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**TRAUMA IN THE LINE OF DUTY:
AN EVALUATION OF THE USE OF DEBRIEFING IN THE
NEW ZEALAND POLICE**

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NICOLA M. ADDIS

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Abstract

The effects of traumatic exposure on police officers are of increasing concern to the New Zealand Police. Effects can be of a physical, behavioural, or psychological nature, and in some circumstances, Posttraumatic stress disorder (PTSD) may develop. In March 1992, the New Zealand Police Trauma Policy was introduced to provide formalised debriefing to help reduce the development of traumatic stress symptoms. However, the effectiveness of debriefing in the mitigation of traumatic stress symptoms is a matter of contention. The primary aim of the present study was to evaluate the effectiveness of the New Zealand Police Trauma Policy in the mitigation of traumatic stress symptoms, including physical and psychological symptoms, and PTSD. Sixty-eight police officers, and their partners, involved in the deliberate slaying of a police officer were surveyed by questionnaire, approximately five years after the event. The results of regression analyses showed that debriefing was positively related to PTSD symptoms, and had no statistically significant influence on physical or psychological outcomes. These results support the findings of other controlled studies that suggest debriefing has no beneficial effect on mitigating symptoms of PTSD, and substantiate suggestions that debriefing may instead exacerbate symptoms. In addition, 78 % of the sample did not receive debriefing, despite its mandatory status for such events. It is concluded that the efficacy of debriefing is doubtful, and further evaluation research is needed.

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“Life’s hard tasks are never sent for us to give up with. They are intended to awaken strengths, skills and courage in learning how to master them.”

Peter Maddison

Table of Contents

Abstract	i
Acknowledgements	ii
List of Tables	v
List of Appendices	vi
The Policeman's Prayer	vii
<u>Introduction</u>	1
Traumatic Events	1
Traumatic Stress	2
Post-traumatic Stress Disorder	7
Post-traumatic Stress Intervention	10
Other Factors that can Influence Traumatic Stress Reactions	17
The Present Study	22
<u>Method</u>	24
Participants	24
The Measures	25
Procedure	30
The Slaying of a Police officer in the Course of Duty	32
<u>Results</u>	34
Analyses	34
Descriptive Findings	34
Preliminary Data Analysis	40
Research Question Analysis	41
Post-hoc Analysis	46

Discussion 50

 Summary of the Results 50

 Limitations of the Present Study 56

 Future Research 57

 Conclusion 61

References 62

List of Tables

<u>Table 1</u>	Trauma Policy Referrals	11
<u>Table 2</u>	Respondent Categories	24
<u>Table 3</u>	Summary of Gender, Age, Marital Status and Education	35
<u>Table 4</u>	Summary of Police Status and Length of Service	36
<u>Table 5</u>	Means, Standard Deviations and Range for IES-R, GHQ-12 and PILL	38
<u>Table 6</u>	Means, Standard Deviations and Range for Control Variables	39
<u>Table 7</u>	Simple Pearsons r Correlations Between IES-R, GHQ-12, PILL And Control Variables	42
<u>Table 8</u>	Hierarchical Multiple Regression Analysis of IES Scores on Other Trauma, Respondent Status and Debriefing	43
<u>Table 9</u>	Hierarchical Multiple Regression Analysis of PILL scores on Social Support, Other Trauma and Debriefing	45
<u>Table 10</u>	Hierarchical Multiple Regression Analysis of IES Scores on Impact, Other Trauma, Respondent Status and Debriefing	46
<u>Table 11</u>	Hierarchical Multiple Regression Analysis of PILL scores on Impact, Social Support, Other Trauma and Debriefing	48

List of Appendices

<u>Appendix A</u>	Diagnostic Criteria for Post-traumatic Stress Disorder (American Psychiatric Association, 2000)	82
<u>Appendix B</u>	The New Zealand Police Trauma Policy	86
<u>Appendix C</u>	An Evaluation of the New Zealand Police Trauma Policy: Questionnaire	114
<u>Appendix D</u>	Participant Information Sheet	128
<u>Appendix E</u>	Participant Follow-up Letter	132

A Policeman's Prayer

It is understood that among the effects of the late Constable P. C. Tulloch (1906 – 1941), there was found the following "Policeman's Prayer". That Constable Tulloch lived up to it is evidenced by the manner of his passing. He lost his life in the execution of his duty.

Give me the unfailing courage at all times and under all conditions. Let me look into the face of death with unblinking eyes and with no sense of fear. Teach me to realise that there are prowling human wolves ever ready to devour the innocent, that there are depraved creatures cast in comely human mould to who murder is but an incident, and crime in all its hideous phases only an occupation. Grant that I may live my life simply and keep my mind clean.

