	143	**97.9**	302	97.7
Yes	4	2.5	3	2.1	7	2.3
See body						
No	14	8.5	92	**63.4**	106	34.3
Yes	150	**91.5**	53	36.6	203	65.7
Body grotesquely injured						
No	114	**69.5**	96	**65.8**	210	67.7
Yes	47	28.7	28	19.2	75	24.2
Unsure	3	1.8	22	15.1	25	8.1
Clean/prepare body						
No	107	**65.2**				
Yes	57	34.8				
Handle deceased's property						
No	45	27.6				
Yes	118	**72.4**				

Note: Highest figures in each group are displayed in bold

based on whether or not the case involved multiple deaths, their witnessing the death, viewing the body, and the body being grotesquely injured. Police officers had significantly higher death exposure in their most recent case than VS volunteers ($t(280) = 6.89$, $p < .01$). Several participants commented on how working with death affected them. For example, a police officer wrote, "I am something of a veteran and not affected by deaths to any degree in comparison to my early years in the police".

Survivor variables

A description of the variables relating to the nominated survivor in the most recent sudden death case is shown in Table 10.4 (p 121). The number of survivors that participants had face-to-face contact with following their most recent sudden death case ranged from 1 to 20 ($M = 3.75$, $SD = 3.08$). Most contact occurred at the scene of the death, although follow-up support (usually soon after the death) was the most common support for VS workers. Police officers had an average of 4.40 types of contact with survivors ($SD = 0.51$) out of a possible 7, while VS workers averaged 4.85 types of contact ($SD = 0.05$) out of a possible 8. One of the options was "other" contact, for which examples included a small-town police officer who said the survivor sometimes visited the police station and a VS worker who accompanied the survivor while organ donation was discussed.

In most cases, respondents chose to answer questions about an immediate family member of the deceased (80.6%), typically a New Zealand European (70.3%), who was female (62.2%). Survivors' ages ranged from 11 to 85 years ($M = 42.51$, $SD = 17.30$). Like the deceased ages, decade years are used for subsequent analyses. Most of the police officers had another officer with them at some time during their interactions with the survivor (62.2%), but only 22.6% were accompanied at any stage by a VS worker. Conversely, most VS volunteers had neither a colleague (61.9%) nor a police officer present (40.8%) when they interacted with the survivor.

Comments from participants regarding this section included a police officer who wrote, "I treat all sudden deaths as if it was a family member as that's what I would like if another member of the police attended a sudden death of one of my family members." Another commented that the questionnaire "seemed a bit over the top – death is part of the job". A VS worker stated, "I am not 'stone cold' and emotionless but am able to deal with a situation to the best of my ability and then move on".

Table 10.4 *Summary of variables relating to the survivor in most recent sudden death case*

	Police		VS		Total	
	n	%	n	%	n	%
Contact with survivor						
Scene of death	105	**64.8**	60	40.8	165	53.4
Death notification	33	20.4	36	24.5	69	22.3
Body viewing/ identification	59	36.4	26	7.7	85	27.5
Interview for investigation	58	35.8				
Coroner's inquest	21	13.0	4	2.7	25	8.1
Court trial	6	3.7	5	3.4	11	3.6
Follow-up support			106	**72.1**		
Victim Impact Statement			6	4.1		
Other	10	6.2	6	4.1	16	5.2
Survivor's relationship to deceased						
Immediate family	132	**81.5**	117	**79.6**	249	80.6
Other family	9	5.6	7	4.8	16	5.2
Friend	15	9.3	12	8.2	27	8.7
Work colleague	2	1.2	4	2.7	6	1.9
Other	4	2.4	7	4.8	11	3.6
Survivor's gender						
Male	67	41.4	48	33.3	116	37.8
Female	95	**58.6**	64.9	**66.7**	191	62.2
Survivor's age (years)						
10-19	9	5.6	9	6.2	18	5.9
20-29	22	13.7	14	9.6	36	11.7
30-39	29	18.0	30	20.5	59	19.2
40-49	35	**21.7**	33	**22.6**	68	22.1
50-59	30	18.6	33	**22.6**	63	20.5
60-69	27	16.8	13	8.9	40	13.0
70-79	8	5.0	13	8.9	21	6.8
80-89	1	0.6	1	0.7	2	0.7
Mean (SD)	42.41	(16.92)	42.67	(18.00)	42.51	(17.30)
Survivor's ethnicity						
NZ European	111	**68.1**	107	**72.8**	218	70.3
Maori	40	24.5	24	16.3	64	20.6
Pacific Island	6	3.7	3	2.0	9	2.9
Other	6	3.6	13	8.8	19	6.2
Another colleague present						
No	61	37.4	91	**61.9**	152	49.0
Yes	69	**42.3**	48	32.7	117	37.7
Sometimes	33	20.2	8	5.4	41	13.2
VS worker present						
No	123	**77.4**				
Yes	19	11.5				
Sometimes	19	11.5				
Police officer present						
No			60	**40.8**		
Yes			49	33.3		
Sometimes			38	25.9		

Note: Highest figures in each group are displayed in bold

10.1.3.2 First responder reactions in the immediate aftermath

Distress at survivor reactions

These distress scores ranged from 0 to 24 and were skewed towards to the low end (M = 4.21, SD = 5.07), indicating little distress, with no significant differences between each group of first responders (see Table 10.5). The five most distressing reactions in descending order were crying/screaming, helplessness, asking questions, guilt, and shock/panic. Police officers were more likely to find crying/screaming distressing than VS workers (M= .75, SD=.07 vs M= .50, SD = .07, t (311) = 2.39, p <.05). Respondents were able to nominate any other survivor reaction that they found distressing. Examples included a police officer who was distressed by a teenage girl wanting to help remove the decomposing body of her grandmother from the scene, and a VS worker who was distressed by surviving family blaming the victim for his death. The scale had a reliability of α = .83. Distress at survivor reactions was positively related to years of service (r = .17), current distress (r = -.30), emotional identification (r = .29), cognitive identification (r = .23), total identification (r = .32), peritraumatic distress (r = .47), STS (r = .45), and inversely related to trauma resolution (r =-.23), deceased age (r =-.17), and I CARE (r = -.21).

Table 10.5 *Group comparisons on key measures*

	Police		VS		Difference
	M	SD	M	SD	t
Current distress	27.61	7.27	27.06	8.34	.62
Trauma history	3.28	1.61	3.50	1.81	-1.01
Trauma resolution	11.92	3.83	9.55	3.72	5.33**
Survivor reactions	4.51	5.13	3.87	4.99	1.12
Cognitive ID	2.81	3.00	3.16	3.51	-.93
Emotional ID	4.33	4.09	6.31	5.19	-3.75**
Peritraumatic distress	.33	.30	.41	.34	-2.19
I CARE	3.33	.37	3.65	.33	-7.78**
STS	21.92	5.37	21.17	4.70	1.30

p <.05* p <.01**

Identification with Survivors Scale

As one of the goals of this study was to develop a scale for measuring identification with survivors, the 11 items in the Identification with Survivors Scale were subjected to principal components analysis (PCA) separately for each sample. The suitability of the data for PCA was confirmed by checking for coefficients of .3 and above, a Kaiser-Meyer-Olkin value of .6 and above, and a significant Bartlett's Test of Sphericity value (Tabachnick & Fidell, 1989).

PCA revealed three factors with eigenvalues above 1, explaining 64.69% of the total variance. However, it was decided to extract two factors to reduce cross-loadings. This was supported by both a screeplot inspection and parallel analysis, and the fact that two factors still explained 54.15% of the variance. Varimax rotation produced two clear factors, defined by loadings above 0.4 (see Table 10.6, p 124). The same items for each factor were also present when the factor analysis was repeated for both police officers and VS workers separately. The first factor consisted of eight items, which related to emotional and personal over-involvement with the survivor, for example, "*I imagined being friends with the survivor*" and "*I feared blurring the boundary between my life and my work with the survivor*". The second factor comprised the three items that related to imagining that the survivor could have been one's self, one's family member, or one's friend, for example, "*When I thought of the survivor, I couldn't help thinking "it could have been me in their position"*". The two factors supported the first hypothesis, that identification could be separated into two types: emotional and cognitive. Factor 1, *emotional identification*, had a reliability of $\alpha = .76$ and factor 2, *cognitive identification*, had a reliability of $\alpha = .88$. The total scale reliability was $\alpha = .80$.

Scale descriptives

The scale had a possible score range of 0 to 44, with the total being the sum of all items. The mean total was 8.13 (SD = 6.52), while the mean score for emotional identification (possible range 0 – 32) was 5.26 (SD = 5.26) and for cognitive identification (possible range 0 – 12) it was 2.98 (SD = 3.23). VS workers scored significantly higher on total identification (M = 9.29, SD = 7.19 vs 7.10, SD = 5.69; t (305) = -.3.00, p <.01), and emotional identification (M = 6.31, SD = 5.19 vs M = 4.33, SD = 4.09; t (308) = -3.75, p <.01) (see Table 10.5, p 122). However, when controlling for first responder group,

emotional identification was related to age (r = .22), trauma history (r = .22), trauma resolution (r = -.30), current distress (r = .29), distress at survivor reactions (r = .31), peritraumatic distress (r = .47), and STS (r =.30), however trauma history was unrelated after controlling for resolution. Emotional identification was unrelated to any specific traumatic experience. Partial correlations showed that age continued to be associated with emotional identification after controlling for trauma history and resolution (r = .20 and .16 respectively). Cognitive identification was also related to current distress (r = .35), and when controlling for group was also related to distress at survivor reactions (r =.26) peritraumatic distress (r = .44), and STS (r =.37).

Table 10.6 *Factor loading comparison for Identification with Survivors Scale (IDS) for first responders using varimax rotation.*

		Factor 1 Emotional Identification	Factor 2 Cognitive Identification
No	Item		
10	Personally involved	**.75**	.04
8	Blurred boundary	**.71**	.03
11	Imagined being friends	**.70**	.06
7	Should have been me	**.69**	.19
6	Assumed characteristics	**.65**	.18
9	Wanted to protect	**.61**	.14
4	Relate to survivor	**.47**	.31
5	Reminded me of experience	**.46**	.31
2	Could have been family	.11	**.92**
3	Could have been friend	.10	**.90**
1	Could have been me	.20	**.82**
Eigenvalues		4.11	1.85
Total variance explained		37.36%	16.79%

Peritraumatic distress

The mean PDI score was .37 (SD = .31) and reliability was α = .71. VS workers scored significantly higher than police (M = .41, SD = .34 vs M = .33, SD = .30; t (307) = -.2.19, p <.05) (see Table 10.5, p 122). Like the survivors, the most frequently endorsed (*slightly true* and above) item for both groups was *I felt sadness and grief* (81.2% for police and 92.6% for VS).

When controlling for group, peritraumatic distress was associated with age of deceased (r = -.26), death exposure (r = .23), survivor age (r = -.17), trauma history (r = .15, p <.05), trauma resolution (r = -.19), current distress (r = .49); and emotional (r = .47), cognitive (r = .44), and total identification (r = .54). However, the relationships between peritraumatic distress and both trauma history and trauma resolution were non-significant when controlling for emotional identification. PDI scores were also related to violent death (r = .25) irrespective of group, and this was independent of distress at survivor reactions (r = - .21), death exposure (r = -.23) and whether or not the police officers prepared the body (r = -.22). There were no significant differences between the types of violent death and peritraumatic distress.

10.1.3.3 Survivor support

I CARE Scale

The mean score for first responders' helpfulness of interactions with survivors was 3.48 (SD = .38), with scores ranging from 1.92 to 4.00 out of a possible 4. Reliability was α = .70. VS workers scored significantly higher than police officers (M = 3.65, SD = .33 vs M = 3.33, SD = .36, t (295) = -7.78, p <.01) (see Table 10.5, p 122). The most frequently endorsed items (responses of *a little bit, quite a lot,* and *very* much) for police were *show concern and caring* and *listen* (97% each), while for VS it was *listen* (99.3%). The least frequently endorsed item for the police was *telling the survivor that the death was for the best* (2.4%) and for VS workers it was *speak using words or terminology that were difficult to understand* (0.7%).

When controlling for group differences, engagement in helpful strategies was associated with reporting less distress at survivor reactions (r = -.20). Notably, even when controlling for group, first responders who showed more distress at survivor reactions were more likely to engage in interactions that studies show are unhelpful to survivors (or "cure" strategies), including using words/terminology that were difficult to understand (r = -.19), discouraging body viewing (r = -.16), preventing the survivor from talking about the death (r = -.14, p <.05), and showing insensitivity (r = -.16). While peritraumatic distress and identification were unrelated to I CARE, when controlling for group, each was related to a number of individual items representing "cure" behaviours. For example, higher scores on each were associated with

insensitivity (r = -.13, p <.05 and -.17, p <.01 respectively). Higher peritraumatic distress was associated with preventing the survivor from getting upset (r = -.12, p <.05) and discouraging body viewing (r = -.18), while higher cognitive identification was related to preventing the survivor from talking about the death (r = -.13, p <.05).

Although emotional identification was unrelated to I CARE scores, a number of items were positively associated with emotional identification, including providing information on grief (r =.22), follow-up support (r = .18), and contact details (r = .16); encouraging survivors to make their own decisions (r = .22), being helpful but not intrusive (r = .18), expressing condolences (r = .17), showing concern and caring (r = .17), and listening (r = .17).

10.1.4 POST-EVENT VARIABLES

Post-death support

Of the six types of support appropriate to police around the time of the sudden death, police officers engaged in an average of 3.29 (SD = 1.61) of these. Engaging in more support strategies was associated with experiencing greater distress at survivor reactions (r = .22), peritraumatic distress (r = .32), and identification (r = .22). Of the seven types of support relevant to VS workers, the mean number of strategies used was 3.89 (SD = 1.32). Total support was associated with higher current distress (r = .25) and peritraumatic distress (r = .29).

A total helpfulness of support score was calculated by summing the responses from each item for each respondent, with *not applicable* responses recoded as 0 to form the category *not at all helpful/not applicable.* The possible range for police officers for helpfulness of support was 0 to 24, with the scores ranging from 0 to 20 (M = 7.49, SD = 4.69). VS workers' scores for helpfulness of support ranged from 0 to 23, out of a possible 28. The mean total helpfulness of support was 11.72 (SD = 5.01). As shown in Table 10.7 (p 127), for both police and VS, talking with colleagues was the most frequently used support strategy and was rated the most helpful (*slightly helpful* or above), while the least helpful was counselling arranged by self (*not at all helpful*). Given these similarities, the helpfulness of support scales were combined for both first responder groups for future analyses. Helpfulness of support was related to fewer sudden death cases (r = -.15), current distress (r = .17), emotional identification (r =

.22), total identification (r = .22), and peritraumatic distress (r = .30). Interestingly, the only individual strategy related to STS was talking with family/friends STS (r = .16) which was also related to greater peritraumatic distress (r = .22).

Table 10.7 *Post-death support in police officers and VS workers*

Support strategy	Frequency (%)	% rated at least slightly helpful	% rated not at all helpful
Debriefing			
Police	44.2	76.4	23.6
VS	86.0	94.3	5.7
Talking with colleagues			
Police	**89.5**	**98.6**	1.4
VS	**86.9**	**98.4**	1.6
Talking with family/friends			
Police	82.3	90.4	9.6
VS	56.2	86.4	13.6
Professional counselling arranged by self			
Police	13.5	40.9	**59.1**
VS	16.0	56.5	**43.5**
Personal strategies			
Police	72.0	94.1	5.9
VS	75.4	98.1	1.9
Counselling provided by Police			
Police	29.0	57.4	42.6
Line supervision			
VS	79.9	91.3	6.9
Clinical supervision			
VS	25.7	73.0	6.9

Some participants wrote comments about the support available to them, indicating frustration with their employer, such as "counselling provided by Police – non-existent"; "the Police offered me support six to nine months after the sudden death. I was angry about that. It's unacceptable."; and "debriefing didn't happen – Police useless in this respect." Other comments highlighted the need for support from colleagues, friends, and family, such as "the cumulative effect of bad news creates a need for positive friends and atmosphere outside the job". In a similar vein, a VS

worker wrote "debriefing used to be great, now not done as regularly," and "black humour has increased as a way of dealing with these situations."

10.1.5 OUTCOME VARIABLE

Secondary traumatic stress

The STS has a possible range of 18 to 90, with cut-offs suggested by the authors of 38 or more for mild to severe STS and 45 and above for severe STS (Motta, et al., 2004). Scores ranged from 18 to 42 (M = 21.57, SD = 5.07) and there were no significant differences between the two groups of first responders (see Table 10.5, p 122). Only 11 first responders (3.5%) scored in the mild to severe range. Scale reliability was $\alpha = .80$.

The most frequently endorsed (*at times/not sure/often/very often*) STS symptom was *I would feel threatened and vulnerable if I went through what the survivor went through* (40.3%). STS was related to younger age of deceased (r = -.15), lower trauma resolution (r = -.18), lower I CARE (r = -.17); emotional (r = .28), cognitive (r = .36), and total identification (r = .38); distress at survivor reactions (r = .45), peritraumatic distress (r = .53), current distress (r = .58), and finding it helpful talking to family/friends as a support strategy (r =.16). STS was unrelated to any specific traumatic experience.

Several police officers wrote comments on their questionnaires describing the long-term effects of dealing with death and survivors. "As a rural cop I deal with the deaths of a close-knit community that I know very well. There is not a road in my district that I can drive down without remembering a scene of a fatal crash or a death in a house," wrote one participant.

Table 10.8 *Correlations between key first responder variables*

	Current distress	Group	Trauma history	Trauma resolution	Experience	Violent death	Death exposure	Distress at survivor reactions	Cognitive identification	Emotional identification	Peritraumatic distress	Family/friends support	STS
1	-	-.04	.19**	-.25**	.07	.04	.11	.30**	.35**	.29**	.48**	.14*	.58**
2		-	.06	-.30**	-.47**	.03	-.38**	-.06	.05	.21**	.12*	-.36**	-.07
3			-	-.31**	.10	-.07	.08	.08	.04	.21**	.16**	-.00	.15*
4				-	.06	-.02	.08	-.23**	-.09	-.30**	-.21**	.03	-.18**
5					-	.14*	.23**	.17**	.04	-.03	.09	.12*	.12*
6						-	.23**	.14*	.02	-.02	.25**	-.07	.14*
7							-	.14*	.07	-.03	.15*	.18*	.11
8								-	.23**	.29**	.47**	.17**	.45**
9									-	.35**	.44**	.06	.36**
10										-	.48**	.16*	.28**
11											-	.22**	.53**
12												-	.16**
13													-

*p <.05 **p <.01

10.2 Hypothesis Testing

10.2.1 SELECTION OF VARIABLES FOR REGRESSION MODEL

As with the survivor section, the aim was to select a single group of variables that could be tested as a model in explaining the variance of peritraumatic distress, I CARE and STS. Variable selection was based on 1) theoretical significance with these two variables, as discussed in Chapter 7; and 2) strength of relationship with these two variables in this study. Correlations between the selected variables are shown in Table 10.8 (p 129). The final model of 12 variables is shown in Table 10.9. Note that first responder group has been coded as police = 0, VS = 1.

Table 10.9 *Grouping of variables for hierarchical multiple regression*

Step	Variables
1	Control variable
	Current psychological distress
	Group (police vs VS)
2	Pre-event
	Trauma history
	Trauma resolution
	Experience (years of service)
3	Peri-event
	Violent death
	Death exposure
4	Peri-event – Reactions
	Distress at survivor reactions
	Cognitive identification (Cognitive ID)
	Emotional identification (Emotional ID)
	Peritraumatic distress
5	Post-event (STS only)
	Family/friends support

Current distress was selected as a control variable in the first step as it was moderately to strongly correlated with peritraumatic distress and STS. Group (police vs VS) was also selected in this step to control for possible group differences. Three pre-event variables were selected in step 3: trauma history, trauma resolution, and years of service (experience), each of which has been implicated in STS. Next, two peri-event variables were entered: violent death and death exposure. It has been argued that violent death

may exacerbate peritraumatic distress and it was related to peritraumatic distress in both samples and to STS in VS workers. Death exposure seemed to be an important factor to consider in peri-event reactions to the death and it was related to peritraumatic distress. The peri-event reactions of distress at survivor reactions, cognitive and emotional identification (in lieu of total identification), and peritraumatic distress were entered in the next step. Finally, talking with family or friends was selected as a post-event variable in the last step for the STS regression because it was related to higher STS.

10.2.2 HYPOTHESIS TESTING ANALYSES

Statistical significance was accepted at $p < .05$.

Hypothesis 1

Identification, distress at survivor reactions, and violent death will predict peritraumatic distress.

As hypothesised, both cognitive and emotional identification, distress at survivor reactions, and violent death predicted peritraumatic distress. As shown in Table 10.10 (p 132), the strongest predictor in the final step was current distress ($\beta = .26$), but after controlling for this and first responder group (being a VS worker also predicted higher PDI scores; $\beta = .14$), four other peri-event variables were predictors. Emotional identification and distress at survivor reactions were the biggest remaining predictors (each $\beta = .25$), followed by cognitive ID ($\beta = .19$), and violent death ($\beta = .18$). After controlling for current distress and group, the three peri-event reactions explained more unique variance (19.1%) than pre-event (2.1%), and other peri-event (5.5%) variables. Having more years' experience was a predictor in step 2 ($\beta = .15$) but this was cancelled out once peri-event variables were entered in the next step. The total model accounted for 51.7% of the variance in peritraumatic distress [$F(10, 251) = 26.91$, $p < .01$].

Hypothesis 2

There will be two types of identification with survivors: cognitive and emotional identification. Emotional identification will be a stronger predictor of peritraumatic distress than cognitive identification.

This hypothesis was confirmed by the factor analysis of the Identification with Survivor Scale, described in the descriptive analyses section. Two clear factors emerged, which have been labelled emotional identification (factor 1) and cognitive identification

Table 10.10 *Summary of multiple hierarchal regression analyses for groups of variables predicting peritraumatic distress in first responders showing standardised beta coefficients (β)*

Variable	Step 1	Step 2	Step 3	Step 4
Step 1				
Current distress	.49**	.46**	.44**	.26**
Group	.14**	.19**	.21**	.14*
Step 2				
Trauma		.03	.04	.14
Trauma resolution		-.04	-.04	.05
Experience		.15*	.10	.05
Step 3				
Violent death			.19**	.18**
Death exposure			.11	.07
Step 4				
Survivor reactions				.25**
Cognitive ID				.19**
Emotional ID				.25**
Multiple R	.50	.52	.57	.72
Total R^2	.25	.27	.33	.52
Adjusted R^2	.25	.26	.31	.50
R^2 change	.25	.02	.06	.19

* p <.05 **p <.01

(factor 2). The factors were only moderately correlated (r =.35), reinforcing their distinctiveness.

The regression equation for the previous hypothesis showed that emotional identification (β = .25) was a stronger predictor of peritraumatic distress than cognitive identification (β = .19) (see Table 10.10). To clarify the strength of the relationship between emotional identification and peritraumatic distress relative to cognitive identification without the possible confounds of other variables, both identification variables were entered simultaneously in a direct multiple regression equation. This confirmed that emotional identification (β = .37, p <.01) was a stronger predictor than cognitive identification (β = .31, p <.01; [F (2, 303) = 70.11, p <.01]).

Hypothesis 3

Peritraumatic reactions (distress at survivor reactions, identification, and peritraumatic distress) will be related to less helpful behaviour towards survivors in the immediate aftermath (lower I CARE scores).

The only peri-event reaction related to lower I CARE was distress at survivor reactions ($r = -.21$), indicating that first responders who reported more distress at reactions were less likely to engage in strategies that survivors found helpful. A multiple hierarchical regression analysis showed that the biggest predictor of I CARE was group (being a VS worker predicted more helpful interactions; $\beta = .34$), and after controlling for this, the only other predictor was distress at survivor reactions ($\beta = -.15$) (see Table 10.11, p 134). The model accounted for 23.5% of the variance in I CARE [$F (11, 250) = 6.98$, $p < .01$]. Given the importance of group as a predictor and the fact that VS workers scored significantly higher than police on I CARE, separate regression analyses were conducted for each group (see Table 10.11, p 134). Although being a VS worker was the strongest predictor of I CARE scores, the model only explained 11.2% of the variance for this group [$F (10,101) = 1.27$, $p = .26$]. None of the independent variables was a significant predictor.

The same model explained 10.6% of the variance [$F (10,132) = 1.57$, $p = .12$] in police I CARE scores. However, higher distress at survivor reactions ($\beta = -.24$) and lower emotional identification ($\beta = .22$) each predicted lower I CARE scores or less helpful behaviour towards survivors. There were no further predictors, indicating that most of the variance in I CARE scores was due to other factors not included in the regression.

Hypothesis 4

Peri-event reactions will explain more variance in secondary traumatic stress (STS) than other peri-event, pre-event, and post-event variables. Each peri-event reaction (distress at survivor reactions, identification, and peritraumatic distress) will independently predict STS, with peritraumatic distress being the biggest predictor.

As hypothesised, peri-event reactions accounted for more unique variance in STS (11.3%) than pre-event (0.7%), other peri-event (1.4%), and post-event (0.0%) variables after controlling for current distress and group, which explained the greatest proportion

Table 10.11 *Summary of multiple hierarchal regression analyses for groups of variables predicting supportive interactions (ICARE) in first responders showing standardised beta coefficients (β)*

Variable	Step 1	Step 2	Step 3	Step 4
Step 1				
Current distress				
Total	-.13*	-.13*	-.12*	-.06
Police	-.15	-.15	-.15	-.14
VS	-.14	-.10	-.09	.06
Group				
Total	.41**	.39**	.35**	.34**
Step 2				
Trauma				
Total		-.01	-.12*	-.02
Police		.09	.10	.09
VS		-.10	-.11	-.11
Trauma resolution				
Total		-.00	-.00	-.02
Police		.02	.02	.02
VS		.07	.07	.08
Experience				
Total		-.05	-.03	-.01
Police		-.07	-.06	-.06
VS		-.06	-.05	-.04
Step 3				
Violent death				
Total			.04	.02
Police			.04	.01
VS			.09	.05
Death exposure				
Total			-.12	-.10
Police			-.10	-.10
VS			-.01	.02
Step 4				
Survivor reactions				
Total				-.15*
Police				-.24*
VS				-.11
Cognitive ID				
Total				-.09
Police				-.01
VS				-.22
Emotional ID				
Total				.10
Police				.22*
VS				.03
Peritraumatic distress				
Total				-.03
Police				-.00
VS				-.08
Multiple R				
Total	.43	.44	.45	.49
Police	.15	.17	.21	.33
VS	.14	.20	.22	.33
Total R^2				
Total	.19	.19	.20	.24
Police	.02	.03	.04	.11
VS	.02	.04	.05	.11
Adjusted R^2				
Total	.18	.17	.18	.20
Police	.01	-.00	.00	.04
VS	.01	.01	-.00	.02
R^2 change				
Total	.19	.00	.02	.03
Police	.02	.01	.02	.06
VS	.02	.02	.01	.06

* p <.05 **p <.01

(33.8%) (see Table 10.12). Peritraumatic distress and distress at survivor reactions were the strongest STS predictors (each β = .21) after controlling for current distress. A separate regression with peritraumatic distress entered in the first step and distress at survivor reactions in the second confirmed that each was an independent predictor (β = .40 and β = .26 respectively). Although emotional and cognitive identification were related to STS, neither was a predictor. The final model accounted for 47.2% of the variance in STS [F (12, 249) = 18.56, p <.01].

Table 10.12 *Summary of hierarchical regression analysis for variables predicting STS in first responders showing standardised beta coefficients*

Variable	Step 1	Step 2	Step 3	Step 4	Step 5
Step 1					
Current distress	.58**	.56**	.55**	.39**	.39**
Group	-.05	-.05	-.07	-.11	-.12
Step 2					
Trauma		.02	.04	.04	.04
Trauma resolution		-.06	-.06	-.01	-.01
Experience		.06	.03	-.02	-.02
Step 3					
Violent death			.12	.07	.07
Death exposure			-.01	-.05	-.05
Step 4					
Survivor reactions				.21**	.21**
Cognitive ID				.10	.10
Emotional ID				-.01	-.01
Peritraumatic distress				.21**	.21**
Step 5					
Family/friends					-.01
Multiple R	.58	.59	.60	.69	.69
Total R^2	.34	.35	.36	.47	.47
Adjusted R^2	.33	.33	.34	.45	.45
R^2 change	.34	.01	.01	.11	.00

* p <.05 **p <.01

10.2.3 SUMMARY OF HYPOTHESIS TESTING

The first hypothesis that violent death, distress at survivor reactions, and identification will predict peritraumatic distress was supported. Each was a predictor in the final step after controlling for current distress.

The second hypothesis that there will be two types of identification with survivors, cognitive and emotional identification, was supported. As expected, emotional identification was a stronger predictor of peritraumatic distress than cognitive identification.

The third hypothesis was that peri-event reactions (distress at survivor reactions, identification, and peritraumatic distress) will be related to less helpful behaviour towards survivors in the immediate aftermath (lower I CARE scores). The only one of these variables related to I CARE was distress at survivor reactions. Among police officers, who scored significantly lower on I CARE than VS workers, distress at survivor reactions and lower emotional identification predicted less helpful survivor interactions.

The fourth hypothesis was that peri-event reactions will explain more variance in secondary traumatic stress than pre-event, other peri-event, or post-event variables, which was the case. It was expected that each of the three peri-event reactions would predict STS, with peritraumatic distress being the strongest. After controlling for current distress, distress at survivor reactions and peritraumatic distress were equally strong - and independent - predictors of STS. Identification (emotional and cognitive) were significantly related to STS but were not predictors.

CHAPTER 11:
DISCUSSION

This part of the study examined the impact of sudden death work on a sample of police officers and Victim Support workers. The aim was to identify what aspects of this work were most distressing in the immediate aftermath for first responders and how this distress affected the support they offered survivors and their own STS reactions.

While research shows that peri-event factors, including peritraumatic distress, are the strongest predictors of PTSD (e.g., Ozer, et al., 2003), studies have ignored the role of peri-event factors and peritraumatic distress in first responders who work with bereaved survivors. Research shows that first responders find certain aspects of their work with survivors distressing, including witnessing distress reactions in survivors, identifying with survivors, and perceiving the situation to be threatening (peritraumatic distress). This is a concern because such distress may result in first responders engaging in unhelpful interactions with survivors through their attempts to "cure" the survivor's distress in order to ease their own distress. Further, given that STS symptoms parallel those of PTSD, the robust association between peritraumatic distress and PTSD in victims means that peritraumatic distress may also result in STS for first responders.

11.1 Scores on standardised measures among first responders

First responders tended to score lower on distress measures than other comparable populations. For example, the mean HSCL-21 score for current psychological distress was 27.35 (SD = 7.79), which was less than the survivors' mean of 34.86 (SD = 13.62) and two non-clinical samples in New Zealand studies: police recruits (M = 33.96, SD = 7.68) (Huddleston et al., 2006) and nurses (M = 35.58, SD = 8.52) (Deane, et al., 1992).

They also had substantially lower levels of peritraumatic distress than bereaved survivors in this study. The mean was .37 (SD = .31), with .33 (SD = .29) for police and .41 (SD = .33) for VS workers. These compared with 1.51 for survivors (SD = .75). The first responder scores were also lower than that of police officers in several studies. Brunet (2001) reported a mean of 1.17 (SD = .64) for police officers who had attended a critical incident, while McCaslin et al. (2006) found means of 1.25 (SD = .65) and 1.08

(SD = .59) for police officers exposed to either a high or low personally relevant threat respectively. However, the first responders' scores are comparable to that of Fikretogu et al. (2006) who reported a mean of .42 for the low peritraumatic distress group in their study of police officers exposed to critical incidents.

No published norms are available for the STS, however Motta et al. (2004) noted that 44% of their sample of college students fell into a "mild to moderate" range with a mean of 38.44 (SD = 11.25) and 10% scored in the "moderate to severe" range with a mean of 49.42 (SD = 14.69). While not directly comparable, the first responders in the current study appeared to have much less severe STS symptoms. Only 4.2% of police officers and 2.8% of VS workers scored above their suggested cutoff for of 38 for mild to severe symptoms on the STS.

Neither Ursano et al. (1999) or Cetin et al. (2005) published means for the identification scale, therefore no comparisons can be made between the current identification scores and those of earlier studies.

11.2 Factors contributing to peritraumatic distress in the immediate aftermath

Despite relatively low levels of distress for first responders, this study revealed clear predictors and consequences of distress in the immediate aftermath of a sudden death. VS workers showed significantly more peritraumatic distress than their police counterparts. However, after controlling for this and for current distress, the hypothesis was supported: violent death, distress at survivor reactions, and identification with the survivor predicted greater peritraumatic distress among the first responders as a whole.

These findings are consistent with reports that first responders find it distressing witnessing reactions in sudden death survivors (e.g., Regehr, et al., 2002; Wright, 1991), identifying with survivors (e.g., Henry, 2004; Regehr, et al., 2002), and dealing with deaths from suicide, homicide, and accident (e.g., Greene, 2001; Jones, 1985; Taylor & Frazer, 1982; Ursano & McCarroll, 1994; Ursano, et al., 2003). However, this is the first known study to examine these sources of distress in relation to peritraumatic distress. Given that peritraumatic distress is a response to perceived threat, the current results suggest that first responders can feel threatened when interacting with survivors,

especially if they are working in the context of a violent death, are distressed by the survivor's reactions, or identify with the survivor.

Distress at survivor reactions

Equal with emotional identification, distress at survivor reactions was the strongest predictor of peritraumatic distress, after controlling for current distress. Previous studies have shown first responders find it challenging to interact with distressed survivors and that it can be distressing witnessing certain survivor reactions, including attempted self-harm, physical acting out, anxiety/panic, anger, uncontrollable crying, dissociation, withdrawal, denial, isolation, bargaining, inappropriate responses, guilt, and acceptance (Eth, et al., 1987; Haglund, et al., 1990; Hart & DeBernardo, 2004; Regehr, et al., 2002; Stewart, et al., 2000, 2001). The current research suggests that witnessing others' grief and trauma reactions may in fact induce a sense of threat in trauma workers, characterised by feelings of fear, helplessness and vulnerability. Such feelings have been described in other examples of professionals working with bereaved survivors (Eth, et al., 1987; Haglund, et al., 1990; Hart & DeBernardo, 2004; Regehr, et al., 2002; Stewart, et al., 2000, 2001).

The sense of threat that accompanies witnessing survivors' distress may be intensified due to its engaging multiples senses. Distress reactions can be seen (e.g., the body language of panic), heard (e.g., crying/screaming), and can evoke a strong emotional response (e.g., witnessing helplessness in survivors may engender helplessness in first responders). Just as being a primary victim confronted by a traumatic stressor involves multiple sensory stimulation, so does being a secondary victim witnessing traumatic responses in others. By this theory, it would be only natural for first responders to experience peritraumatic reactions, including physiological arousal, in response to witnessing others' grief and trauma.

There were no significant differences between police and VS scores on the distress at survivor reactions measure. The most distressing reactions were crying/screaming, helplessness, asking questions, guilt, and shock/panic. Police were significantly more likely to find crying/screaming distressing than VS workers. Likewise, Stewart et al. (2000) found police officers were more likely to find uncontrollable crying distressing than social workers and victim advocates. This suggests that police officers may find it

harder to deal with overt displays of emotion, while VS workers are challenged by more covert emotions. This may be a gender effect (most police officers were male and males may be more uncomfortable handling overt emotions) or it may reflect the different roles of each group. VS training emphasises the importance of being with a victim during an acute emotional phase, while police officers' role is law enforcement rather than victim support. Indeed, Stewart et al. argued that police officers may find it challenging moving from a role of law enforcement to supporting actively grieving victims. However, given these role distinctions, it is interesting that VS workers were just as distressed by survivor reactions as the police officers. A possible explanation for this is that police officers may either deny such distress or block it out. As argued in section 7.2.2, the police culture does not generally support the showing of emotion or empathetic engagement with survivors (Eth, et al., 1987; Hendricks, 1984).

Consistent with Eth et al.'s (1987) study of police officers who made death notifications, distress at survivors' reactions actually increased with years of service. This suggests that experience does not desensitise first responders to survivor reactions, and, witnessing grief and trauma may only become more difficult over time. Cases where the deceased was younger also contributed to greater distress at survivors' reactions. Survivors' reactions to the death of a younger person may be more intense as the death may be more unexpected and therefore more shocking than the death of an older person.

Finally, first responders with less trauma resolution showed more distress at survivor reactions. Several possible explanations may account for this. First, it could be that individuals who feel their most distressing experience is less resolved have poorer coping skills and/or have fewer resources available, making them more vulnerable to the effects of subsequent distressing events. Second, lower resolution may signify a lack of "psychological preparedness" (Janoff-Bulman, 2004). Janoff-Bulman states that individuals who have experienced a prior traumatic event and have rebuilt a viable assumptive world are less threatened by subsequent events. As she argues elsewhere (Janoff-Bulman, 1985), beliefs that have yet to be challenged are most likely to shatter the easiest in the wake of trauma. Finally, unresolved trauma may "prime" first responders to connect more with others' distress or may reactivate their own pain, thus causing distress.

Identification with survivors

Until now, identification has only been measured in relation to working with the deceased (Cetin, et al., 2005; Hodgkinson & Shepherd, 1994; Pillow & Cassill, 2001; Ursano, et al., 1999), not bereaved survivors, and has focussed on what could be called *cognitive identification*, ignoring what this study has termed *emotional identification.* Cognitive identification could be said to include thinking by similarity (e.g., *It could have been me*). However, studies show that trauma workers express identification emotionally as well, by experiencing or feeling the similarity (e.g., *I wanted to protect the* survivor) (Cadwell, 1994; Greene, 2001; Hendricks, 1984; Henry, 2004).

An identification scale developed for this study showed high reliability, and, as expected, both emotional and cognitive identification clearly loaded onto separate factors. The fact that both types of identification were only moderately correlated (r = .35), highlights that these expressions of identification are likely to have separate roles among first responders. Indeed, while emotional identification was associated with being older, having more experience of trauma, and less trauma resolution, cognitive identification had no unique relationships. Both types of identification predicted peritraumatic distress, however, as hypothesised, emotional identification was the stronger predictor of the two.

Ursano and colleagues argue that identification may reflect a loss of cognitive and perceptual flexibility that occurs during a traumatic event (Ursano & Fullerton, 1990). Individuals exclude new and unfamiliar information and seek out what is familiar in an attempt to rebuild shattered assumptions and regain a sense of trust, safety, and predictability (McCarroll et al.,1997; Ursano & Fullerton,1990). Given this explanation, the current findings suggest that a sense of threat or peritraumatic distress may lead to identification rather than the other way round. Causality cannot be established with correlational data. However, it can be determined that first, the degree to which an individual perceives their most distressing traumatic experience to be resolved appears to be a key determinant of emotional identification, and second, that VS workers had significantly higher total and emotional identification than police officers .

Although VS had lower trauma resolution than police officers, the relationship between emotional identification and trauma resolution was independent of group, age and trauma history. It was also unrelated to experiencing traumatic experiences similar to that of the survivor, which was a possibility mooted by Hendricks (1984). Individuals with unresolved trauma may be more prone to an emotional connection with survivors, perhaps because they are unable to distinguish between their needs and those of others. This means either that a lack of separation between the self and the survivor can be perceived as threatening or that a sense of threat may activate emotional identification in those with more unresolved trauma. Either way, this study suggests that first responders are capable of seeing a survivor's distress as their own. Age was also positively associated with emotional identification, irrespective of group, trauma history, and resolution. Thus, this may reflect an empathetic style that develops with age.

There are several possible reasons why VS workers had higher emotional identification and total identification scores than police officers. First, this may be because victim advocates have fewer opportunities to learn about professional boundaries due to working less frequently with victims than the police do. Second, victim advocates assume a more passive role in working with survivors compared with police officers who have the concrete task of investigating the death, which may distract them from identifying with the survivor. Rynearson, Johnson, and Correa (2006) argue that identification may be higher among trauma workers whose role is "being" not "doing". A third possibility is that the difference may result from the different personal characteristics of VS workers and police officers. Given that the relationship between VS and emotional identification was independent of trauma resolution and age, and unrelated to any other characteristics measured in this study, this may be due to unmeasured factors such as personality. Finally, the police officers' lower emotional identification may reflect their use of emotional detachment as a defensive coping mechanism.

While emotional identification was the stronger indicator of peritraumatic distress, the results show that first responders who had a more cognitive identification with survivors were also likely to experience peritraumatic distress. This bolsters the evidence that cognitive identification is indeed a concern for trauma workers, as it may occur in not

only in relation to work with the deceased, as has been already established (Cetin, et al., 2005; Hodgkinson & Shepherd, 1994; Pillow & Cassill, 2001; Ursano, et al., 1999), but also in relation to work with survivors.

Violent death

While it has been frequently reported that first responders find it distressing working with the deceased in a violent death situation (e.g., Greene, 2001; Jones, 1985; Taylor & Frazer, 1982; Ursano & McCarroll, 1994; Ursano, et al., 2003), this is the first known study to examine the impact of working with survivors following a violent death. Part 2 of this study showed that survivors whose loved one died a violent death (homicide, suicide, or accident) were at greater risk of peritraumatic distress. This part of the study suggests that peritraumatic distress is also higher in first responders who attended a violent death, even though they did not personally know the victim. As argued in Part 2, violent deaths may be more distressing for several reasons including that they often claim the lives of younger people, occur in circumstances that are hard to make sense of, and may result in mutilating injuries to the body (Currier, et al., 2006; B. L. Green, 2000; Redmond, 1996).

Furthermore, violent death predicted peritraumatic distress, even when controlling for group and years of service. It's relationship with peritraumatic distress was also independent of death exposure, distress at survivor reactions, and whether or not police officers prepared the body. Taken together, this indicates that what first responders find immediately distressing about violent death is not it's effect on the person who died nor it's effect on the person who survived. Given that there were no significant differences between the types of violent death and peritraumatic distress, it could be concluded that violent deaths in general may remind first responders of their own vulnerability (Raphael, 1986) – that they too could become either a victim or survivor of a violent death. This may shatter their own assumptions about the world (Wortman & Lehman, 1985) and therefore result in a sense of threat when working with survivors.

11.3 Impact of peri-event reactions on survivor support

The I CARE scale was developed for this study to measure the helpfulness of interactions with survivors based on the degree to which first responders met five groups of immediate needs shown to be important to suddenly bereaved survivors. Each

need forms the mnemonic I CARE: receiving information (Information), regaining control (Control), facilitating acceptance (Accept), being able to react (React), and receiving empathy (Empathy).

VS workers scored significantly higher than police officers on I CARE, suggesting that they are more likely to engage in strategies that bereaved survivors find helpful. This is perhaps no surprise given that the VS role is to provide emotional and practical support to victims in the immediate aftermath, while police officers' priority is to investigate the death. Crisis workers are also trained to show empathy, which is something police officers may be less rehearsed at doing, and from which they may in fact detach themselves. While a "thick-skin" may be a useful coping strategy at the time, over time, first responders who react in this way may become hardened in their dealings with survivors and divorced from their needs (Hendricks, 1984; Regehr, et al., 2002). Given VS workers' expectation to show empathy, it is also possible that they may have over-reported their helpfulness in working with survivors.

It was hypothesised that first responders' peri-event reactions (distress at survivor reactions, identification, and peritraumatic distress) would be related to less caring behaviour (lower I CARE scores) towards survivors in the immediate aftermath. Research shows that helpers feel intense anxiety when interacting with bereaved survivors (e.g., D. R. Lehman, et al., 1986; Rosenblattt, et al., 1991; Wortman & Lehman, 1985). Consistent with this, distress from witnessing survivor reactions and identifying with the survivor predicted peritraumatic distress in the current study. This distress may compromise their ability to meet bereaved survivors' immediate needs because helpers often try to reduce their personal distress by trying to prevent the survivor from feeling upset. This can result in wanting to "cure" rather than care for the survivor. Indeed, when controlling for first responder group, distress at survivor reactions predicted lower I CARE scores and first responders who showed more distress at survivor reactions were more likely to engage in unhelpful (or "cure") strategies, including using words/terminology that were difficult to understand, discouraging body viewing, preventing the survivor from talking about the death, and showing insensitivity.

Although unrelated to total I CARE scores, higher peritraumatic distress and cognitive identification were also associated with individual "cure" strategies, including preventing the survivor from getting upset and from talking about the death, insensitivity, and discouraging body viewing. This implies that while distress at survivor reactions may influence support strategies across the board, other types of distress in the immediate aftermath may affect specific support strategies. These attempts at "curing" the survivor are consistent with previous research (Dix, 1998; Goldsmith & Haddington, 1997; Ingram, et al., 2001; D. R. Lehman, et al., 1986; Singh & Raphael, 1981). For example, although first responders may be aware of survivors' need to view their loved one's body (e.g., Tye, 1993), other studies show that they do actively discourage body viewing, usually for fear that it will upset the survivor (e.g., Dix, 1998; Goldsmith & Haddington, 1997; Singh & Raphael, 1981).

This study suggests that a first responder's ability to meet a survivor's needs is indeed determined by the distress they feel in relation to working with that survivor, especially how they cope with the grief and trauma reactions they witness. As already argued, witnessing others' acute distress following the sudden death of a loved one may render first responders helpless and vulnerable. It has long been argued that helpers may experience conflict between 1) their own vulnerability and distress, and 2) the belief that they should remain upbeat and optimistic when supporting someone in crisis in order to make them feel better (e.g., Coates, et al., 1979; Silver, et al., 1990; Wortman & Lehman, 1985). Fear of intensifying the victim's distress by doing or saying the "wrong thing" adds to this conflict, which may partly explain why distress at survivor reactions predicted less helpful interactions. The result of such anxiety is that helpers, despite best intentions, may be so focussed on trying not to further upset the victim that they unwittingly do or say things that are unhelpful and disempowering – in other words, "cure" behaviours.

The current findings support this theory, and also the theory that egoism – reducing another's distress in order to relieve one's own distress - is one of the prime motivations for altruism (Batson & Shaw, 1991). Further to this, given that first responders are likely to feel vulnerable and helpless in their dealings with survivors, they may also be motivated by a need to regain control. Many unhelpful or "cure" interactions involve action and purpose (e.g., discouraging body viewing, preventing the survivor from

talking about the death). Meanwhile, some helpful interactions involve more of maintaining a quiet presence and allowing the survivor to take control (e.g., being helpful yet not intrusive, listening). However, preference for either "care" or "cure" styles may also reflect differences in personality, which may explain the finding that police officers were less helpful in their interactions with survivors than VS workers.

Another interesting finding was that while among police officers, higher distress at survivor reactions also predicted lower I CARE scores, emotional identification predicted higher scores. Thus, the police officers who experienced greater emotional identification with survivors were in fact *more* likely to help those survivors. Because identification was hypothesised to result in distress, which is thought to inhibit helpful interactions, this finding was unexpected. However, given that the prime police role is to investigate sudden deaths rather than offer victim support, it is possible that emotional identification may have been necessary for the police officers to engage in a helping role with survivors. Alternatively, emotional identification may have been related to higher regulation of emotional arousal, which was unmeasured in this study. It is thought that individuals who can regulate their arousal when distressed are more likely to focus on the needs of others rather than the needs of themselves (Eisenberg & Fabes, 1999; Eisenberg, et al., 1994). Several studies have found a link between identification with victims and increased helping behaviours (Feldman et al., 1998; Wayment, 2004; Westmaas & Silver, 2006). These findings, together with those relating to police in the current study, may also support the theories that 1) similarity increases attraction and positive attitudes (Byrne, 1971); and 2) that individuals are motivated to compare themselves to and invest more of their time and resources with similar others (Festinger, 1954) - but only when the similarity is felt emotionally rather than cognitively.

11.4 Impact of peri-event factors on secondary traumatic stress

Role of peri-event reactions

It was hypothesised that peri-event reactions would explain more variance in STS than other peri-event, pre-event, and post-event factors, and that peritraumatic distress would be the biggest predictor of these. There were no significant differences between police and VS STS scores, and, as expected, after controlling for current distress, most variance in STS was explained by how first responders reacted to survivors in the

immediate aftermath (distress at survivor reactions, identification, and peritraumatic distress). Together, these reactions, were more influential than pre-event factors (trauma history, trauma resolution, years of service); other peri-event factors (whether the death was violent, exposure to the death scene and deceased); and the post-event variable of helpfulness of talking with family/friends as a support strategy after the death. This was the first known study to examine the role of what happens during and immediately after a traumatic stressor in relation to STS and it reinforces what is known about PTSD - that peri-event variables, especially peri-event reactions - are the strongest predictors (Ozer, et al., 2003).

Role of peritraumatic distress

In further support of the hypothesis, after controlling for current distress, the biggest STS predictor was peritraumatic distress, equal with distress at survivor reactions (β = .21). Although distress at survivor reactions and peritraumatic distress were highly correlated, each was an independent predictor of STS, however it is argued that each works in the same way to precipitate STS. This was the first known study to examine the role of peritraumatic distress in relation to STS, and the results support the idea that cognitive theories of PTSD may also help explain STS (Sabin-Farrell & Turpin, 2003). These theories state that peritraumatic distress may disrupt the processing of trauma-related information about the stressor, resulting in poorly-encoded memories returning as intrusions and resulting in PTSD (Brewin, et al., 1996; Ehlers & Clark, 2000).

In STS, the stressor is not the original traumatic event (the death in this case) but the interactions with the victim or bereaved survivor (see Table 7.1, p 98). First responders may be overwhelmed by the distress – both general peritraumatic and from witnessing distress in survivors – that they experience when confronted by acutely distressed survivors and when the death is violent. This may prevent them forming a coherent memory of their interactions with the survivor. These interactions may then be encoded as fragments, returning later as involuntary intrusions that evoke a sense of threat or hyperarousal for the first responder all over again. Hence, the first responder may attempt to avoid any reminders of their interactions with the survivor for fear that it will bring back the distress they experienced at the time, and thus, the cycle of STS has begun. Given that distress at survivor reactions predicted STS independent of peritraumatic distress, it can be argued that this disrupts information processing in its

own right, leading to STS. Indeed, the sensory stimulation evoked by witnessing another in distress, described in section 11.2 (p 139), is likely to be powerful enough to interrupt processing during the peritraumatic period.

Given the similarities between PTSD and STS, it was also suggested that identification, which is known to predict PTSD among trauma workers, would also predict STS. Identification with the survivor (emotional, cognitive, and total) were indeed moderately correlated with STS, however none was a predictor. Nonetheless, this does point to identification playing a role in the development of traumatic stress. There are as yet no theories to explain how identification may lead to PTSD. However, given that emotional identification was the strongest predictor of peritraumatic distress - equal with distress at survivor reactions, after controlling for current distress - future research should examine the possible mediational role of peritraumatic distress in relation to both PTSD and STS.

Pre-event and post-event variables

Until now, STS research has focussed on pre-event risk factors, such as experience of personal trauma (Follette, Polusny, & Milbeck, 1994; Jenkins & Baird, 2002; Kassam-Adams, 1995), lack of trauma resolution (Hargrave, et al., 2006), younger age (Arvay & Uhlemann, 1995), female gender (Cornille & Meyers, 1999; Kassam-Adams, 1995), lower education (Baird & Jenkins, 2003), higher client caseload (Arvay & Uhlemann, 1995; Brady et al., 1999; Chrestman, 1999), spending more hours per week spent with clients (Cornille & Meyers, 1999; McLean et al., 2003), and less experience in trauma work (Arvay & Uhlemann, 1995; Pearlman & MacIan, 1995; McLean et al., 2003; Way et al., 2004). The current study found that the only pre-event variable related to STS was having lower trauma resolution, however this was not a predictor. Still, this reinforces that an individual's trauma history may not be as important as whether or not they feel they have resolved their most distressing traumatic experience (Hargrave, et al., 2006).

Interestingly, first responders who found talking with family/friends to be a helpful post-death support strategy were in fact prone to greater STS symptomatology. This is contrary to a study showing that emotional support from peers acted as a buffer to reduce PTSD symptoms among New Zealand police officers who had experienced a

work-related traumatic event (Stephens & Long, 1999). However, the current finding may reflect that those who developed STS symptoms chose as a result to reach out to those closest to them. This is a likely explanation, given that talking with family/friends was also related to peritraumatic distress, which would have been experienced *before* first responders were able to talk to family or friends about their sudden death case. There were no other relationships between support strategies and STS, consistent with a previous study of VS workers (Hargrave et al., 2006). By implication, this may also mean that those who most needed support from their organisation and/or professional therapists were not receiving it.

11.5 Implications

This study furthers the theoretical understanding of peritraumatic distress, identification, and STS, and has practical implications for first responders working with suddenly bereaved survivors.

Theoretical implications

The findings advance what was found in Part 2 of this study regarding peritraumatic distress – that violent death is a predictor, however this part of the study adds several new insights. First, it shows that peritraumatic distress can occur in secondary as well as primary trauma victims and in relation to work with survivors, irrespective of whether the death was violent or not. Second, it indicates that regardless of the nature of the death -and other peri-event and pre-event variables – first responders' reactions in the peri-event period are the strongest peritraumatic distress predictors. In other words, subjective responses are more influential than objective factors relating to the first responder or the sudden death case itself.

This is also true for STS. There has been scant theoretical attention paid to STS, however this study begins to build a theory with evidence that parallels what is known about PTSD. For example, it appears that peri-event variables, including peritraumatic distress, predict both PTSD and STS. This supports the argument that just as peritraumatic distress disrupts the processing of trauma information leading to PTSD, so it also disrupts the processing of information relating to the survivor resulting in STS. Peritraumatic reactions may be a prerequisite not only for a PTSD diagnosis but also for any diagnostic criteria that may be developed in future for STS.

The findings also offer more insight into trauma workers and identification by showing that identification can occur when working with bereaved survivors - not only with the deceased, and that it may manifest as cognitive or emotional, the latter of which appears to be more distressing. The study indicates that lack of trauma resolution may be key to understanding identification.

Practical applications

There are several ways in which these findings can be applied practically in the selection, training, retention, and support provided to first responders working with the suddenly bereaved.

Selection of workers for sudden death work

Any selection of individuals for sudden death work should focus on dealing with unresolved trauma. Organisations should be aware that workers with unresolved personal trauma appear to be at greater risk of peritraumatic distress – which is a risk for STS – and identification. It has been thought that simply having a trauma history was a risk for STS (Follette, Polusny, & Milbeck, 1994; Jenkins & Baird, 2002; Kassam-Adams, 1995), but the current findings build on a previous study (Hargrave et al., 2006) suggesting that individuals who may be unsuited for trauma work are those with trauma that is unresolved rather than a trauma history per se. First responders should be encouraged to be aware of their own level of resolution and to seek counselling to help them accept any unresolved traumatic experiences. Besides trauma resolution, none of the other pre-event variables (e.g., demographics, experience) played a significant role in peritraumatic distress or STS. Thus, self-selection for working with the suddenly bereaved appears to be appropriate and the focus of organisations in preparing workers for this role should be on education. First responders require education about the potential impact of working with bereaved survivors in sudden death situations, for example, possible survivor reactions; awareness of STS, and notably, survivors' immediate needs and how to meet them using the I CARE mnemonic and psychological first aid.

Training: The Implications of needs-based psychological first aid

It is important for first responders to understand sudden death survivors' needs before faced with a crisis because survivors may not be able to ask for the help they need (Worden, 1982). However, first responders should also be aware that their own distress may lead to a desire to protect and avoid upsetting the victim, which often manifests in actions and words that disempower the victim, prohibit their needs being met, and exacerbate their distress. I CARE is not only a method of remembering needs-based psychological first aid for sudden death survivors, but also a reminder to trauma workers that their own distress may result in their wanting to "cure" rather than care for the survivor. Any psychological first aid training must acknowledge that the meeting of survivors' needs cannot be separated from the need of many trauma workers to reduce their own distress and discomfort. This is vital because research shows that trauma workers may know in theory how to support a bereaved person; the problem is that in reality their own distress may prohibit this.

This study supports the growing emphasis on early interventions providing practical help to meet victims' and survivors' needs in the immediate aftermath of traumatic events (e.g., McNally, et al., 2003; Ministry of Health, 2007a; Raphael, et al., 2004; Ruzek, et al., 2007; Shalev, 2002; World Health Organization, 2003). Meeting needs is thought to be more important than interventions such as critical incident stress debriefing, which has shown to be ineffective and potentially harmful (Rose, Bisson, Churchill, & Wessely, 2002). Hence, the I CARE mnemonic may be an appropriate and effective tool in assisting first responders to meet survivors' and trauma victims' immediate needs.

Support for first responders

The study also points to the need for organisational support for first responders after sudden death work. First, police officers and VS workers generally found debriefing to be helpful following their sudden death case, however helpfulness of support in general was unrelated to STS, and helpfulness of debriefing had no impact on STS symptoms. This bolsters the argument that debriefing is ineffective in reducing traumatic stress symptoms (Rose, et al., 2002). Further, none of the police or VS organisational support strategies had any effect on trauma symptoms and several participants commented on the lack of organisational support. This suggests that organisations should review the

current support offered to employees and volunteers. Second, if peritraumatic distress leads to STS by disrupting information about interactions with survivors, then any therapy with first responders presenting with STS symptoms should focus on "rebuilding" the narrative relating to these interactions. This may increase the perceived helpfulness of counselling, which was rated poorly by both police and VS workers.

In sum, first responder education to raise awareness of the challenges and risks of sudden death work, coupled with appropriate support, may help reduce the turnover of volunteer and professional trauma workers alike, and improve the effectiveness of first response organisations in sudden death work.

11.6 Strengths and limitations

A key strength of this study is its generalisability to other groups of first responders and trauma workers because it had a good response rate (65.07% in total) and included both professionals and volunteers. Like the survivor study, it provided broad data on the peri-event period, focussing on variables relating to the deceased, survivors and specific context of the work and the case themselves. Few known studies have recorded data relating to the peri-event period of a sudden death in such detail.

However, these strengths should be regarded cognizant of the following limitations. Potential weaknesses including retrospective recall, confounding variables (e.g., current distress), direction of relationships due to cross-sectional design, timing of contact with survivors, and the I CARE measure are discussed in section 6.6 in Part 2. Specific to this part of the study, first, it is possible that participants' STS symptoms may have led to their reporting greater peritraumatic distress symptoms than they actually experienced at the time. A longitudinal study would be needed to control for this. Second, the direction of relationships for peritraumatic distress with each of its predictors - distress at survivor reactions and identification - is questionable. It is possible that first responders may experience greater identification and distress from survivor reactions as a *result* of peritraumatic distress. Indeed, it has already been argued that peritraumatic distress may evoke a sense of identification with survivors. However, if distress at survivor reactions resulted from peritraumatic distress, the relationship between distress at survivor reactions and STS would be non-significant

when controlling for peritraumatic distress, when it was actually independent of peritraumatic distress. Third, as discussed, the I CARE measure needs further work in terms of item selection and validation. However, as with the survivor version, the first responder version's reliability of .70 is adequate, according to Nunnaly (1978).

Fourth, of the 12 pre, peri, and post-event variables inputted into the regression analyses for peritraumatic distress, I CARE, and STS accounted for 51.7%, 11.2%, and 47.2% of the variance respectively. Thus, the model was the best fit for peritraumatic distress but highlighted that other factors unaccounted for in this study explain a large proportion of the variance in each of these three key variables, especially I CARE. As with the survivor study, the peri-event factors selected were specific to sudden death, however other unmeasured variables that may have explained more variance include peritraumatic dissociation, distress at the time of the sudden death, and personality factors. Future research should attempt to identify more factors that influence first responders' propensity to engage in helpful interactions with survivors.

11.7 Conclusions

This study shows that the most distressing aspect of sudden death work for first responders is their interactions with bereaved survivors. As shown in Figure 11.1 (p 154), witnessing survivors' grief and trauma reactions was the biggest predictor of peritraumatic distress, followed by violent death. It can therefore be concluded that these two factors are the most threatening to first responders while working with survivors. Equal with peritraumatic distress, distress at survivor reactions predicted STS. Identification with the survivor also predicted peritraumatic distress and was related to STS, however it is argued that identification probably results *from* peritraumatic distress, rather than the other way round. This study showed that identification may be experienced both emotionally and cognitively, and that it occurs not only in relation to working with the deceased, as previously described, but also when working with bereaved survivors.

Notably, the distress first responders experienced when interacting with survivors appeared to compromise their ability to meet survivors' immediate needs. As Figure 11.1 shows, distress at survivor reactions was the strongest predictor of the degree to

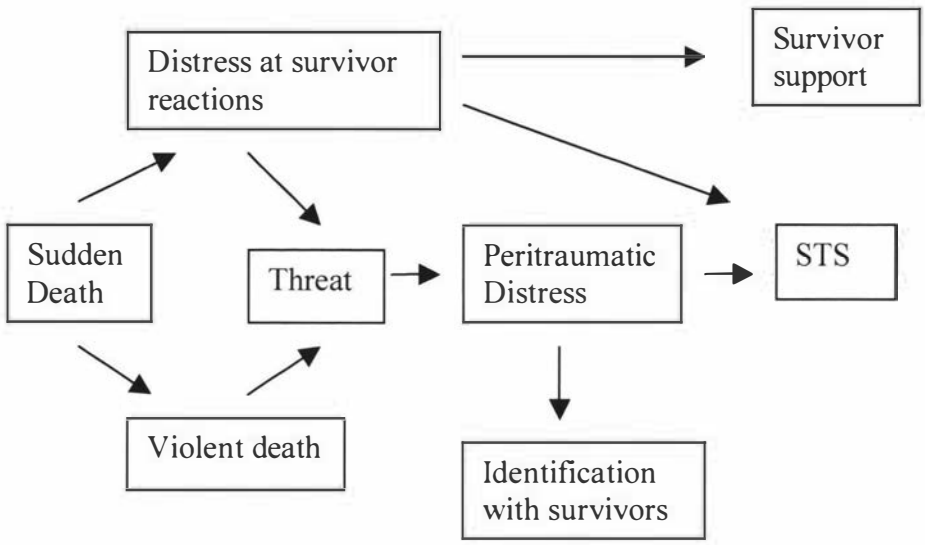

Figure 11.1. Model of peri-event factors predicting peritraumatic distress, survivor support and STS.

which they met survivors' needs. However, police officers with higher emotional identification were in fact *more* likely to meet survivors' needs.

It appears that the most influential factors in STS are subjective reactions at the time of the event rather than objective factors (e.g., whether the death was violent or not), what the trauma worker brings to the event (e.g., demographics, experience, past trauma), or what happens after the event (e.g., support strategies). Given the importance of peritraumatic distress in explaining STS, cognitive theories of PTSD that focus on peritraumatic distress may also be relevant to STS. Both peritraumatic distress and distress at survivor reactions may disrupt the processing of secondary trauma information relating to interactions with the survivor, resulting in STS.

Taken together, it could be concluded that sudden death work is perhaps more challenging than previously thought. Not only are first responders and trauma workers at risk of immediate and long-term distress from working with the deceased but also from working with bereaved survivors. Future STS research should focus more on how trauma workers feel at the time of interacting with victims, rather than solely their demographic and work-related characteristics and their work with the deceased.

PART 4

OVERALL CONCLUSIONS

CHAPTER 12:

OVERALL CONCLUSIONS AND IMPLICATIONS

The main aim of this research was to examine whether the support first responders offer survivors following a sudden death is influenced by the distress they experience when interacting with survivors, and 1) whether this support affects survivors' peritraumatic and long-term (PTSD and CG) distress, and 2) whether it also contributes to STS among first responders. Secondary aims were to develop a theory of how sudden bereavement leads to traumatic distress and CG symptoms, and to identify the factors contributing to and resulting from peritraumatic distress.

The key findings are shown in Figure 12.1 (p 157). Interactions between survivors and first responders soon after a death can be a mutually-distressing experience. The distress from witnessing survivor reactions not only affects first responders' peritraumatic distress but also the quality of support first responders offer survivors, which directly affects survivors' peritraumatic distress. Violent death has the potential to lead to peritraumatic distress for both parties. Peritraumatic distress has important consequences for both parties: it contributes to PTSD and CG in survivors and identification and STS in first responders.

12.1 Support in the immediate aftermath

The survivor study found that independent of whether their loved one's death was violent or not, survivors' perceptions of police officers' and VS workers' support predicted peritraumatic distress. In turn, peritraumatic distress was the strongest predictor of PTSD and CG symptoms two to three years later. In the second study, first responders' distress at survivor reactions predicted less helpful behaviour towards survivors, as well as peritraumatic distress in the immediate aftermath and STS symptoms up to 19 months later. Each party has the potential to find the other one threatening: perceived lack of support may exacerbate survivors' feelings of helplessness, confusion, and disempowerment; while witnessing survivors' distress may leave first responders feeling vulnerable and helpless to change the situation.

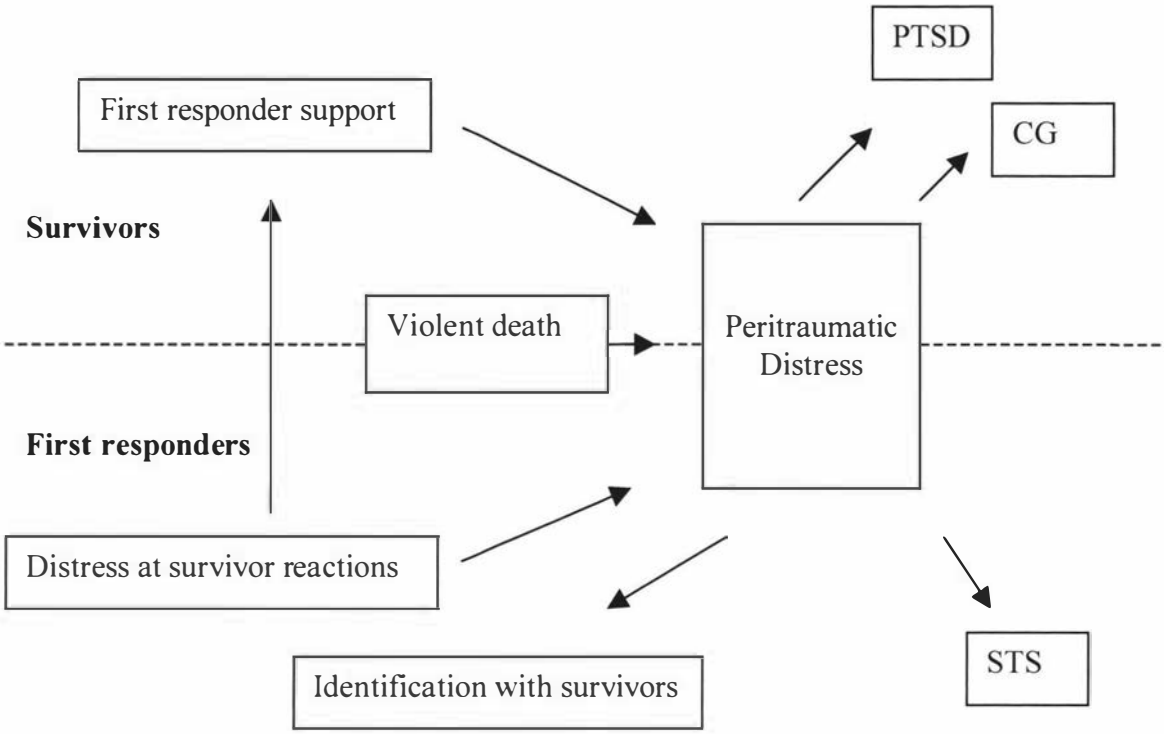

Figure 12.1 Model of predictors of peritraumatic distress and symptoms of PTSD, CG, and STS in survivors and first responders

Complaints regarding first responder support highlighted that survivors are particularly sensitive to deficits in the I CARE needs of information, control, and empathy. While first responders were not matched to the survivors they actually worked with, they reported "cure" behaviours that tended to mirror these complaints. First responders with greater peri-event reactions were more likely to use words/terminology that were difficult to understand, discourage body viewing, prevent the survivor from talking about the death, and show insensitivity. First responders need to be aware that distress evoked by interacting with survivors may inhibit their best intentions to offer support after a crisis. This reinforces that the I CARE mnemonic is a useful method in teaching first responders that in meeting survivors' immediate needs, the focus should be on "care, not cure".

Factors contributing to peritraumatic distress

Violent death (regardless of whether it is from accident, suicide, or homicide) also predicted peritraumatic distress in both survivors and first responders, while identification with survivors was a further predictor among first responders (see Figure 12.1). Peri-event variables accounted for more variance in peritraumatic distress than pre and post-event factors in both samples. This indicates that peritraumatic distress risk factors are those likely to be perceived to be more threatening *at the time of the event*, as opposed to factors present before or after the event.

Theories of PTSD, CG, and STS

This was the first known study to show that after controlling for current distress, peritraumatic distress was the biggest predictor not only of PTSD symptoms, but also of CG in survivors and of STS in first responders (equal with distress at survivor reactions; see Figure 12.1). Cognitive theories of PTSD argue that peritraumatic distress disrupts the processing of trauma information, resulting in PTSD. This study provides early evidence that peritraumatic distress may also disrupt 1) grief information relating to the survivor's loss of relationship with the deceased resulting in CG; and 2) secondary trauma information relating to interactions with the survivor resulting in STS.

The fundamental role of peritraumatic distress in understanding grief and trauma reactions across both samples raises the question of what can be done to reduce peritraumatic distress. Given that violent death is a fixed factor and that neither pre nor post-event variables predicted peritraumatic distress, the data imply that first responders have the potential to reduce survivors' distress by simply meeting their needs. However, the success of such support depends on first responders being able to manage their responses to survivors' distress because this affects both their ability to meet these needs and their chances of developing STS symptoms. This reinforces the need for an evidence-based and needs-based early intervention, such as the I CARE psychological first aid model. I CARE recognises that in order for trauma workers to offer "care, not cure", they need to first reduce their own anxiety during interactions with victims/survivors.

As expected, peri-event variables explained more variance in PTSD, CG, and STS symptoms than pre-event (e.g., gender, age, trauma resolution) and post-event variables

(e.g. coping style, support). This makes a clear case for focusing on situation-specific variables in trauma research, particularly those that are subjective (e.g., peri-event reactions), rather than purely objective (e.g., mode of death).

In conclusion, much of the initial and long-term distress that survivors and first responders experience results from how they react to each other soon after the death. Indeed, it appears that the immediate aftermath of a sudden death is a critical period for both those bereaved and those helping.

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APPENDIX A

Table 13.1 *Proposed criteria for prolonged grief disorder*

Category	Definition
A	Event: Bereavement (loss of a significant other).
B	Separation distress: The bereaved person experiences yearning (e.g., craving, pining, or longing for the deceased; physical or emotional suffering as a result of the desired, but unfulfilled, reunion with the deceased) daily or to a disabling degree.
C	Cognitive, emotional, and behavioural symptoms: The person must have five (or more) of the following symptoms experienced daily or to a disabling degree: 1. Confusion about one's role in life or diminished sense of self (i.e., feeling that a part of oneself has died) 2. Difficulty accepting the loss 3. Avoidance of reminders of the reality of the loss 4. Inability to trust others since the loss 5. Bitterness or anger related to the loss 6. Difficulty moving on with life (e.g., making new friends, pursuing interests) 7. Numbness (absence of emotion) since the loss 8. Feeling that life is unfulfilling, empty, or meaningless since the loss 9. Feeling stunned, dazed, or shocked by the loss
D	Timing: Diagnosis should not be made until at least six months have elapsed since the death.
E	Impairment: The disturbance causes clinically significant impairment in social, occupational, or other important areas of functioning (e.g., domestic responsibilities).
F	Relation to other mental disorders: The disturbance is not better accounted for by major depressive disorder, generalised anxiety disorder, or posttraumatic stress disorder.

From Prigerson et al. (2007)

APPENDIX B

INTRODUCTORY LETTER TO SURVIVORS

Dear

Your name is one of 400 generated randomly from those recorded on our database as having had personal contact with a Victim Support volunteer in relation to a sudden death in 2004 or 2005. This may have been the death of someone you did not know, in which case, please disregard the following information. However, if your contact with Victim Support was in relation to the death of someone you knew personally, please read on.

Victim Support is committed to meeting the needs of all victims of crime and crisis in New Zealand. A large proportion of our work involves supporting people affected by a sudden death, including from homicide, suicide, accidental death and sudden infant death. We are fortunate to have the opportunity of participating in a nationwide study examining the psychological impact on victims, police officers and our volunteer support workers in the immediate aftermath of a sudden death. This research has been carefully planned by Massey University, in consultation with bereaved families, grief and trauma experts, senior Maori representatives, New Zealand Police and Victim Support National Office. It will involve nearly 1000 police officers, Victim Support volunteers and bereaved survivors, like yourself, from all over the country. The study will help Victim Support and the Police improve our services to bereaved family and friends of people who die suddenly.

We would greatly appreciate your consideration in participating in this important study. It would involve completing a mostly tick-box questionnaire, which asks about your feelings during and after your interactions with Police and Victim Support following the death of your loved one, friend, neighbour or colleague. Your participation is voluntary and anonymous. Your questionnaire will not be matched with your name so you will not be personally identifiable, and neither Victim Support nor the Police will be shown your completed questionnaire.

Please inform us if you do *not* wish your name and address to be given to the researcher. Your contact details are only required for the purposes of the researcher sending you an information sheet and questionnaire, followed by a reminder postcard, and finally a summary of findings at completion of the study. Your details will remain confidential throughout the study, accessible only to the researcher by password, and will be destroyed at the completion of the study. If you do *not* wish to be sent a questionnaire and information sheet, please contact Michelle at Victim Support National Office by Friday, 25 July 2007 on (04) 474 8862 or email michelle@victimsupport.org.nz.

You are welcome to look through the questionnaire and accompanying information, which outlines your rights and steps to protect your anonymity, before deciding whether you wish to complete it or not. You are not obliged to answer every question. Remember that Victim Support is a free and confidential service, available 24-hours by ringing our freephone 0800 842 846. Our website is www.victimsupport.org.nz .

Yours sincerely
Marie Knight
Chief Executive

APPENDIX C

SURVIVOR INFORMATION SHEET

DEALING WITH SUDDEN DEATH AS A BEREAVED SURVIVOR

Information Sheet

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Hello, kia ora,
Victim Support has already kindly informed you about the opportunity to participate in this study. My name is Petrina Hargrave and I am undertaking research into the effects of sudden death on New Zealanders for my doctoral thesis in psychology at Massey University. I understand that you experienced the sudden loss of someone close to you in 2004 or 2005. I wish to extend my sincere sympathy to you.

Through my support work with bereaved people, I have located a need for more research into the immediate needs of the bereaved. I hope that we can learn from people like you who have experienced a sudden death so that the best care possible can be provided at this difficult time. I will outline what this study is about and how you may be able to help below. Please do not hesitate to get in touch with me or my supervisors if you have any questions or would like more information on grief support services.

Kua tukua atu e te Manaaki Tangata (Victim Support) tēnei rārangi pepa uiui ki a koe me taku tautoko. Ko taku īngoa ko Petrina Hargrave, ā, kei te rangahautia e ahau te āhuatanga mate ohorere o ngā tāngata o Aotearoa mo taku tohu kairangi ki roto i te kaupapa Hinengaro Tangata ki te Whare Wānanga te Kunenga ki Pūrehuroa. He mea whakamōhio mai ahau i mate ohorere tētahi Tangata tata ki a koe i te tau 2004/2005. Mai i tēnei mate ohorere, ka tukua atu taku arohanui ki a koe.

Nā runga i aku mahi mo te Manaaki Tangata, kua kitea e ahau kia whakatūria he kaupapa rangahau tōtika mo te hunga kua noho pani i roto i tēnei āhuatanga, mate ohorere. E tūmanako ana ahau kia puta mai ētahi māramatanga mai i a koe kia kitea me pēhea te tautoko i te hunga pani ka mahue mai i te mate ohorere o tētahi o rātau. Kei raro nei aku whakamārama mo tēnei rangahau, me te wāhanga hei āwhina mai māu. Mehemea he pātai āu, whakapā mai ki ahau ki aku kaitautoko rānei mo tēnei kaupapa pouri kaitautoko rātonga.

What is the purpose of this research?
When someone close to you dies suddenly, you often come in contact with a variety of support agencies and professionals, including the Police and Victim Support. Research shows that what happens immediately after a death, including the type of support offered to you and the way professionals relate to you, impacts on the level of distress you experience even in years to come. Helpers and professionals may also find it difficult to cope with sudden death and this can affect the level of support they offer the bereaved.

This study will investigate what aspects of dealing with a sudden death are most distressing for New Zealand Police officers, Victim Support volunteers and bereaved survivors. The aim is to identify how Police and Victim Support can best support the bereaved so that distress is minimised for themselves and those they help. We're interested in your experiences following the sudden death of someone close to you in 2004/2005. Your feedback will guide the support offered to others who may find themselves in similar circumstances to your own.

Questionnaires are being sent to:

- A random sample of 400 survivors nationwide who had contact with Victim Support in relation to a sudden death between 1 January 2004 and 30 June 2005. Of these survivors, 100 have been selected randomly from those recorded as Maori to ensure that Maori are well-represented in this study;
- A random sample of 250 police officers and 250 Victim Support volunteers nationwide who have been identified as having attended a sudden death between 1 July 2005 and 31 July 2006.

This study has been approved by the Victim Support National Office and the New Zealand Police.

Who is eligible to participate in this study?
To be eligible you must:

- Be aged over 16
- Have experienced the sudden death of a close family member or friend in 2004/2005
- Had face-to face contact with NZ Police and Victim Support within seven days after learning of the death.

What happens if you agree to take part?
If you consent to take part in this study, you will complete the enclosed questionnaire which should take no longer than 30 minutes.

What's in the questionnaire?
Mostly you will be asked to simply circle the most appropriate response for questions including:

- Your demographic characteristics (e.g. gender, age, education). Please note: These questions are being asked for statistical purposes only.
- Your own experience of traumatic events in your life (e.g. whether you have had a serious injury, witnessed a death)
- Details of the sudden death that affected you (e.g. cause of death, how you were notified of the death, whether you viewed the body)
- The helpfulness of Victim Support and Police actions after the death
- How you feel now in relation to the death

We respect that some questions may bring back painful memories. People who participate in bereavement research can find it painful. However, most also report that overall it is a positive experience to revisit what happened, share it with someone, and help others. You may wish to use the opportunity of participating in this study to seek further help and for this reason we have included a list of support options available to you at the end of this section and have a free phone line set up to assist you. Do not worry if you cannot remember the answers to some of the questions – just answer what you can and remember you are not obliged to answer every question.

What happens to the information you provide & how do we ensure your anonymity?

- This is an anonymous survey, so we have no way of identifying you when you return your questionnaire. Your completed questionnaire will be given a code and your responses will be entered into a computer for statistical analysis using that code. The purpose of the data analysis is to make comparisons between groups; no analyses between individuals will be made. To ensure confidentiality of data during the course of the study, a password will be required to access this data on computer.
- The researcher and her two supervisors are the ONLY people who will have access to the completed questionnaires and the data under any circumstances.
- The overall findings from the completed questionnaires will form the basis for Petrina Hargrave's PhD thesis.
- These findings may be submitted for publication in a scientific journal and presented at relevant conferences and workshops.
- Your coded data will be kept for at least five years after publication in a locked cabinet in Professor Janet Leathem's office.
- We will send you a summary of the overall findings of this study at the completion of the project (expected early 2008) to the same address to which this questionnaire has been sent, unless you inform the researcher of a change of address.
- Our record of your name and contact details will be kept in a password-required computer file, accessible only to the researcher, and will be destroyed after we have sent you the summary.
- ***A further note on your anonymity:*** *Because we can't tell who has returned their questionnaire, please be aware that you will still be sent a reminder postcard and a summary of findings even if you decide not to participate. If you do not wish to receive either of these, please ring 0800 000 363.*

What do I do now?

- Should you wish to participate, please complete the enclosed questionnaire and return it in the postage-paid (**no stamp required**) envelope enclosed *as soon as possible*.
- If you have difficulty in understanding written English, you may wish someone you know to help you complete the questionnaire.

Your rights

- Completion and return of the questionnaire implies consent. You have the right to decline to answer any particular question.

This project has been reviewed and approved by the Massey University Human Ethics Committee, Wellington Application 05/60. If you have any concerns about the ethics of this research, please contact Dr Karl Pajo, Chair, Massey University Campus Human Ethics Committee: WGTN telephone 04 801 5799, ext 6929, email humanethicswn@massey.ac.nz

There is a dedicated free phone line set up for the first 3 months of this study (till 23 July, 2007). You can phone 0800 000 363 any time to speak to Petrina Hargrave about any questions regarding the study or assistance in seeking specialist help for any distress that may arise from completing the questionnaire.

Any communication regarding Victim Support should be directed to the Victim Support National Office,
Ph: (04) 474 8862. Email: victim@xtra.co.nz

Thank you for your time

SUPPORT SERVICES AND SELF-CARE

You may wish to talk to someone after reflecting on your experiences for this questionnaire...
Acknowledging our own traumatic experiences and our responses to these can be a painful experience but it does not have to be one you face alone.

The following self-care tips may help:

Physical self-care

- Eat regular healthy meals
- Exercise – walk, run, dance, swim, play sports or do some other physical activity that you enjoy
- Catch up on sleep
- Plan holidays or short breaks

Psychological self-care

- Make time for self-reflection
- Write a journal
- Do something at which you are not an expert or in charge
- Say no to extra responsibilities sometimes

Emotional self-care

- Spend time with others whose company you enjoy
- Give yourself affirmations, praise yourself
- Identify comforting activities, objects people and places and seek them out
- Allow yourself to cry
- Find things that make you laugh

Spiritual self-care

- Meditate
- Find a spiritual or religious connection or community
- Spend time with nature

Excerpted from Saakvitine, K.W. & Pearlman, L.A. (Eds.). (1996). *Transforming the pain: A workbook on vicarious traumatization.* New York: Norton.

If you wish to speak to someone from a specialist national support service, the following options may help:

Victim Support
Phone toll free: **0800 VICTIM** (0800 842846)
http://www.victimsupport.org.nz

Relationship Services
Relationship services, with information and resources available on relationship issues
http://www.relate.org.nz/

Barnardos
Support and information for families
http://www.barnardos.org.nz
Ph (04) 385 7560

Carers NZ
Carers NZ info and support
http://www.carers.org.nz

Skylight
For children and young people (and their carers) dealing with loss and grief
http://www.skylight.org.nz
Ph 0800 299 100

New Zealand Cot Death Association/SIDS (Sudden Infant Death Syndrome)
Ph 0800 164 455

SANDS (Still birth and new born death support group)
Ph 0800 570 033

Miscarriage Support
http://www.miscarriagesupport.org.nz
Ph (09) 378 4060

Presbyterian Support
For counselling
http://www.psc.org.nz
Ph (04) 384 4629

Lifeline
24-hour counselling
Ph 0800 543 354

Samaritans
24-hour counselling
Ph 0800 726 666

APPENDIX D

Massey University

QUESTIONNAIRE FOR BEREAVED SURVIVORS

This questionnaire is divided into SIX sections:

Section A:	Background information about you
Section B:	Your experience of sudden death in 2004/2005: circumstances of the death, seeing the body, contact with Police/Victim Support
Section C:	How Police/Victim Support helped you after the death
Section D:	Your feelings and reactions at the time of the death and now
Section E:	Things that helped you cope
Section F:	Your past experience with trauma

Please try to answer all the questions in all sections. However, if you find this difficult, painful, or too personal, you are not obliged to answer. You may find it distressing to reflect back on your experience of loss and grief. Do not be surprised if you feel like you are reliving it all over again. This is normal. Even though it can be painful at the time, most people find it helps them to answer questions about loss and grief.

You may not feel that the questions here fully describe your personal experience. We have only included questions relevant to this study so that we don't take too much of your time. Some of these questions are from standardised measures that are widely-used in grief and trauma research; others have been specifically designed for this study. However, please feel free to share other aspects of your experience in writing at the end of the questionnaire if you wish.

You may prefer to answer this questionnaire in sections over several days or all at once. You may wish to have a close family member or friend with you when you complete the questionnaire to help you.

Don't forget that we can put you in touch with grief and support specialists if you would like to talk about your experience with someone as a result of completing this questionnaire. The information is on the green sheet in the questionnaire pack.

Thank you for your time.

SECTION A: BACKGROUND INFORMATION

First we would like some general background information about you. Please tick the number for the answer that is best for you or give details in the spaces provided. For example, in Question 1, if you are male you would tick the box as follows: 1 ☑ Male

Office use only

1 What is your gender? 1 ☐ Male 2 ☐ Female

2 How old were you at your last birthday? .....

3 What ethnicity do you identify with most?

1 ☐ New Zealand European

2 ☐ New Zealand Maori
Ko wai koe?
.....
.....

3 ☐ Pacific Island Nation

4 ☐ Chinese

5 ☐ Indian

6 ☐ Other. Please specify:
.....

4 What is your current marital status?

1 ☐ Single

2 ☐ In relationship but not living together

3 ☐ Living with partner/married/ civil union

4 ☐ Separated or divorced

5 ☐ Widowed

5 What is your religion/faith?

1 ☐ No religion or spiritual beliefs

2 ☐ Personal spiritual beliefs

3 ☐ Christian

4 ☐ Muslim

5 ☐ Jewish

6 ☐ Buddhist

7 ☐ Hindu

8 ☐ Other. Please specify:
.....

6 What is your highest educational qualification or equivalent qualification?

1 ☐ No school qualification

2 ☐ School Certificate / NCEA Level 1

3 ☐ Sixth Form Certificate / NCEA Level 2

4 ☐ University Entrance /Bursary/ NCEA Level 3

5 ☐ Trade/Professional certificate/diploma/NCEA Level 4

6 ☐ Bachelor degree

7 ☐ Postgraduate degree or diploma

7 What is your MAIN current employment status?

1 ☐ Employed full-time
2 ☐ Employed part-time
3 ☐ Student
4 ☐ Homemaker
5 ☐ Retired
6 ☐ Unemployed / beneficiary

8 What is your annual income?

1 ☐ $0- $15,000
2 ☐ $15,001-$30,000
3 ☐ $30,001-$45,000
4 ☐ $45,001-$60,000
5 ☐ $60,001-$75,000
6 ☐ $75,001 or more

9 Do you live in a:

1 ☐ City
2 ☐ Provincial town or rural region

SECTION B: YOUR EXPERIENCE OF SUDDEN DEATH IN 2004/2005

The following questions relate to your experience around the time that you experienced the sudden death of someone close to you in 2004/2005, for which you had interactions with the Police and Victim Support as a result.

What if more than one person died?
Sometimes people experience the death of more than one person they know from a fatal incident, e.g., a road accident that claims the lives of a group of friends or a family that dies in a house fire. Sometimes these deaths occur simultaneously, other times they occur several hours apart or even several weeks apart. If you experienced multiple losses from one incident, this is likely to impact on how you felt at the time of the deaths and how you feel now. It also may cause confusion when you answer some of the questions. To make it easier for you, we will only ask you about one death. You may nominate the death that you would most like to answer questions about but it must be a sudden death for which you had contact with the Police and Victim Support. Some of the questions refer to being informed of the death and seeing the body so if you have experienced either of these your answers will be particularly beneficial to this research.

Please answer the remainder of the questionnaire in relation to ONE death only.

Please tick the box that corresponds to the answer that is best for you or write your answer in the space provided.

The next 7 questions are about the circumstances of the person's death

1 When did this death occur? In the month of....., in the year .....

2 As a direct result of the incident that occurred on the date above, did you experience the death of more than one person you knew?

1 ☐ No
2 ☐ Yes

3 Please circle the number that best describes your relationship with the person who died. The person who died was my:

1 ☐	Child /stepchild	2 ☐	Parent/step-parent
3 ☐	Spouse (husband/wife/partner)	4 ☐	Brother/sister/step-sibling
5 ☐	Other family/relative/whanau	6 ☐	Friend
7 ☐	Neighbour	8 ☐	Work colleague
9 ☐	Other. Please specify:		

4 How old was the person who died?

..... months old OR ..... years old
If you are unsure, please estimate the age range (e.g., 70 to 80 years old).....

5 Which of the following <u>best</u> describes their cause of death?

1 ☐	Sudden death from health-related problem (e.g., heart attack)	2 ☐	Sudden Infant Death Syndrome (SIDS) / "cot death"
3 ☐	Transport / road accident (e.g., car, plane, train, boat, tractor, bicycle or pedestrian)	4 ☐	Other accidental death (e.g., drowning, fall, poisoning, fire, electrocution, explosives, gunshot, natural disaster, workplace/industrial)
5 ☐	Confirmed or suspected homicide/manslaughter	6 ☐	Confirmed or suspected suicide
7 ☐	Sudden death from unknown causes	8 ☐	Other. Please specify: .....

6 Were you directly involved as a victim of the incident that caused the death? (e.g., you survived the situation that killed the person, such as you escaped with or without injury from a fire or car crash)

1 ☐	No	2 ☐	Yes

7 If the death resulted from the fault of another party, has an arrest been made?

1 ☐	No	2 ☐	Yes
3 ☐	Not applicable		

The next 4 questions relate to how you found out about the death

8 How did you find out about the death?

1 ☐ I witnessed the person die *(Go to Question 11)*

2 ☐ I was notified by someone face-to-face

3 ☐ I was notified by someone over the telephone

4 ☐ I heard about it from the media

5 ☐ I was notified by someone in an email

6 ☐ I was notified by someone in a text message

9 Who notified you of the death?

1 ☐ The police

2 ☐ Hospital staff

3 ☐ Family or friends

4 ☐ Other. Please specify:
.....

10 Where were you notified of the death?

1 ☐ At home

2 ☐ At the scene of the death

3 ☐ At hospital

4 ☐ At work

5 ☐ At the police station

6 ☐ Other. Please specify:
.....

11 Did you have anyone with you when you learnt of this death, other than the person(s) who notified you? Tick all that apply.

1 ☐ No

2 ☐ Yes, a family member or friend

3 ☐ Yes, a Victim Support volunteer

4 ☐ Yes, a chaplain, priest, vicar, church minister or religious/spiritual representative

5 ☐ Yes, a kaumatua or elder of my culture

6 ☐ Yes, other. Please specify:
.....

The next 4 questions are about your experience with the body of the person who died

12 Did you discover the body of the person who died? 1 ☐ No 2 ☐ Yes

13 Did you formally identify the person's body? 1 ☐ No 2 ☐ Yes

14 Did you view the person's body or view photographs of their body?

1 ☐ No
→ Did you regret not viewing the body or the photographs?

1 ☐ No 2 ☐ Yes

(Now please go to Question 16)

2 ☐ Yes
→ Did you regret viewing the body or the photographs?

1 ☐ No 2 ☐ Yes

(Continue to Question 15)

15 Where did you view the person's body or the photographs of the body? Please tick as many as apply.

1 ☐ At the scene of the death
2 ☐ At the mortuary
3 ☐ At the hospital
4 ☐ At the funeral home
5 ☐ At home
6 ☐ At the funeral service/tangi
7 ☐ Other. Please specify:
.....

The next 5 questions are about your contact with Police and /or Victim Support

16 Please indicate the areas in which you had contact with Police in relation to the person's death. Tick all that apply.

1 ☐ At the death scene
2 ☐ When being notified of the person's death
3 ☐ Identifying the person's body
4 ☐ Viewing the person's body
5 ☐ Investigation into the person's death
6 ☐ Coroner's inquest/hearing
7 ☐ Court trial relating to the death
8 ☐ Other. Please specify:
.....

17 Approximately how many hours of contact did you have with Police regarding this death? ..... hour(s)

18 Please indicate the areas in which you had contact with Victim Support in relation to the death. Tick all that apply.

1 ☐ At the death scene
2 ☐ When being notified of the person's death
3 ☐ General support after the death
4 ☐ Identifying the person's body
5 ☐ Viewing the person's body
6 ☐ Victim Impact Statement
7 ☐ Court trial relating to the death
8 ☐ Coroner's inquest/hearing
9 ☐ Other. Please specify:
.....

19 Approximately how many hours of contact did you have with Victim Support regarding this death? .....hour(s)

SECTION C: HELPFUL/UNHELPFUL ACTIONS AFTER THE DEATH

The following are a list of actions that people may or may not find helpful after someone close to them dies.

Please think back to the contact you had with the Police and/or Victim Support immediately after the death of the person you are referring to in this questionnaire.

To what extent did the Police and/or Victim Support engage in the following actions immediately after the death?

Please circle the number that best describes the extent to which you feel each action below on the left was fulfilled by first, the Police, and second, Victim Support. If the action does not apply to your situation, please circle NA (Not Applicable).

0.....**1**.....**2**.....**3**.....**4**.....**NA**
not at all not really a little bit quite a lot very much not applicable

Did they...

Provide or obtain information about the circumstances of the death	*Police*	0	1	2	3	4	NA
	Victim Support	0	1	2	3	4	NA
Provide information about grief/ how to cope with death	*Police*	0	1	2	3	4	NA
	Victim Support	0	1	2	3	4	NA
Provide or obtain information about what formalities would happen next or what to do next (e.g., funeral preparations, post-mortem, police investigation, coroner's inquest)	*Police*	0	1	2	3	4	NA
	Victim Support	0	1	2	3	4	NA
Ensure that follow-up support (e.g., counselling, support agencies) was available	*Police*	0	1	2	3	4	NA
	Victim Support	0	1	2	3	4	NA
Let you know how you can contact them for further information/help	*Police*	0	1	2	3	4	NA
	Victim Support	0	1	2	3	4	NA
Hold back information, perhaps to protect you	*Police*	0	1	2	3	4	NA
	Victim Support	0	1	2	3	4	NA
Speak using words or terminology that were difficult to understand	*Police*	0	1	2	3	4	NA
	Victim Support	0	1	2	3	4	NA
Respect your cultural, ethnic or religious customs following the death	*Police*	0	1	2	3	4	NA
	Victim Support	0	1	2	3	4	NA

0.....**1**.....**2**.....**3**.....**4**.....**NA** not at all not really a little bit quite a lot very much not applicable							
Did they...							
Encourage family and friends of the person who died to make their own decisions	*Police*	0	1	2	3	4	NA
	Victim Support	0	1	2	3	4	NA
Respect my wishes about matters relating to the death	*Police*	0	1	2	3	4	NA
	Victim Support	0	1	2	3	4	NA
Demonstrate helpfulness without being intrusive	*Police*	0	1	2	3	4	NA
	Victim Support	0	1	2	3	4	NA
Take over tasks that you would normally do	*Police*	0	1	2	3	4	NA
	Victim Support	0	1	2	3	4	NA
Express condolences or sympathy at the loss	*Police*	0	1	2	3	4	NA
	Victim Support	0	1	2	3	4	NA
Encourage family and friends to say goodbye to the person who died	*Police*	0	1	2	3	4	NA
	Victim Support	0	1	2	3	4	NA
Do or say things to make the loss seem less significant	*Police*	0	1	2	3	4	NA
	Victim Support	0	1	2	3	4	NA
Advise family and friends not to see the body of the person who died	*Police*	0	1	2	3	4	NA
	Victim Support	0	1	2	3	4	NA
Remind you that things could be worse	*Police*	0	1	2	3	4	NA
	Victim Support	0	1	2	3	4	NA
Allow family and friends of the person who died to express their emotions	*Police*	0	1	2	3	4	NA
	Victim Support	0	1	2	3	4	NA
Prevent the family and friends of the person who died from talking about the death	*Police*	0	1	2	3	4	NA
	Victim Support	0	1	2	3	4	NA
Tell you that the death was for the best	*Police*	0	1	2	3	4	NA
	Victim Support	0	1	2	3	4	NA

Do or say things to prevent you from getting upset	*Police*	0	1	2	3	4	NA
	Victim Support	0	1	2	3	4	NA
Show concern and caring for people of all ages connected to the person who died	*Police*	0	1	2	3	4	NA
	Victim Support	0	1	2	3	4	NA
Demonstrate insensitivity and lack of understanding	*Police*	0	1	2	3	4	NA
	Victim Support	0	1	2	3	4	NA
Spend time with you in an unhurried manner	*Police*	0	1	2	3	4	NA
	Victim Support	0	1	2	3	4	NA
Show their own emotions	*Police*	0	1	2	3	4	NA
	Victim Support	0	1	2	3	4	NA
Listen to family and friends of the person who died	*Police*	0	1	2	3	4	NA
	Victim Support	0	1	2	3	4	NA

Please indicate how helpful you found the Police and Victim Support around the time of this person's death overall

0.....**1**.....**2**.....**3**.....**4**

Not at all helpful Not very helpful A little helpful Quite helpful Very helpful

Police	0	1	2	3	4
Victim Support	0	1	2	3	4

Please indicate if there was any type of support that you <u>did NOT receive from the POLICE in the immediate aftermath or in the longer term of the death</u> that would have been helpful. Explain briefly.

Please indicate if there was any type of support that you did NOT receive from VICTIM SUPPORT in the immediate aftermath or in the longer term of the death that would have been helpful. Explain briefly.

SECTION D: YOUR FEELINGS AND REACTIONS RELATING TO THE DEATH

Now think about your own reactions DURING AND IMMEDIATELY AFTER the time that you found out about the person's death.

How true were the following statements around this time?

Please circle the number for the answer that best describes your distress for each reaction below.

	0 not at all true	1 slightly true	2 somewhat true	3 very true	4 extremely true
I felt helpless to do more	0	1	2	3	4
I felt sadness and grief	0	1	2	3	4
I felt frustrated and angry I could not do more	0	1	2	3	4
I felt afraid for my own safety	0	1	2	3	4
I felt guilt that more was not done	0	1	2	3	4
I felt ashamed of my emotional reactions	0	1	2	3	4
I felt worried about the safety of others	0	1	2	3	4
I had the feeling I was about to lose control of my emotions	0	1	2	3	4
I had difficulty controlling my bowel or my bladder	0	1	2	3	4

I was horrified by what happened	0	1	2	3	4
I had physical reactions like sweating, shaking, and my heart pounding	0	1	2	3	4
I felt I might pass out	0	1	2	3	4
I thought I might die	0	1	2	3	4

Now please think about your reactions and feelings NOW to the person's death.

Below is a list of difficulties people sometimes have after stressful life events. Please read each item, and then indicate how distressing each difficulty has been for you IN THE LAST SEVEN DAYS with respect to the person's death.
How much were you distressed or bothered by these difficulties in the last seven (7) days?

0.....1.....2.....3.....4
not at all a little bit moderately quite a bit extremely

Any reminder brought back feelings about it	0	1	2	3	4
I had trouble staying asleep	0	1	2	3	4
Other things kept making me think about it	0	1	2	3	4
I felt irritable and angry	0	1	2	3	4
I avoided letting myself get upset when I thought about it or was reminded of it	0	1	2	3	4
I thought about it when I didn't mean to	0	1	2	3	4
I felt as if it hadn't happened or wasn't real	0	1	2	3	4
I stayed away from reminders about it	0	1	2	3	4
Pictures about it popped into my mind	0	1	2	3	4
I was jumpy and easily startled	0	1	2	3	4
I tried not to think about it	0	1	2	3	4
I was aware that I still had a lot of feelings about it, but I didn't deal with them	0	1	2	3	4
My feelings about it were kind of numb	0	1	2	3	4
I found myself acting or feeling as though I was back at that time	0	1	2	3	4
I had trouble falling asleep	0	1	2	3	4
I had waves of strong feelings about it	0	1	2	3	4
I tried to remove it from my memory	0	1	2	3	4

How much were you distressed or bothered by these difficulties in the last seven (7) days? (continued)

0.....1.....2.....3.....4
not at all a little bit moderately quite a bit extremely

I had trouble concentrating	0	1	2	3	4
Reminders of it caused me to have physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart	0	1	2	3	4
I had dreams about it	0	1	2	3	4
I felt watchful or on-guard	0	1	2	3	4
I tried not to talk about it	0	1	2	3	4

Below is a list of things people often experience when they are grieving.

Please circle the answer that best describes how you feel *right now* about the person who died.

0.....1.....2.....3.....4
never rarely sometimes often always

I think about this person so much that it's hard for me to do the things I normally do	0	1	2	3	4
Memories of the person who died upset me	0	1	2	3	4
I feel I cannot accept the death of the person who died	0	1	2	3	4
I feel myself longing for the person who died	0	1	2	3	4
I feel drawn to places and things associated with the person who died	0	1	2	3	4
I can't help feeling angry about his/her death	0	1	2	3	4
I feel disbelief over what happened	0	1	2	3	4
I feel stunned or dazed over what happened	0	1	2	3	4
Ever since she/he died, it is hard for me to trust people	0	1	2	3	4
Ever since she/he died, I feel like I have lost the ability to care about other people or I feel distant from people I care about	0	1	2	3	4
I have pain in the same area of my body or have some of the same symptoms as the person who died	0	1	2	3	4
I go out of my way to avoid reminders of the person who died	0	1	2	3	4
I feel that life is empty without the person who died	0	1	2	3	4
I hear the voice of the person who died speak to me	0	1	2	3	4
I see the person who died stand before me	0	1	2	3	4

I feel that it is unfair that I should live when this person died	0	1	2	3	4
I feel bitter over this person's death	0	1	2	3	4
I feel envious of others who have not lost someone close	0	1	2	3	4
I feel lonely a great deal of the time ever since she/he died	0	1	2	3	4

The statements below may describe how you have felt during the <u>past seven (7)days, including today.</u>
Circle the appropriate number to describe how distressing you have found these things over this time.

1.....2.....3.....4
Not at all a little quite a bit extremely

Difficulty in speaking when you are excited	1	2	3	4
Trouble remembering things	1	2	3	4
Worried about sloppiness or carelessness	1	2	3	4
Blaming yourself for things	1	2	3	4
Pains in the lower part of your back	1	2	3	4
Feeling lonely	1	2	3	4
Feeling blue	1	2	3	4
Your feelings are being easily hurt	1	2	3	4
Feeling others do not understand you or are unsympathetic	1	2	3	4
Feeling that people are unfriendly or dislike you	1	2	3	4
Having to do things very slowly in order to be sure you are doing them right	1	2	3	4
Feeling inferior to others	1	2	3	4
Soreness of your muscles	1	2	3	4
Having to check and double check what you do	1	2	3	4
Hot or cold spells	1	2	3	4
Your mind going blank	1	2	3	4
Numbness or tingling in parts of your body	1	2	3	4
A lump in your throat	1	2	3	4
Trouble concentrating	1	2	3	4
Weakness in parts of your body	1	2	3	4
Heavy feelings in your arms and legs	1	2	3	4

SECTION E: THINGS THAT HAVE HELPED YOU COPE WITH THE LOSS

Please list THREE things that have helped you the most in dealing with the sudden death in 2004/2005. Examples may include anything from counselling, drinking to take your mind off it, to praying.

Please be as honest as possible. Write your answers in the space below.

SECTION F: YOUR OTHER PERSONAL EXPERIENCES OF TRAUMA

Listed below are a few traumatic experiences, which may have happened to you at some stage in your life, either at work or otherwise.

Please tick the most appropriate answer for you.

1 Have you ever served in military combat?

1 ☐ No
2 ☐ Yes, in the last 12 months
3 ☐ Yes, more than 12 months ago

2 Has anyone ever taken something from you by force or threat of force, such as in a robbery, mugging or hold-up?

1 ☐ No
2 ☐ Yes, in the last 12 months
3 ☐ Yes, more than 12 months ago

3 Have you ever been assaulted, injured or had your life placed under threat by another person?

1 ☐ No
2 ☐ Yes, in the last 12 months
3 ☐ Yes, more than 12 months ago

4 **Has anyone ever made you have sex or sexual contact by using force or threatening to harm you? This includes any type of unwanted sexual activity.**

1 ☐ No
2 ☐ Yes, in the last 12 months
3 ☐ Yes, more than 12 months ago

5 **Have you ever suffered injury or property damage because of fire?**

1 ☐ No
2 ☐ Yes, in the last 12 months
3 ☐ Yes, more than 12 months ago

6 **Have you ever suffered injury, evacuation, or property damage because of severe weather or either a natural or human-made disaster?**

1 ☐ No
2 ☐ Yes, in the last 12 months
3 ☐ Yes, more than 12 months ago

7 **Apart from the person for whom you have answered this questionnaire about, has a close friend or family member ever died because of an accident, homicide, or suicide?**

1 ☐ No
2 ☐ Yes, in the last 12 months
3 ☐ Yes, more than 12 months ago

8 **Have you ever been in a motor vehicle accident serious enough to cause injury to one or more passengers?**

1 ☐ No
2 ☐ Yes, in the last 12 months
3 ☐ Yes, more than 12 months ago

9 **Have you ever had some other shocking or distressing experience, something that has not been mentioned yet?**

1 ☐ No
2 ☐ Yes, in the last 12 months
3 ☐ Yes, more than 12 months ago

Please specify:.....

10 **Which of the above events was the most traumatic for you personally? Please indicate by writing the number of the question below. (e.g., for robbery, the question number is 2)**

The experience that has been most traumatic for me was mentioned in question number.....

Finally, please think about your CURRENT feelings about the experience that was most traumatic for you, as indicated in Questions 10 in the last section.

Please indicate the extent to which you agree with the following statements by circling the number that best describes how you feel now about the experience.

	0 not at all	1 slightly	2 moderately	3 quite a bit	4 completely
I have moved on and left this event in the past	0	1	2	3	4
Overall, this event feels resolved to me	0	1	2	3	4
I have come to terms with this experience	0	1	2	3	4
It's distressing for me to think about it	0	1	2	3	4

THANK YOU. YOUR HELP IS MUCH APPRECIATED. We want you to know that your contribution in completing this questionnaire will be used to benefit other people in New Zealand who experience the sudden death of someone close to them.

If you feel there is anything else about your experience with sudden death that may be helpful to others, please feel free to write your thoughts down on the back of this page.

It can be difficult to remember back to these details of the death; you may feel like you are reliving it all again. This is normal. You may wish to refer back to the Support Services and Self-Care sheet now or take some time to reflect.

Once again, thank you and all the best.

Petrina Hargrave
Massey University, Wellington

APPENDIX E

REMINDER POSTCARD TO ALL PARTICIPANTS

REMINDER: Massey University sudden death research

Dear Participant

Thank you if you have already completed and returned your questionnaire.

This is a reminder if you wish to participate in this research and have not yet returned your completed questionnaire. Please return as soon as possible to: Freepost 18-1246, Petrina Hargrave, School of Psychology, Massey University, Private Bag 756, Wellington.

If you have lost your questionnaire and would like another, please ring free phone 0800 000 363 and state:

1) That you would like another questionnaire.
2) IMPORTANT: Please state whether you are a Police Officer, Victim Support Volunteer or Bereaved Survivor.
3) The address you would like it sent to.

Because this research is anonymous, you do not need to leave your name.

This is the only reminder that will be sent. Your help is much appreciated.
Thank you,

Petrina Hargrave
Massey University

Table 13.2 *Survivor comments regarding support from police officers*

Positive comments	Negative comments	Complains category
I received a lot of support from Beau Webster, Blenheim Police. Because he was so supportive, I hardly found VS necessary.	Police didn't really have much to do with us here at home. Would have been good to see them follow up. Maybe arranging to talk to rescue people who came. Never got	Lack of follow-up support
The police did a brilliant job. The young constable was professional without being cold.	It might have helped if I had known sooner that my wife had died.	Lack of information / communication
My experience with the Police and VS workers through my ordeal of losing my dad and his friends were nothing more than amazing (they showed me that they had been affected by this crime). The detectives went out of their way to make this ordeal as easy as it could be for me. A death like my father's is something that has just about broken me but through the dedication and compassion of our police force, they helped me through each step.	Shoddy & inaccurate investigative report – no apologies for mistakes. Huge effort on our part to obtain second accurate report.	Lack of information / communication
Felt support from Police who reported suicide was brief. However, I had a friend in the police I contacted straight away and he took over making contacts for me and telling me what I needed to do. Was very helpful.	The sergeant was obnoxious but came back a week later to apologise after he had been spoken to by VS. He more or less accused me or killing my son and when asked to see my son again he refused until the woman constable said I had to see my son. The sergeant left my house in a bad temper leaving 2 young constables to help the undertaker.	Insensitive/ Intrusion
Couldn't have been more caring.	Difficult to get info out of police (didn't have any contact with them except over phone) regarding Andrew's body & getting him home from the mortuary after he died. VS were helpful in doing this.	Lack of information / communication
Very happy with their support	The police sergeant that attended appeared to want to get it over with and get out of it. The other police staff showed a lot more compassion. That night we gave information to the police that was not passed on. That information may have led to criminal charges.	Insensitive/ Intrusion Lack of information / communication

Table 13.2 *Survivor comments regarding support from police officers (continued)*

Positive comments	Negative comments	Complains category
The young constable who examined our child cried as he did so. I really appreciated that. I needed to feel everyone thought it was terrible..	I didn't know they would notify VS, so I was very taken aback to suddenly have 2 strangers on my doorstep.	Insensitive/ Intrusion
The dedication of our police force helped me through.	I felt shut out of what was going on, the police dealt more with my husband rather than us as a couple. Information we were given about events that took place before the death we gave to police and nothing was acted on. The information was very relevant to what led up to the death and it wasn't until we got to the coroner's hearing that we found out the information hadn't been handed on.	Lack of information / communication
	We received very little support from the police. The majority were rude and obnoxious. Only one female constable showed any compassion. The sergeant showed no respect for me or my family at the time. He was confrontational and bordering on physical. He returned three days later to apologise and offer support. The police were endeavouring to remove my brother's body as quickly as possible without any reference to us and were rude when I showed	Insensitive/ Intrusion
	Would have liked her blood cleaned up from my arena where she died. Felt quite interrogated by the police at the time they appeared to be trying to find someone to blame as it happened on our property.	Insensitive/ Intrusion
	Stupid cop talked to the media and hadn't spoken to the family.	Insensitive/ Intrusion
	Wrote a page about how they were distressed to collect son's belongings months after the accident and to be handed all this favourite things still wet and smelly (he had a car accident and landed in river). Also, police insisted that she identify her son's body before her husband arrived home (he was on his way from out of town).	Insensitive/ Intrusion

Table 13.2 *Survivor comments regarding support from police officers (continued)*

Positive comments	Negative comments	Complains category
	I had to wait for the police to arrive (approximately 1 hour after I arrived at Waikato Hospital) to be told that my son was dead (approximately 3 hours after his death). Although everyone I had asked knew the truth, medical personnel & VS could officially not tell me. However, by the time the police arrived the grapevine had been going and my mother had been informed, then told me when I rang to tell her of the crash. The not knowing for such a long period was incredibly distressing and in my view a failing on the part of the police.	Lack of information / communication
	With being a double murder, I found it hard to come to terms with the police holding things back from me from time to time.	Lack of information / communication
	I would have preferred the police to have informed me of my daughter's death as I was her next of kin on her driver's licence. The person who told me was very insensitive.	Lack of information / communication
	I was not informed by the police about my father's inquest – VS called me at 8pm the night before to let me know. Police had also not informed me of my father's death. I was told in error [that he had committed suicide 4 hours earlier] when I called the hospice about the health of my father.	Lack of information /communication
	NZ Police didn't help a lot with Kyle's death. NO contact with us after we rung them. When Australian police rang me I contacted NZ Police but appeared not interested.	Unhelpful
	I would have liked more understanding of the accident, not to be told wrong place, wrong time. Never really saw police, all done by email.	Unhelpful Lack of information / communication

Table 13.3 *Survivor comments regarding support from VS workers*

Positive comments	Negative comments	Complains category
VS were great follow-up months down the track with the phone calls.	No help at all really. Man was very insensitive. Had to find our own counselling for friends, family, people involved in accident. Really bad. Gave a few pamphlets and left.	Unhelpful Insensitive/ Intrusion
The lady from VS was fantastic, I can't fault her.	Should have given counsellor recommendations – names and contact details. Also ACC information relating to funeral grants & survivors grants. Nobody told me about this till 2 years after my husband's death. This would have saved me a lot of concern over financial worries.	Lack of information / communication
We couldn't have had a better VS [worker]. He went beyond the call of duty and we could phone him at any time of the day or night if we wanted him.	VS was offered to me but I did not want it...I think it is important to realise that some people in sudden death situations do not want help from anyone, they want to be left to themselves... VS felt like an intrusion to me.	Insensitive/ Intrusion
My experience with the Police and VS workers through my ordeal of losing my dad and his friends were nothing more than amazing (they showed me that they had been affected by this crime).	More 1-1 contact in the days following – support with WINZ, ideas for funeral. Personal contact would have been good a week or so after the funeral, once everyone had gone.	Lack of follow-up support
We were not asked whether we wanted VS, however we were very lucky in the support person we got. He was friendly and supportive and continued visiting us with his wife for many months after his professional duties were over. I personally did not get any benefit from his support but was very grateful for his concern and caring towards my mother.	They spoke briefly to my aunty on the phone. No one ever rang or visited after the tangi to see how myself and my 3 children were coping. It was New Year's Day – maybe that's why I've never heard from them since.	Lack of follow-up support
We will always be grateful for VS providing us with a lovely caring person to help us. We were able to call her when we needed her and she was there supporting us on the day we buried our daughter.	I would have preferred it if the person at the hospital had not talked a lot about the grief process. Dad had died and Mum was just alive at that stage. I would rather she had just been there but not offered information.	Insensitive/ Intrusion
VS were fantastic – he made sure I had someone to look after me before he would leave and a list of things I needed to do.	VS disappointed me because they only operate within office hours and are limited in what service they can provide. But then I was expecting them to be in lieu of absent family, which they were not. I felt I could not relate to them but only to the police officer who was directly involved.	Unhelpful

Table 13.3 *Survivor comments regarding support from VS workers (continued)*

Positive comments	Negative comments	Complains category
I had requested for VS to be with me at that time and they were tremendous. That's all I can say. Thank you.	In the long term, VS did not follow-up with an acknowledged grievance we had – at the time they felt it was a valid grievance but long-term, nothing has changed for future victims who may benefit.	Lack of follow-up support
VS came out to be support when my husband died suddenly in his chair. They also rang me several times and were a great help.	It has been about 2 ½ years since the tragic death of my daughter. Some longer term support would be of benefit.	Lack of follow-up support
Excellent support from VS. Some follow-up in the weeks following the death - one more phone call or contact - would have been good.	I had to wonder why they were there. At the time the shock was so great I really did not care who these people were. In hindsight, I feel their presence was really a waste of time at that very moment.	Unhelpful
Brilliant support from VS & in particular a woman named Kathy from Hamilton who looked after my children in the emergency room until family arrived & who provided huge support for me and my family over the following weeks.	I was in such shock, I didn't really know at first who they were and why they were there. They gave me their card and some pamphlets and told me to ring them if there was anything they could do. The last thing I really needed at that time was a handful of pamphlets.	Unhelpful
I thank God for VS. I never expected that an organisation like it would do so much for people like me (victim). Special thanks to Kathy Smith.	It would have been helpful to have had a follow-up call and any other help if required. Nothing following other than offer to call them if required.	Lack of follow-up support
I could not have wished for more.	When we returned to our local town 6 weeks later, the local VS person introduced herself and gave a contact number but the only other contact we had from her was in regards to the Victim Impact Statement. It seemed she felt the work had already been done with us – no follow-up to see what else she really could have helped with.	Lack of follow-up support
The 2 women from VS were rather naïve and inexperienced in life but they accepted my way of doing things rather than taking over. They were a quiet presence which was helpful until a friend arrived.	I no sooner stepped through the hospital door (to view my husband's body) when a very well-meaning man from VS came up very close to my face, took my hand and expressed sympathy. He then proceeded to tell me about VS and that he was there for me. All I wanted at that point was to see my husband. I felt very annoyed and wanted him to go away and leave me to deal with things.	Insensitive/ Intrusion

Table 13.3 *Survivor comments regarding support from VS workers (continued)*

Positive comments	Negative comments	Complains category
VS person was very helpful in a practical way, didn't try to counsel us.	No follow-up at all, even though one VS person was known to me slightly.	Lack of follow-up support
	They only were interested in providing support to me and my son, who also saw his father at the death scene. My other son and particularly my daughter received no support at all. I tried very hard to find support for my daughter and it was nearly impossible to find a free counselling service.	Unhelpful
	The lady [from VS] didn't talk at all. It felt I had to treat her like a guest in my home. I had to entertain her. She felt like an intruder in my grief.	Insensitive/ Intrusion
	They were only interested in talking to my father – no-one took time to talk to me.	Unhelpful
	I did not want to VS people but they turned up at my place and I felt it was an intrusion on my privacy. I had already phoned a close friend who brought another friend around to my place immediately. I then had to cope with "entertaining" the 2 VS people who were total strangers to me.	Insensitive/ Intrusion
	Would have liked some advice on counselling and less comparison with her [VS worker's]father's death. I felt the VS lady was of no use to me personally but maybe if she had called later when my family had all gone I would have appreciated it.	Lack of information / communication Insensitive/ Intrusion Lack of follow-up support Unhelpful

APPENDIX G

INTRODUCTORY LETTER TO POLICE OFFICERS

Dear Participant

Police (through the Research and Evaluation Steering Committee) have recently agreed to participate in research examining the impact on police officers of interacting with bereaved survivors following a sudden death. This is part of a wider national survey looking at the effects of sudden death on police officers, Victim Support volunteers and bereaved survivors.

The work will be conducted by a Massey University researcher and will examine (1) whether, to what degree, and how participants in sudden death situations can be distressed or traumatised through these interactions; and (2) how this distress can be effectively managed.

The research is to be conducted through a structured questionnaire (tick-box answers) and asks about experiences and feelings pertaining to the sudden death interaction with the deceased's close family or friends (known as bereaved survivors).

A sample of 250 Police officers who have been involved in a sudden death interaction with bereaved survivors between 1 July 2005 and 31 July 2006 has been randomly generated and you have been identified within this sample as a possible participant. Involvement in this research is voluntary and involves filling in a questionnaire about your experiences of, and feelings when, interacting with bereaved survivors in the sudden death environment.

If you agree to be involved in this research your contribution will be anonymous. Unless you inform us otherwise, your name will be given to the researcher so she can send you a questionnaire and information sheet, followed by a reminder postcard and finally a summary of findings at completion of the study, at which time your details will be destroyed. In the meantime, your name and internal mailbox address will be kept in a password-secure file, accessible only to the researcher. You will not be asked for your name in the questionnaire, so you will not be personally identifiable. The Police will not have access to any of the completed questionnaires or data. The research is of interest and benefit to New Zealand Police in considering its current training and operational practices in regard to this area of its duties, and I therefore ask you to give due consideration to participation in the project.

If you would like to be excluded from this research please contact Chris Scott, New Zealand Police Policy Unit, Office of the Commissioner, to indicate this (e-mail: Christopher.R.Scott@police.govt.nz) by 24 October 2006, after which date, participants will be sent a questionnaire and information sheet.

Yours sincerely

Bill Harrison
National Manager: Policy and Planning

APPENDIX H

POLICE INFORMATION SHEET

DEALING WITH SUDDEN DEATH AS A POLICE OFFICER

Information Sheet

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Hello, kia ora,
New Zealand Police has already kindly informed you about the opportunity to participate in this study. My name is Petrina Hargrave and I am undertaking research into the effects of sudden death on New Zealanders for my doctoral thesis in psychology at Massey University. Through my support work with bereaved people, I have located a need for more research into the immediate needs of the suddenly bereaved and those who work with them.

What is the purpose of this research?
As a police officer, you may interact with bereaved survivors when you work on a sudden death case (e.g., homicide, suicide, accidental death, sudden infant death, sudden death due to medical condition). Research shows that the immediate aftermath of a sudden death is an especially difficult period for the bereaved family and friends and the people who help them. This study will investigate what aspects of dealing with a sudden death are most distressing for New Zealand Police officers, Victim Support volunteers and bereaved survivors. The aim is to identify how Police and Victim Support can best support the bereaved so that distress is minimised for themselves and those they help. This study has been approved by the New Zealand Police and the Victim Support National Office.

Questionnaires are being sent to:

- A random sample of 400 survivors nationwide who had contact with Victim Support in relation to a sudden death in 2004. Of these survivors, 100 have been selected randomly from those recorded as Maori to ensure that Maori are well-represented in this study;
- A random sample of 250 police officers and 250 Victim Support volunteers nationwide who have been identified as having attended a sudden death between July 1, 2005 and July 31, 2006.

Who is eligible to participate in this study?
You have already been identified from Police records has having worked on at least one case involving a death that occurred suddenly (e.g., a homicide, accident, suicide, sudden infant death, heart attack, or sudden death from a medical condition or natural causes) between July 1, 2005 and July 31, 2006. To be eligible for participation you must be able to answer YES to the next two questions:

1) In one of these cases, did you have face-to-face contact with one or more persons who had a close relationship to the deceased? (E.g., family member, friend, workmate, neighbour)
2) Did this contact occur within seven days of the person(s) learning of the death?

Please note that if you have attended a case that meets the above criteria more recently than July 2006, you will be directed to answer questions on this most recent death if you complete the questionnaire.

What happens if you agree to take part?
If you consent to take part in this study, you will complete the enclosed questionnaire which should take no longer than 20 minutes.

What's in the questionnaire?
Mostly you will be asked to simply circle the most appropriate response for questions including:

- Your demographic characteristics (e.g. gender, age, education). Please note: These questions are being asked for statistical purposes only.
- Your experience with New Zealand Police (e.g. your length of service, rank)
- Your most recent experience in dealing with sudden death survivors as a police officer and your responses to this (e.g., circumstances of death, how you assisted the survivors, distressing aspects of working with the survivors)
- Your personal experience of traumatic events (e.g. whether you have ever been robbed or abused)

We respect that some questions may cause you concern or distress. We encourage you to utilise the expertise of New Zealand Police's welfare service. We have also included a list of other support options available to you at the end of this section.

What happens to the information you provide & how do we ensure your anonymity?

- This is an anonymous survey, so we have no way of identifying you when you return your questionnaire. Your completed questionnaire will be given a code and your responses will be entered into a computer for statistical analysis using that code. The purpose of the data analysis is to make comparisons between groups; no analyses between individuals will be made. To ensure confidentiality of data during the course of the study, a password will be required to access this data on computer.
- The researcher and her two supervisors are the ONLY people who will have access to the completed questionnaires and the data under any circumstances.
- The overall findings from the completed questionnaires will form the basis for Petrina Hargrave's PhD thesis.
- These findings may be submitted for publication in a scientific journal and presented at relevant conferences and workshops.
- Your coded data will be kept for at least five years after publication in a locked cabinet in Professor Janet Leathem's office.
- We will send you a summary of the overall findings of this study at the completion of the project (expected early 2008) to the same address to which this questionnaire has been sent, unless you inform the researcher of a change of address.
- Our record of your name and contact details will be destroyed after we have sent you the summary.
- ***A further note on your anonymity:*** *Because we can't tell who has returned their questionnaire, please be aware that you will still be sent a reminder postcard and a summary of findings even if you decide not to participate. If you do not wish to receive either of these, please ring 0800 000 363.*

What do I do now?

- Should you wish to participate, please complete the enclosed questionnaire and return it in the postage-paid envelope enclosed *as soon as possible.*

Your rights

- Completion and return of the questionnaire implies consent. You have the right to decline to answer any particular question.

There is a dedicated free phone line set up for the first 6 months of this study (till 5 April 2007).
You can phone 0800 000 363 any time to speak to Petrina Hargrave about any questions regarding the study or assistance in seeking specialist help for any distress that may arise from completing the questionnaire.

This project has been reviewed and approved by the Massey University Human Ethics Committee, Wellington Application 05/60. If you have any concerns about the ethics of this research, please contact Dr Karl Pajo, Chair, Massey University Campus Human Ethics Committee: WGTN telephone 04 801 5799, ext 6929, email humanethicswn@massey.ac.nz

Thank you for your time

SUPPORT SERVICES AND SELF-CARE

You may wish to talk to someone after reflecting on your experiences for this questionnaire...
Acknowledging our own traumatic experiences and our responses to these can be a painful experience but it does not have to be one you face alone.

The following self-care tips may help:

Physical self-care

- Eat regular healthy meals
- Exercise – walk, run, dance, swim, play sports or do some other physical activity that you enjoy
- Catch up on sleep
- Plan holidays or short breaks

Psychological self-care

- Make time for self-reflection
- Write a journal
- Do something at which you are not an expert or in charge
- Say no to extra responsibilities sometimes

Emotional self-care

- Spend time with others whose company you enjoy
- Give yourself affirmations, praise yourself
- Identify comforting activities, objects people and places and seek them out
- Allow yourself to cry
- Find things that make you laugh

Spiritual self-care

- Meditate
- Find a spiritual or religious connection or community
- Spend time with nature

Excerpted from Saakvitine, K.W. & Pearlman, L.A. (Eds.). (1996). *Transforming the pain: A workbook on vicarious traumatization.* New York: Norton.

Your Police Welfare Officer is there to support you in your work, however, if you wish to speak to someone from a specialist national support service, the following options may help:

Victim Support
Phone toll free: **0800 VICTIM** (0800 842846)
http://www.victimsupport.org.nz

Relationship Services
Relationship services, with information and resources available on relationship issues
http://www.relate.org.nz/

Barnardos
Support and information for families
http://www.barnardos.org.nz
Ph (04) 385 7560

Carers NZ
Carers NZ info and support
http://www.carers.org.nz

Skylight
For children and young people (and their carers) dealing with loss and grief
http://www.skylight.org.nz
Ph 0800 299 100

New Zealand Cot Death Association/SIDS (Sudden Infant Death Syndrome)
Ph 0800 164 455

SANDS (Still birth and new born death support group)
Ph 0800 570 033

Miscarriage Support
http://www.miscarriagesupport.org.nz
Ph (09) 378 4060

Presbyterian Support
For counselling
http://www.psc.org.nz
Ph (04) 384 4629

Lifeline
24-hour counselling
Ph 0800 543 354

Samaritans
24-hour counselling
Ph 0800 726 666

APPENDIX I

Massey University

SUDDEN DEATH QUESTIONNAIRE FOR POLICE OFFICERS

SECTION A: BACKGROUND INFORMATION

First we would like some general background information about you. Please tick the answer that is best for you or give details in the spaces provided. For example, in Question 1, if you are male you would tick the box as follows: 1 ☑ Male

1 What is your gender? 1 ☐ Male 2 ☐ Female **Office use only**

2 How old were you at your last birthday? .....

3 What ethnicity do you identify with most?

1 ☐ New Zealand European

2 ☐ New Zealand Maori
Ko wai koe?
.....
.....

3 ☐ Pacific Island Nation

4 ☐ Chinese

5 ☐ Indian

6 ☐ Other. Please specify:
.....

4 What is your current marital status?

1 ☐ Single

2 ☐ In relationship but not living together

3 ☐ Living with partner/married/ civil union

4 ☐ Separated or divorced

5 ☐ Widowed

5 What is your religion/faith?

1 ☐ No religion or spiritual beliefs

2 ☐ Personal spiritual beliefs

3 ☐ Christian

4 ☐ Muslim

5 ☐ Jewish

6 ☐ Buddhist

7 ☐ Hindu

8 ☐ Other. Please specify:
.....

6 What is your highest educational qualification or equivalent qualification?

1 ☐	No school qualification	2 ☐	School Certificate / NCEA Level 1
3 ☐	Sixth Form Certificate / NCEA Level 2	4 ☐	University Entrance /Bursary/ NCEA Level 3
5 ☐	Trade/Professional certificate/ diploma/ NCEA Level 4	6 ☐	Bachelor degree
7 ☐	Postgraduate degree or diploma		

7 How long have you been a police officer? ..... years OR ..... months

8 What is your rank?

1 ☐	Recruit	2 ☐	Probationary Constable
3 ☐	Constable	4 ☐	Senior Constable
5 ☐	Sergeant	6 ☐	Senior Sergeant
7 ☐	Inspector	8 ☐	Superintendent

9 Do you work in a:

1 ☐	City	2 ☐	Provincial town or rural region

SECTION B: YOUR MOST RECENT SUDDEN DEATH CASE

The rest of questionnaire relates to the most recent sudden death case you have worked on where you have interacted with survivors within 7 days of the survivors learning of the death. By sudden death we mean *homicide, suicide, accidental death, sudden infant death or any death that appeared violent, unnatural, unexpected, or suspicious*. By survivors, we mean the *next of kin, family, friends, neighbours and colleagues* of the person(s) who died.

If you were involved in a case resulting in multiple deaths, this is likely to impact on how you felt at the time and how you feel now. It also may cause confusion when you answer some of the questions. To make it easier for you, we will only ask you about one death. You may nominate the death which you would most like to answer questions about but it must be a sudden death for which you had contact with survivors.

Please tick the box that is best for you or write your answer in the space provided. Remember to answer in relation to one sudden death only.

1 Approximately how many sudden death cases where you had face-to-face contact with survivors have you had since you have been a police officer?

1 ☐	This was my first	2 ☐	2-5
3 ☐	6-10	4 ☐	11-15
5 ☐	16-20	6 ☐	21 or more

2 **Approximately how many sudden death cases where you had face-to-face contact with survivors have you had in the last 12 months?**

..... sudden death cases

3 **When did your most recent sudden death case occur?**

In the month of....., in the year.....

4 **Which of the following <u>best</u> describes the cause of death in this case?**

1 ☐	Sudden death from health-related problem (e.g., heart attack)	2 ☐	Sudden Infant Death Syndrome (SIDS) / "cot death"
3 ☐	Transport / road accident (e.g., car, plane, train, boat, tractor, bicycle or pedestrian)	4 ☐	Other accidental death (e.g., drowning, fall, poisoning, fire, electrocution, explosives, gunshot, natural disaster, workplace/industrial)
5 ☐	Confirmed or suspected homicide/manslaughter	6 ☐	Confirmed or suspected suicide
7 ☐	Sudden death from unknown causes	8 ☐	Other. Please specify: .....

The following 8 questions refer to the person who died (the deceased) in your most recent sudden death case.

5 **How old was the person who died?**

..... months old OR ..... years old

If you are unsure, please estimate the age range (e.g., 70 to 80 years old).....

6 **Please indicate the ethnicity of the deceased**

1 ☐	New Zealand European	2 ☐	New Zealand Maori
3 ☐	Pacific Island Nation	4 ☐	Asian
5 ☐	Indian	6 ☐	Unknown
7 ☐	Other. Please specify:		

7 **Did this case involve multiple deaths?** 1 ☐ No 2 ☐ Yes

8 **Did you witness the death occur?** 1 ☐ No 2 ☐ Yes

9 **Did you see the deceased's body?** 1 ☐ No 2 ☐ Yes

10 **To your knowledge, was the deceased's body grotesquely injured (e.g., burnt, crushed, mutilated, dismembered) or decomposed?** 1 ☐ No 2 ☐ Yes 3 ☐ Unsure

11 **Did you clean and/or prepare the body for viewing?** 1 ☐ No 2 ☐ Yes

12 **Did you handle the deceased's property as part of this case?** 1 ☐ No 2 ☐ Yes

The following 8 questions refer to the survivor(s) with whom you had face-to-face contact within 7 days after the death

13 **Approximately how many survivors did you have face-to-face contact with in relation to this sudden death?**

1 ☐ 1 survivor only

Please go straight to Question 14 and answer the remaining questions about THIS survivor.

2 ☐ 2 or more survivors
→ Please specify the number of survivors with whom you had face-to-face contact.....

Please read the statement in the box below.

It is important that you answer the remainder of the questionnaire in relation to just one survivor.

You should choose the person with whom you had the most face-to-face contact. If you had an equal amount of contact with more than one survivor, please answer the remainder of the questionnaire about one survivor who you worked with the most who had the biggest impact on you at the time.

14 **What were the circumstances of your involvement with this survivor in this most recent sudden death case? Please tick all that apply.**

1 ☐ Contact with survivor(s) at the scene of the death
2 ☐ Notified survivor(s) of the death
3 ☐ Present when survivor(s) viewed/identified the body
4 ☐ Interviewed survivor(s) for police investigation
5 ☐ Coroner's inquest
6 ☐ Court trial relating to the death
7 ☐ Other. Please specify:
.....

15 **Please tick the box that best describes the relationship between the deceased and survivor.**

1 ☐ Immediate family (spouse/partner, parent, child, sibling, including step family)
2 ☐ Other family (e.g., grandparent, grandchild, aunt, uncle, niece, nephew, cousin, in-law)
3 ☐ Friend
4 ☐ Neighbour
5 ☐ Work colleague
6 ☐ Other. Please specify:
.....

16 **What was the survivor's gender?** 1 ☐ Male 2 ☐ Female

17 **How old was the survivor?**

..... years old
If you are unsure, please estimate the age range (e.g., 70 to 80 years old).....

18 **Please indicate the ethnicity of the survivor**

1 ☐ New Zealand European 2 ☐ New Zealand Maori

3 ☐ Pacific Island Nation 4 ☐ Asian

5 ☐ Indian 6 ☐ Unknown

7 ☐ Other. Please specify:
.....

19 **Did you have another police officer with you when you interacted with the survivor?**

1 ☐ No 2 ☐ Yes 3 ☐ Sometimes

20 **Did you have a Victim Support volunteer with you when you interacted with the survivor?**

1 ☐ No 2 ☐ Yes 3 ☐ Sometimes

SECTION C: YOUR ACTIONS AFTER THE DEATH

Please think about your interactions with the survivor immediately after the death following your most recent sudden death case.

To what extent did you engage in the following actions <u>immediately after the death</u> with the survivor?
Please circle the number that best describes your answer, e.g., for the first item below, if you felt you didn't provide the survivor with any information about the death you would circle 0. If the item doesn't apply to your situation, please circle NA (not applicable).

0.....**1**.....**2**.....**3**.....**4**.....**NA**
not at all not really a little bit quite a lot very much not applicable

Did you...

Provide or obtain information about the circumstances of the death	0	1	2	3	4	NA
Provide information about grief/ how to cope with death	0	1	2	3	4	NA
Provide or obtain information about what formalities would happen next or what to do next (e.g., funeral preparations, post-mortem, police investigation, coroner's inquest)	0	1	2	3	4	NA
Ensure that follow-up support (e.g., counselling, support agencies) was available	0	1	2	3	4	NA

0	1	2	3	4	NA
not at all	not really	a little bit	quite a lot	very much	not applicable

Did you...

Let the survivor know how they can contact you for further information or help	0	1	2	3	4	NA
Hold back information that you thought may have hurt them	0	1	2	3	4	NA
Speak using words or terminology that were difficult to understand	0	1	2	3	4	NA
Respect their cultural, ethnic or religious customs following the death	0	1	2	3	4	NA
Encourage them to make their own decisions	0	1	2	3	4	NA
Respect their wishes about matters relating to the death	0	1	2	3	4	NA
Demonstrate helpfulness without being intrusive	0	1	2	3	4	NA
Take over tasks or make decisions that they would normally do	0	1	2	3	4	NA
Express condolences or sympathy at the loss	0	1	2	3	4	NA
Encourage the survivor to say goodbye to the person who died	0	1	2	3	4	NA
Do or say things to make the loss seem less significant	0	1	2	3	4	NA
Advise family or friends not to see the body of the person who died	0	1	2	3	4	NA
Remind the survivor that things could be worse	0	1	2	3	4	NA
Allow the survivor to express their emotions	0	1	2	3	4	NA
Try to prevent the survivor from talking about the death	0	1	2	3	4	NA
Tell the survivor that the death was for the best	0	1	2	3	4	NA
Do or say things to prevent the survivor from getting upset	0	1	2	3	4	NA
Show concern and caring	0	1	2	3	4	NA
Demonstrate what could be perceived as insensitivity or lack of understanding	0	1	2	3	4	NA
Spend time with the survivor in an unhurried manner	0	1	2	3	4	NA
Show your own emotions	0	1	2	3	4	NA
Listen to the survivor	0	1	2	3	4	NA

SECTION D: YOUR FEELINGS AND REACTIONS RELATING TO THE SUDDEN DEATH CASE

Please think of the reactions to the death you witnessed in the survivor during your contact with them. To what extent were you distressed by the following reactions from the survivor in relation to your most recent sudden death case?

Please circle the number for the answer that best describes your level of distress for each reaction below, e.g., in the first item below, if you felt you were very distressed by the survivor's abusiveness, you would circle number 3.

0.....**1**.....**2**.....**3**.....**4**

not at all OR not applicable — a little — moderately — very — extremely

I was distressed when the survivor showed...

Verbal and/or physical abuse directed at me	0	1	2	3	4
Anger, including violence towards others, or self-harm	0	1	2	3	4
Crying or screaming	0	1	2	3	4
Dissociation ("blanking out")	0	1	2	3	4
Shock or panic	0	1	2	3	4
No reaction at all	0	1	2	3	4
Denial or disbelief	0	1	2	3	4
Guilt	0	1	2	3	4
Withdrawal	0	1	2	3	4
Helplessness	0	1	2	3	4
A need to ask questions about the death or the deceased	0	1	2	3	4
A need to talk about the death or the deceased	0	1	2	3	4
Other(s). Please specify:	0	1	2	3	4

Now think about your own reactions DURING AND IMMEDIATELY AFTER the time of the person's death.

How true were the following statements around this time?

Please circle the number for the answer that best describes your distress for each reaction below.

0.....1.....2.....3.....4
not at all true slightly true somewhat true very true extremely true

I felt helpless to do more	0	1	2	3	4
I felt sadness and grief	0	1	2	3	4
I felt frustrated and angry I could not do more	0	1	2	3	4
I felt afraid for my own safety	0	1	2	3	4
I felt guilt that more was not done	0	1	2	3	4
I felt ashamed of my emotional reactions	0	1	2	3	4
I felt worried about the safety of others	0	1	2	3	4
I had the feeling I was about to lose control of my emotions	0	1	2	3	4
I had difficulty controlling my bowel or my bladder	0	1	2	3	4
I was horrified by what happened	0	1	2	3	4
I had physical reactions like sweating, shaking, and my heart pounding	0	1	2	3	4
I felt I might pass out	0	1	2	3	4
I thought I might die	0	1	2	3	4

Please think of your reactions to the SURVIVOR during and since the time of your involvement with them.

How true are the following statements?

Please circle the number for the answer that best describes how true each statement below is for you, e.g., in the first item below, if you feel it was very true that you it could have been you in the survivor's position, you would circle 3.

0	1	2	3	4
not at all true/unsure OR not applicable	slightly true	moderately true	very true	completely true

When I thought of the survivor, I couldn't help thinking "it could have been *me* in their position"	0	1	2	3	4
When I thought of the survivor, I couldn't help thinking "it could have been *one of my family members* in their position"	0	1	2	3	4
When I thought of the survivor, I couldn't help thinking "it could have been *one of my friends* in their position"	0	1	2	3	4
I could relate to the survivor	0	1	2	3	4
Knowing what the survivor went through reminded me of an experience in my own life	0	1	2	3	4
I assumed some of the behaviours or characteristics of the survivor	0	1	2	3	4
I felt that it should have been me suffering, not the survivor	0	1	2	3	4
I feared blurring the boundary between my life and my work with the survivor	0	1	2	3	4
I wanted to protect the survivor	0	1	2	3	4
I became personally involved in helping the survivor	0	1	2	3	4
I imagined being friends with the survivor	0	1	2	3	4

For the items below, please circle the number that best describes how you think and feel about <u>your most recent sudden death case and the survivor involved</u>.

1.....2.....3.....4.....5
rarely/never at times not sure often very often

I force myself to avoid certain thoughts or feelings that remind me of the difficulties of the survivor	1	2	3	4	5
I find myself avoiding certain activities or situations because they remind me of their problems	1	2	3	4	5
I have difficulty falling or staying asleep	1	2	3	4	5
I startle easily	1	2	3	4	5
I have flashbacks (vivid unwanted images or memories) related to their problems	1	2	3	4	5
I am frightened easily by things that the survivor said or did to me	1	2	3	4	5
I experience troubling dreams similar to their problems	1	2	3	4	5
I experience intrusive, unwanted thoughts about their problems	1	2	3	4	5
I am losing sleep over thoughts of their experiences	1	2	3	4	5
I have thought that I might have been negatively affected by their experience	1	2	3	4	5
I have felt "on edge" and distressed and this may be related to thoughts about their problem	1	2	3	4	5
I have wished that I could avoid dealing with the survivor	1	2	3	4	5
I have difficulty recalling specific aspects and details of their difficulties	1	2	3	4	5
I find myself losing interest in activities that used to bring me pleasure	1	2	3	4	5
I find it increasingly difficult to have warm and positive feelings for others	1	2	3	4	5
I find that I am less clear and optimistic about my future life than I once was	1	2	3	4	5
I have had some difficulty concentrating	1	2	3	4	5
I would feel threatened and vulnerable if I went through what the survivor went through	1	2	3	4	5

The statements below may describe how you have felt during the <u>past seven days, including today.</u>

Circle the appropriate number to describe how distressing you have found these things over this time.

	1 not at all	2 a little	3 quite a bit	4 extremely
Difficulty in speaking when you are excited	1	2	3	4
Trouble remembering things	1	2	3	4
Worried about sloppiness or carelessness	1	2	3	4
Blaming yourself for things	1	2	3	4
Pains in the lower part of your back	1	2	3	4
Feeling lonely	1	2	3	4
Feeling blue	1	2	3	4
Your feelings are being easily hurt	1	2	3	4
Feeling others do not understand you or are unsympathetic	1	2	3	4
Feeling that people are unfriendly or dislike you	1	2	3	4
Having to do things very slowly in order to be sure you are doing them right	1	2	3	4
Feeling inferior to others	1	2	3	4
Soreness of your muscles	1	2	3	4
Having to check and double check what you do	1	2	3	4
Hot or cold spells	1	2	3	4
Your mind going blank	1	2	3	4
Numbness or tingling in parts of your body	1	2	3	4
A lump in your throat	1	2	3	4
Trouble concentrating	1	2	3	4
Weakness in parts of your body	1	2	3	4
Heavy feelings in your arms and legs	1	2	3	4

SECTION D: POST-DEATH SUPPORT

How helpful were the following sources of support for you around the time of the sudden death?

Please circle the number that best describes how helpful you found each of the following.

0.....1.....2.....3.....4.....NA
not at all helpful slightly helpful moderately helpful quite helpful extremely helpful not applicable

Debriefing	0	1	2	3	4	NA
Counselling provided by Police	0	1	2	3	4	NA
Talking with colleagues	0	1	2	3	4	NA
Talking with family /friends	0	1	2	3	4	NA
Professional counselling that you arranged yourself	0	1	2	3	4	NA
Personal strategies	0	1	2	3	4	NA

The final questions (Section E) are continued on the following page

SECTION E: YOUR PERSONAL EXPERIENCES OF TRAUMA

Listed below are a few traumatic experiences, which may have happened to you at some stage in your life, either at work or otherwise.

Please tick the most appropriate answer for you.

1 Have you ever served in military combat?

1 ☐ No
2 ☐ Yes, in the last 12 months
3 ☐ Yes, more than 12 months ago

2 Has anyone ever taken something from you by force or threat of force, such as in a robbery, mugging or hold-up?

1 ☐ No
2 ☐ Yes, in the last 12 months
3 ☐ Yes, more than 12 months ago

3 Have you ever been assaulted, injured or had your life placed under threat by another person?

1 ☐ No
2 ☐ Yes, in the last 12 months
3 ☐ Yes, more than 12 months ago

4 Has anyone ever made you have sex or sexual contact by using force or threatening to harm you? This includes any type of unwanted sexual activity.

1 ☐ No
2 ☐ Yes, in the last 12 months
3 ☐ Yes, more than 12 months ago

5 Have you ever suffered injury or property damage because of fire?

1 ☐ No
2 ☐ Yes, in the last 12 months
3 ☐ Yes, more than 12 months ago

6 Have you ever suffered injury, evacuation, or property damage because of severe weather or either a natural or human-made disaster?

1 ☐ No
2 ☐ Yes, in the last 12 months
3 ☐ Yes, more than 12 months ago

7 **Has a police officer you knew well ever died because of an accident, homicide, or suicide?**

1 ☐ No
2 ☐ Yes, in the last 12 months
3 ☐ Yes, more than 12 months ago

8 **Apart from fellow police officers, has a close friend or family member ever died because of an accident, homicide, or suicide?**

1 ☐ No
2 ☐ Yes, in the last 12 months
3 ☐ Yes, more than 12 months ago

9 **Have you ever been in a motor vehicle accident serious enough to cause injury to one or more passengers?**

1 ☐ No
2 ☐ Yes, in the last 12 months
3 ☐ Yes, more than 12 months ago

10 **Have you ever been present at an incident in which a police officer was deliberately or accidentally killed?**

1 ☐ No
2 ☐ Yes, in the last 12 months
3 ☐ Yes, more than 12 months ago

11 **Have you ever been present at an incident in which a member of the public was killed or seriously injured by the police?**

1 ☐ No
2 ☐ Yes, in the last 12 months
3 ☐ Yes, more than 12 months ago

12 **Have you ever been involved in work with victims of multiple or otherwise particularly disturbing homicides (e.g., child or aged victims)?**

1 ☐ No
2 ☐ Yes, in the last 12 months
3 ☐ Yes, more than 12 months ago

13 **Have you ever worked at accidents in which there are multiple victims or severe mutilation of bodies?**

1 ☐ No
2 ☐ Yes, in the last 12 months
3 ☐ Yes, more than 12 months ago

14 **Have you ever been involved in a Disaster Victim Identification Process?**

1 ☐ No

2 ☐ Yes, in the last 12 months

3 ☐ Yes, more than 12 months ago

15 **Have you ever worked for a period of time in a work area that constantly included work that was distressing for you (such as child abuse cases or multiple incidents or domestic violence)?**

1 ☐ No

2 ☐ Yes, in the last 12 months

3 ☐ Yes, more than 12 months ago

16 **Have you ever been notified of the death of someone close to you from an official (e.g., police officer, medical personnel)?**

1 ☐ No

2 ☐ Yes, in the last 12 months

3 ☐ Yes, more than 12 months ago

17 **Have you ever viewed the body of someone you knew?**

1 ☐ No

2 ☐ Yes, in the last 12 months

3 ☐ Yes, more than 12 months ago

18 **Have you ever had some other shocking or distressing experience, something that has not been mentioned yet?**

1 ☐ No

2 ☐ Yes, in the last 12 months

3 ☐ Yes, more than 12 months ago

Please specify:

.....

19 **Which of the above events was the most traumatic for you personally? Please indicate by writing the number of the question below.**
(E.g., for robbery, the question number is 2)

The experience that has been most traumatic for me was mentioned in question number .....

Finally, please think about your CURRENT feelings about the experience that was most traumatic for you, as indicated in Question 19 above.

Please indicate the extent to which you agree with the following statements by circling the number that best describes how you feel now about the experience.

	0 not at all	1 slightly	2 moderately	3 quite a bit	4 completely
I have moved on and left this event in the past	0	1	2	3	4
Overall, this event feels resolved to me	0	1	2	3	4
I have come to terms with this experience	0	1	2	3	4
It's distressing for me to think about it	0	1	2	3	4

Thank you. Your help is much appreciated.

APPENDIX J

VICTIM SUPPORT INTRODUCTORY LETTER

Dear Victim Support volunteer

Victim Support is committed to meeting the needs of all victims of crime and crisis in New Zealand and supporting our volunteers who assist these victims. A large proportion of our work involves supporting people affected by a sudden death, including from homicide, suicide, accidental death and sudden infant death.

We are fortunate to have the opportunity of participating in a nationwide study examining the psychological impact on victims, police officers and our volunteer support workers in the immediate aftermath of a sudden death. This research has been carefully planned by Massey University, in consultation with bereaved families, grief and trauma experts, senior Maori representatives, New Zealand Police and Victim Support National Office. It will involve nearly 1000 police officers, Victim Support volunteers and bereaved victims from all over the country. The study will provide information on how Victim Support can best support both its workers and victims, in order to enhance training, service delivery and debriefing/supervision.

Your name is one of 250 generated randomly from those volunteers recorded on our database as having attended a callout for a sudden death, homicide, suicide or accidental death between July 1, 2005 and July 31, 2006. Unless you inform us otherwise, your name and address will be given to the researcher who will send you the questionnaire and information sheet, followed by a reminder postcard and finally a summary of findings at the completion of the study, at which point your contact details will be destroyed. In the meantime, your details will be kept in a password-secure file, accessible only to the researcher. We would greatly appreciate your consideration in participating in this important study. Participation is voluntary and completely anonymous. Your questionnaire will not be matched with your name so you will not be personally identifiable, and Victim Support will not be shown your completed questionnaire. Participation involves completing a tick-box questionnaire, which mostly asks about your feelings during and after face-to-face interactions with close family and friends of someone who died suddenly.

You are welcome to look through the questionnaire and accompanying information before deciding whether you wish to complete it or not. However, if you do *not* wish to be sent a questionnaire and information sheet, please contact Michelle at National Office by 28 October 2006 on (04) 474 8862 or email michelle@victimsupport.org.nz.

Yours sincerely

Marie Knight
Chief Executive

APPENDIX K

VICTIM SUPPORT INFORMATION SHEET

DEALING WITH SUDDEN DEATH AS A VICTIM SUPPORT WORKER

Information Sheet

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School of Psychology
Massey University
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Hello, kia ora,
Victim Support National Office has already kindly informed you about the opportunity to participate in this study. My name is Petrina Hargrave and I am undertaking research into the effects of sudden death on New Zealanders for my doctoral thesis in psychology at Massey University. Through my support work with bereaved people, I have located a need for more research into the immediate needs of the suddenly bereaved and those who work with them.

What is the purpose of this research?
As a Victim Support worker, you may interact with bereaved survivors when you work on a sudden death case (e.g., homicide, suicide, accidental death, sudden infant death, sudden death due to medical condition). Research shows that the immediate aftermath of a sudden death is an especially difficult period for the bereaved family and friends and the people who help them. This study will investigate what aspects of dealing with a sudden death are most distressing for Victim Support volunteers, New Zealand Police officers and bereaved survivors. The aim is to identify how Victim Support and Police can best support the bereaved so that distress is minimised for themselves and those they help. This study has been approved by Victim Support National Office and New Zealand Police.

Questionnaires are being sent to:

- A random sample of 400 survivors nationwide who had contact with Victim Support in relation to a sudden death in 2004. Of these survivors, 100 have been selected randomly from those recorded as Maori to ensure that Maori are well-represented in this study;
- A random sample of 250 police officers and 250 Victim Support volunteers nationwide who have been identified as having attended a sudden death between July 1, 2005 and July 31, 2006.

Who is eligible to participate in this study?
You have already been identified from Victim Support records has having worked on at least one case involving a death that occurred suddenly (e.g., a homicide, accident, suicide, sudden infant death, heart attack, or sudden death from a medical condition or natural causes) between July 1, 2005 and July 31, 2006. To be eligible for participation you must be able to answer YES to the next two questions:

1) In one of these cases, did you have face-to-face contact with one or more persons who had a close relationship to the deceased? (E.g., family member, friend, workmate, neighbour)
2) Did this contact occur within seven days of the person(s) learning of the death?

Please note that if you have attended a case that meets the above criteria more recently than July 2006, you will be directed to answer questions about this most recent death if you complete the questionnaire.

What happens if you agree to take part?
If you consent to take part in this study, you will complete the enclosed questionnaire which should take no longer than 20 minutes.

What's in the questionnaire?
Mostly you will be asked to simply circle the most appropriate response for questions including:

- Your demographic characteristics (e.g. gender, age, education). Please note: These questions are being asked for statistical purposes only.
- Your experience with Victim Support (e.g. your length of service)
- Your most recent experience in dealing with sudden death survivors as a Victim Support worker and your responses to this (e.g., circumstances of death, how you assisted the survivors, distressing aspects of working with the survivors)
- Your personal experience of traumatic events (e.g. whether you have ever been robbed or abused)

We respect that some questions may cause you concern or distress. We encourage you to utilise the expertise of your Victim Support Service Co-ordinator and your supervisor if appropriate. We have also included a list of other support options available to you at the end of this section.

What happens to the information you provide & how do we ensure your anonymity?

- This is an anonymous survey, so we have no way of identifying you when you return your questionnaire. Your completed questionnaire will be given a code and your responses will be entered into a computer for statistical analysis using that code. The purpose of the data analysis is to make comparisons between groups; no analyses between individuals will be made. To ensure confidentiality of data during the course of the study, a password will be required to access this data on computer.
- The researcher and her two supervisors are the ONLY people who will have access to the completed questionnaires and the data under any circumstances.
- The overall findings from the completed questionnaires will form the basis for Petrina Hargrave's PhD thesis.
- These findings may be submitted for publication in a scientific journal and presented at relevant conferences and workshops.
- Your coded data will be kept for at least five years after publication in a locked cabinet in Professor Janet Leathem's office.
- We will send you a summary of the overall findings of this study at the completion of the project (expected early 2008) to the same address to which this questionnaire has been sent, unless you inform the researcher of a change of address.
- Our record of your name and contact details will be destroyed after we have sent you the summary.
- ***A further note on your anonymity:*** *Because we can't tell who has returned their questionnaire, please be aware that you will still be sent a reminder postcard and a summary of findings even if you decide not to participate. If you do not wish to receive either of these, please ring 0800 000 363.*

What do I do now?

- Should you wish to participate, please complete the enclosed questionnaire and return it in the postage-paid envelope enclosed *as soon as possible.*

Your rights

- Completion and return of the questionnaire implies consent. You have the right to decline to answer any particular question.

There is a dedicated free phone line set up for the first 6 months of this study (till 5 April 2007).
You can phone 0800 000 363 any time to speak to Petrina Hargrave about any questions regarding the study or assistance in seeking specialist help for any distress that may arise from completing the questionnaire.

This project has been reviewed and approved by the Massey University Human Ethics Committee, Wellington Application 05/60. If you have any concerns about the ethics of this research, please contact Dr Karl Pajo, Chair, Massey University Campus Human Ethics Committee: WGTN telephone 04 801 5799, ext 6929, email humanethicswn@massey.ac.nz

Thank you for your time

SUPPORT SERVICES AND SELF-CARE

You may wish to talk to someone after reflecting on your experiences for this questionnaire...

Acknowledging our own traumatic experiences and our responses to these and to the experiences of others is an important part of being a Victim Support volunteer. Sometimes this can be a painful experience but it does not have to be one you face alone.

The following self-care tips may help:

Physical self-care

- Eat regular healthy meals
- Exercise – walk, run, dance, swim, play sports or do some other physical activity that you enjoy
- Catch up on sleep
- Plan holidays or short breaks

Psychological self-care

- Make time for self-reflection
- Write a journal
- Do something at which you are not an expert or in charge
- Say no to extra responsibilities sometimes

Emotional self-care

- Spend time with others whose company you enjoy
- Give yourself affirmations, praise yourself
- Identify comforting activities, objects people and places and seek them out
- Allow yourself to cry
- Find things that make you laugh

Spiritual self-care

- Meditate
- Find a spiritual or religious connection or community
- Spend time with nature

Excerpted from Saakvitine, K.W. & Pearlman, L.A. (Eds.). (1996). *Transforming the pain: A workbook on vicarious traumatization.* New York: Norton.

You may also wish to discuss your feelings with the following experienced people:

- Your Victim Support Service Co-ordinator
- Your Victim Support supervisor

Both of these can put you in touch with individual counsellors to meet your needs, however, if you wish to speak to someone from a specialist national support service, the options on the following page may help:

Relationship Services
Relationship services, with information and resources available on relationship issues
http://www.relate.org.nz/

Barnardos
Support and information for families
http://www.barnardos.org.nz
Ph (04) 385 7560

Carers NZ
Carers NZ info and support
http://www.carers.org.nz

Skylight
For children and young people (and their carers) dealing with loss and grief
http://www.skylight.org.nz
Ph 0800 299 100

New Zealand Cot Death Association/SIDS (Sudden Infant Death Syndrome)
Ph 0800 164 455

SANDS (Still birth and new born death support group)
Ph 0800 570 033

Miscarriage Support
http://www.miscarriagesupport.org.nz
Ph (09) 378 4060

Presbyterian Support
For counselling
http://www.psc.org.nz
Ph (04) 384 4629

Lifeline
24-hour counselling
Ph 0800 543 354

Samaritans
24-hour counselling
Ph 0800 726 666

APPENDIX L

Massey University

SUDDEN DEATH QUESTIONNAIRE FOR VICTIM SUPPORT WORKERS

SECTION A: BACKGROUND INFORMATION

First we would like some general background information about you. Please circle the number for the answer that is best for you or give details in the spaces provided. For example, in Question 1, if you are male you would tick the box as follows: 1 ☑ Male

Office use only

1 What is your gender? 1 ☐ Male 2 ☐ Female

2 How old were you at your last birthday? .....

3 What ethnicity do you identify with most?

1 ☐ New Zealand European

2 ☐ New Zealand Maori
Ko wai koe?
.....
.....

3 ☐ Pacific Island Nation

4 ☐ Chinese

5 ☐ Indian

6 ☐ Other. Please specify:
.....

4 What is your current marital status?

1 ☐ Single

2 ☐ In relationship but not living together

3 ☐ Living with partner/married/ civil union

4 ☐ Separated or divorced

5 ☐ Widowed

5 What is your religion/faith?

1 ☐ No religion or spiritual beliefs

2 ☐ Personal spiritual beliefs

3 ☐ Christian

4 ☐ Muslim

5 ☐ Jewish

6 ☐ Buddhist

7 ☐ Hindu

8 ☐ Other. Please specify:
.....

6 What is your highest educational qualification or equivalent qualification?

1 ☐	No school qualification	2 ☐	School Certificate / NCEA Level 1
3 ☐	Sixth Form Certificate / NCEA Level 2	4 ☐	University Entrance /Bursary/ NCEA Level 3
5 ☐	Trade/Professional certificate/diploma/NCEA Level 4	6 ☐	Bachelor degree
7 ☐	Postgraduate degree or diploma		

7 How long have you been a Victim Support worker?

..... years OR ..... months

8 How many hours <u>per month</u> are you typically rostered? ..... hours

9 What is your MAIN current employment status?

1 ☐	Employed full-time	2 ☐	Employed part-time
3 ☐	Student	4 ☐	Homemaker
5 ☐	Retired	6 ☐	Unemployed / beneficiary

10 What is your annual income?

1 ☐	$0- $15,000	2 ☐	$15,001-$30,000
3 ☐	$30,001-$45,000	4 ☐	$45,001-$60,000
5 ☐	$60,001-$75,000	6 ☐	$75,001 or more

11 Do you live in a:

1 ☐	City	2 ☐	Provincial town or rural region

SECTION B: YOUR MOST RECENT SUDDEN DEATH CASE

The rest of questionnaire relates to the most recent sudden death case you have worked on where you have interacted with survivors within 7 days of the survivors learning of the death. By sudden death we mean *homicide, suicide, accidental death, sudden infant death or any death that appeared violent, unnatural, unexpected, or suspicious.* By survivors, we mean the *next of kin, family, friends, neighbours and colleagues* of the person(s) who died.

If you were involved in a case resulting in multiple deaths, this is likely to impact on how you felt at the time and how you feel now. It also may cause confusion when you answer some of the questions. To make it easier for you, we will only ask you about one death. You may nominate the death which you would most like to answer questions about but it must be a sudden death for which you had face-to-face contact with survivors.

Please tick the box that is best for you or write your answer in the space provided. Remember to answer in relation to one sudden death only.

1 Approximately how many sudden death cases where you had face-to-face contact with survivors have you had since you have been a Victim Support worker?

1 ☐	This was my first	2 ☐	2-5
3 ☐	6-10	4 ☐	11-15
5 ☐	16-20	6 ☐	21 or more

2 Approximately how many sudden death cases where you had face-to-face contact with survivors have you had in the last 12 months?

..... sudden death cases

3 When did your most recent sudden death occur?

In the month of.....in the year.....

4 Which of the following best describes the cause of death in this case?

1 ☐	Sudden death from health-related problem (e.g., heart attack)	2 ☐	Sudden Infant Death Syndrome (SIDS) / "cot death"
3 ☐	Transport / road accident (e.g., car, plane, train, boat, tractor, bicycle or pedestrian)	4 ☐	Other accidental death (e.g., drowning, fall, poisoning, fire, electrocution, explosives, gunshot, natural disaster, workplace/industrial)
5 ☐	Confirmed or suspected homicide/manslaughter	6 ☐	Confirmed or suspected suicide
7 ☐	Sudden death from unknown causes	8 ☐	Other. Please specify: _____

The following 6 questions refer to the person who died (the deceased) in your most recent sudden death case.

5 How old was the person who died?

..... months old OR ..... years old
If you are unsure, please estimate the age range (e.g., 70 to 80 years old).....

6 Please indicate the ethnicity of the deceased

1 ☐ New Zealand European
2 ☐ New Zealand Maori
3 ☐ Pacific Island Nation
4 ☐ Asian
5 ☐ Indian
6 ☐ Unknown
7 ☐ Other. Please specify: .....

7 Did this case involve multiple deaths? 1 ☐ No 2 ☐ Yes

8 Did you witness the death occur? 1 ☐ No 2 ☐ Yes

9 Did you see the deceased's body? 1 ☐ No 2 ☐ Yes

10 To your knowledge, was the deceased's body grotesquely injured (e.g., burnt, crushed, mutilated, dismembered) or decomposed? 1 ☐ No 2 ☐ Yes 3 ☐ Unsure

The following 7 questions refer to the survivor(s) with whom <u>you</u> had face-to-face contact within 7 days after the death

11 Approximately how many survivors did you have face-to-face contact with in relation to this sudden death?

1 ☐ 1 survivor only

Please go straight to Question 12 and answer the remaining questions about THIS survivor.

2 ☐ 2 or more survivors
→ Please specify the number of survivors with whom you had face-to-face contact.....

Please read the statement in the box below.

It is important that you answer the remainder of the questionnaire in relation to just <u>one</u> survivor.

You should choose the person with whom you had the most face-to-face contact. If you had an equal amount of contact with more than one survivor, please answer the remainder of the questionnaire about one survivor who you worked with the most who had the biggest impact on you at the time.

12 What were the circumstances of your involvement with this survivor in this most recent sudden death case? Please tick all that apply.

1 ☐	Contact at the scene of the death	2 ☐	Present when the survivor was notified of the death
3 ☐	Present when the survivor viewed/identified the body	4 ☐	Follow-up support for the survivor
5 ☐	Coroner's inquest	6 ☐	Court trial or parole hearing relating to the death
7 ☐	Victim Impact Statement	8 ☐	Other. Please specify: .....

13 Please tick the number that best describes the relationship between the deceased and survivor.

1 ☐	Immediate family (spouse/partner, parent, child, sibling, including step family)	2 ☐	Other family (e.g., grandparent, grandchild, aunt, uncle, niece, nephew, cousin, in-law)
3 ☐	Friend	4 ☐	Neighbour
5 ☐	Work colleague	6 ☐	Other. Please specify: .....

14 What was the survivor's gender? 1 ☐ Male 2 ☐ Female

15 How old was the survivor?

..... years old
If you are unsure, please estimate the age range (e.g., 70 to 80 years old).....

16 Please indicate the ethnicity of the survivor.

1 ☐	New Zealand European	2 ☐	New Zealand Maori
3 ☐	Pacific Island Nation	4 ☐	Asian
5 ☐	Indian	6 ☐	Unknown
7 ☐	Other. Please specify:		

17 Did you have another Victim Support worker with you when you interacted with the survivor?

1 ☐ No 2 ☐ Yes 3 ☐ Sometimes

18 Did you have a police officer with you when you interacted with the survivor?

1 ☐ No 2 ☐ Yes 3 ☐ Sometimes

SECTION C: YOUR ACTIONS AFTER THE DEATH

Please think about your interactions with the survivor immediately after the death following your most recent sudden death case.

To what extent did you engage in the following actions immediately after the death the death with the survivor?

Please circle the number that best describes your answer, e.g., for the first item below, if you felt you didn't provide the survivor with any information about the death you would circle 0. If the item doesn't apply to your situation, please circle NA (not applicable).

0.....**1**.....**2**.....**3**.....**4**.....**NA**
not at all not really a little bit quite a lot very much not applicable

Did you...

Provide or obtain information about the circumstances of the death	0	1	2	3	4	NA
Provide information about grief/ how to cope with death	0	1	2	3	4	NA
Provide or obtain information about what formalities would happen next or what to do next (e.g., funeral preparations, post-mortem, police investigation, coroner's inquest)	0	1	2	3	4	NA
Ensure that follow-up support (e.g., counselling, support agencies) was available	0	1	2	3	4	NA
Let the survivor know how they can contact you for further information or help	0	1	2	3	4	NA
Hold back information that you thought may have hurt them	0	1	2	3	4	NA
Speak using words or terminology that were difficult to understand	0	1	2	3	4	NA
Respect their cultural, ethnic or religious customs following the death	0	1	2	3	4	NA
Encourage them to make their own decisions	0	1	2	3	4	NA
Respect their wishes about matters relating to the death	0	1	2	3	4	NA
Demonstrate helpfulness without being intrusive	0	1	2	3	4	NA
Take over tasks or make decisions that they would normally do	0	1	2	3	4	NA
Express condolences or sympathy at the loss	0	1	2	3	4	NA
Encourage the survivor to say goodbye to the person who died	0	1	2	3	4	NA
Do or say things to make the loss seem less significant	0	1	2	3	4	NA
Advise family or friends not to see the body of the person who died	0	1	2	3	4	NA
Remind the survivor that things could be worse	0	1	2	3	4	NA

0.....**1**.....**2**.....**3**.....**4**.....**NA**
not at all not really a little bit quite a lot very much not applicable

Did you...

Allow the survivor to express their emotions	0	1	2	3	4	NA
Try to prevent the survivor from talking about the death	0	1	2	3	4	NA
Tell the survivor that the death was for the best	0	1	2	3	4	NA
Do or say things to prevent the survivor from getting upset	0	1	2	3	4	NA
Show concern and caring	0	1	2	3	4	NA
Demonstrate what could be perceived as insensitivity or lack of understanding	0	1	2	3	4	NA
Spend time with the survivor in an unhurried manner	0	1	2	3	4	NA
Show your own emotions	0	1	2	3	4	NA
Listen to the survivor	0	1	2	3	4	NA

SECTION D: YOUR FEELINGS AND REACTIONS RELATING TO THE SUDDEN DEATH CASE

Please think of the reactions to the death you witnessed in the survivor during your contact with them.

To what extent were you distressed by the following reactions from the survivor in relation to your most recent sudden death case?

Please circle the number for the answer that best describes your distress for each reaction below, e.g., in the first item below, if you felt you were very distressed by the survivor's abusiveness, you would circle number 3.

0.....1.....2.....3.....4
not at all OR not applicable a little moderately very extremely

I was distressed when the survivor showed...

Verbal and/or physical abuse directed at me	0	1	2	3	4
Anger, including violence towards others, or self-harm	0	1	2	3	4
Crying or screaming	0	1	2	3	4

I was distressed when the survivor showed…

Dissociation ("blanking out")	0	1	2	3	4
Shock or panic	0	1	2	3	4
No reaction at all	0	1	2	3	4
Denial or disbelief	0	1	2	3	4
Guilt	0	1	2	3	4
Withdrawal	0	1	2	3	4
Helplessness	0	1	2	3	4
A need to ask questions about the death or the deceased	0	1	2	3	4
A need to talk about the death or the deceased	0	1	2	3	4
Other(s). Please specify:	0	1	2	3	4

Now think about your own reactions DURING AND IMMEDIATELY AFTER the time of the person's death.

How true were the following statements around this time?

Please circle the number for the answer that best describes your distress for each reaction below.

0.....1.....2.....3.....4
not at all true slightly true somewhat true very true extremely true

I felt helpless to do more	0	1	2	3	4
I felt sadness and grief	0	1	2	3	4
I felt frustrated and angry I could not do more	0	1	2	3	4
I felt afraid for my own safety	0	1	2	3	4
I felt guilt that more was not done	0	1	2	3	4
I felt ashamed of my emotional reactions	0	1	2	3	4
I felt worried about the safety of others	0	1	2	3	4
I had the feeling I was about to lose control of my emotions	0	1	2	3	4
I had difficulty controlling my bowel or my bladder	0	1	2	3	4

I was horrified by what happened	0	1	2	3	4
I had physical reactions like sweating, shaking, and my heart pounding	0	1	2	3	4
I felt I might pass out	0	1	2	3	4
I thought I might die	0	1	2	3	4

Please think of your reactions to the SURVIVOR during and since the time of your involvement with them.

How true are the following statements?

Please circle the number for the answer that best describes how true each statement below is for you, e.g., in the first item below, if you feel it was very true that you it could have been you in the survivor's position, you would circle 3.

0.....1.....2.....3.....4

not at all true/unsure OR not applicable — slightly true — moderately true — very true — completely true

When I thought of the survivor, I couldn't help thinking "it could have been *me* in their position"	0	1	2	3	4
When I thought of the survivor, I couldn't help thinking "it could have been *one of my family members* in their position"	0	1	2	3	4
When I thought of the survivor, I couldn't help thinking "it could have been *one of my friends* in their position"	0	1	2	3	4
I could relate to the survivor	0	1	2	3	4
Knowing what the survivor went through reminded me of an experience in my own life	0	1	2	3	4
I assumed some of the behaviours or characteristics of the survivor	0	1	2	3	4
I felt that it should have been me suffering, not the survivor	0	1	2	3	4
I feared blurring the boundary between my life and my work with the survivor	0	1	2	3	4
I wanted to protect the survivor	0	1	2	3	4
I became personally involved in helping the survivor	0	1	2	3	4
I imagined being friends with the survivor	0	1	2	3	4

For the items below, please circle the number that best describes how you think and feel about <u>your most recent sudden death case and the survivor involved</u>.

1.....2.....3.....4.....5
rarely/never at times not sure often very often

I force myself to avoid certain thoughts or feelings that remind me of the difficulties of the survivor	1	2	3	4	5
I find myself avoiding certain activities or situations because they remind me of their problems	1	2	3	4	5
I have difficulty falling or staying asleep	1	2	3	4	5
I startle easily	1	2	3	4	5
I have flashbacks (vivid unwanted images or memories) related to their problems	1	2	3	4	5
I am frightened easily by things that the survivor said or did to me	1	2	3	4	5
I experience troubling dreams similar to their problems	1	2	3	4	5
I experience intrusive, unwanted thoughts about their problems	1	2	3	4	5
I am losing sleep over thoughts of their experiences	1	2	3	4	5
I have thought that I might have been negatively affected by their experience	1	2	3	4	5
I have felt "on edge" and distressed and this may be related to thoughts about their problem	1	2	3	4	5
I have wished that I could avoid dealing with the survivor	1	2	3	4	5
I have difficulty recalling specific aspects and details of their difficulties	1	2	3	4	5
I find myself losing interest in activities that used to bring me pleasure	1	2	3	4	5
I find it increasingly difficult to have warm and positive feelings for others	1	2	3	4	5
I find that I am less clear and optimistic about my future life than I once was	1	2	3	4	5
I have had some difficulty concentrating	1	2	3	4	5
I would feel threatened and vulnerable if I went through what the survivor went through	1	2	3	4	5

The statements below may describe how you have felt during the <u>past seven days, including today.</u>
Circle the appropriate number to describe how distressing you have found these things over this time.

1.....2.....3.....4
not at all a little quite a bit extremely

Difficulty in speaking when you are excited	1	2	3	4
Trouble remembering things	1	2	3	4
Worried about sloppiness or carelessness	1	2	3	4
Blaming yourself for things	1	2	3	4
Pains in the lower part of your back	1	2	3	4
Feeling lonely	1	2	3	4
Feeling blue	1	2	3	4
Your feelings are being easily hurt	1	2	3	4
Feeling others do not understand you or are unsympathetic	1	2	3	4
Feeling that people are unfriendly or dislike you	1	2	3	4
Having to do things very slowly in order to be sure you are doing them right	1	2	3	4
Feeling inferior to others	1	2	3	4
Soreness of your muscles	1	2	3	4
Having to check and double check what you do	1	2	3	4
Hot or cold spells	1	2	3	4
Your mind going blank	1	2	3	4
Numbness or tingling in parts of your body	1	2	3	4
A lump in your throat	1	2	3	4
Trouble concentrating	1	2	3	4
Weakness in parts of your body	1	2	3	4
Heavy feelings in your arms and legs	1	2	3	4

SECTION D: POST-DEATH SUPPORT

How helpful were the following sources of support for you around the time of the sudden death?

Please circle the number that best describes how helpful you found each of the following.

0.....1.....2.....3.....4.....NA
not at all helpful slightly helpful moderately helpful quite helpful extremely helpful not applicable

Debriefing	0	1	2	3	4	NA
Line Supervision (provided as part of your regular Victim Support meetings)	0	1	2	3	4	NA
Clinical Supervision (provided outside Victim Support by referral)	0	1	2	3	4	NA
Talking with colleagues	0	1	2	3	4	NA
Talking with family /friends	0	1	2	3	4	NA
Professional counselling that you arranged yourself	0	1	2	3	4	NA
Personal strategies	0	1	2	3	4	NA

The final questions (Section E) are continued on the following page

SECTION E: YOUR PERSONAL EXPERIENCES OF TRAUMA

Listed below are a few traumatic experiences, which may have happened to you at some stage in your life, either at work or otherwise.

Please tick the most appropriate answer for you.

1 Have you ever served in military combat?

1 ☐ No
2 ☐ Yes, in the last 12 months
3 ☐ Yes, more than 12 months ago

2 Has anyone ever taken something from you by force or threat of force, such as in a robbery, mugging or hold-up?

1 ☐ No
2 ☐ Yes, in the last 12 months
3 ☐ Yes, more than 12 months ago

3 Have you ever been assaulted, injured or had your life placed under threat by another person?

1 ☐ No
2 ☐ Yes, in the last 12 months
3 ☐ Yes, more than 12 months ago

4 Has anyone ever made you have sex or sexual contact by using force or threatening to harm you? This includes any type of unwanted sexual activity.

1 ☐ No
2 ☐ Yes, in the last 12 months
3 ☐ Yes, more than 12 months ago

5 Have you ever suffered injury or property damage because of fire?

1 ☐ No
2 ☐ Yes, in the last 12 months
3 ☐ Yes, more than 12 months ago

6 Have you ever suffered injury, evacuation, or property damage because of severe weather or either a natural or human-made disaster?

1 ☐ No
2 ☐ Yes, in the last 12 months
3 ☐ Yes, more than 12 months ago

7 **Has a close friend or family member ever died because of an accident, homicide, or suicide?**

1 ☐ No

2 ☐ Yes, in the last 12 months

3 ☐ Yes, more than 12 months ago

8 **Have you ever been in a motor vehicle accident serious enough to cause injury to one or more passengers?**

1 ☐ No

2 ☐ Yes, in the last 12 months

3 ☐ Yes, more than 12 months ago

9 **Have you ever been notified of the death of someone close to you from an official (e.g., police officer, medical personnel)?**

1 ☐ No

2 ☐ Yes, in the last 12 months

3 ☐ Yes, more than 12 months ago

10 **Have you ever viewed the body of someone you knew?**

1 ☐ No

2 ☐ Yes, in the last 12 months

3 ☐ Yes, more than 12 months ago

11 **Have you ever had some other shocking or distressing experience, something that has not been mentioned yet?**

1 ☐ No

2 ☐ Yes, in the last 12 months

3 ☐ Yes, more than 12 months ago

Please specify:.....

12 **Which of the above events was the most traumatic for you personally? Please indicate by writing the number of the question below.**
(E.g., for robbery, the question number is 2)

The experience that has been most traumatic for me was mentioned in question number.....

Finally, please think about your CURRENT feelings about the experience that was most traumatic for you, as indicated in Question 12 in the last section.

Please indicate the extent to which you agree with the following statements by circling the number that best describes how you feel now about the experience.

0.....1.....2.....3.....4
not at all slightly moderately quite a bit completely

I have moved on and left this event in the past	0	1	2	3	4
Overall, this event feels resolved to me	0	1	2	3	4
I have come to terms with this experience	0	1	2	3	4
It's distressing for me to think about it	0	1	2	3	4

Thank you. Your help is much appreciated.