Let me acquire superlative the art of self-defence against the cunning wiles of mine own and the people's enemies. Steel me against the machinations of those who would corrupt me. May I never disgrace my uniform or think too lightly of those who, by long service and faithfulness to duty have earned the right to rank above me. Let me possess the virtues of the soldier on the battlefield. Preserve me from all personal vanity and save me from all pettiness in my dealings with those less fortunately placed in life.

Aid me in understanding that my job is a truly noble one; that it involves self-sacrifice, the maintenance of a robust body and a cool head, and that, first and last; I must be a man against men. Help me to be lightening quick in determining the right thing to do in grave emergencies. Help me to cultivate a warm heart and a ready hand for the needy and weak. May I be greatly feared by law-breakers and greatly loved by my friends.

Teach me to bear myself in storm or sunshine, in congenial or distasteful locations, always as the blue-cad symbol of civilisation's law, without which there would be little happiness on this earth and no reason whatsoever for human progress.

Traumatic Events

The possibility of experiencing a traumatic event is a part of daily life. Traumatic events can occur at any time, at any place, and almost anyone can be a victim of trauma. However, some individuals are at higher risk by reason of their career choice. For example, members of the emergency services professions, such as law enforcement, face repeated exposure to traumatic events. As a survey by Buchanan (1994) has indicated, 46 % of New Zealand police officers sampled had been exposed to trauma, compared to a community average of 7 % Norris (1990).

Nonetheless, what can be considered a 'traumatic event' is a matter of contention. The American Psychological Association (APA) defines a traumatic event in relation to characteristics of the event itself. To be classified as traumatic, an event must involve actual or threatened death or personal injury, or threat to physical integrity, either to oneself or another person. In addition, learning about unexpected or violent death, serious harm, or threat of death or injury to a close acquaintance is also recognised as traumatic (APA, 2000). Thus, certain events such as military combat, automobile accidents, and terrorist attacks, are classified as inherently traumatic.

On the contrary, other definitions focus on the response to the event, rather than the event itself. For example, some researchers (e.g. Breslau & Davis, 1987; S. D. Soloman & Canino, 1990) maintain that whether an event is perceived to be traumatic by an individual and engenders a traumatic response, is of greater importance. Any event therefore, has the potential to be 'traumatic' if it is perceived as such and triggers symptoms of traumatic stress.

More comprehensive definitions (e.g. Black, 2001), base traumatic events upon the interplay between event characteristics and the individual response. Particular events that are likely to trigger a traumatic reaction are noted, and it is recognised that post-traumatic stress reactions can appear after any event.

The classification of traumatic incidents therefore, can encompass a wide array of specific events. They can be either personally dangerous, as in dealing with violent offenders, or relate to the injury and death of others, such as dealing with mutilated bodies. Categories of events include: disasters of natural and human origin, (e.g. Cyclone Bola, the Mount Erebus disaster); shootings, (e.g. the Aramoana massacre); civilian violence, (e.g. the 1981 Springbok rugby tour), dealing with abused or maltreated children, and general scenes of death and mutilation. An Australian study by Coman (1993, as cited in Stephens, 1996) demonstrated that the most traumatic events reported by police included duties relating to violent death, injury or the non-accidental death of a child, events involving possible physical injury, and unpredictable situations.

Traumatic Stress

Traumatic Stress Reactions

The effects of traumatic events have been known for centuries. Trimble (1981) for instance, noted that post-traumatic stress was well reported following the Great Fire of London in 1666. Charles Dickens described in his personal diary his own battle with post-traumatic stress following a railway disaster (Everly, 1995), and in “King Henry IV”, Lady Percy forlornly narrates her husband’s disturbed sleep following his return from combat: his murmurs of “prisoners’ ransom and of soldiers slain”, and the “beads of sweat” upon his brow (P. Alexander, 1978, pp. 489-490).

Even so, little has been known about specific traumatic stress effects until relatively recently. It has only been over the past three decades that systematic attempts have been made to investigate post-traumatic reactions. Initially, such research focused exclusively on the ‘primary victims’, particularly the survivors of tragedies. It was assumed that ‘helpers’, such as police personnel did not develop post-traumatic reactions by virtue of their training (J. T. Mitchell & Dyregrov, 1993). They were considered immune from

the traumatic sequelae that befell the survivors and were rarely considered as potential 'victims' (Raphael, Sing, Bradbury & Lambert, 1983; Shepherd & Hodgkinson, 1990).

In the 1970s however, a substantial body of literature began to emerge, contending that police officers experience higher levels of many social and medical problems than members of the general population. Reiser (1974) for example, spoke of officers who had become 'emotionally hardened' and isolated themselves from others. Stratton (1978) found that police officers experienced a high divorce rate. Kroes (1974, as cited in J. T. Mitchell & Dyregrov, 1993) noted that no occupation exceeded that of police officers in combined standard mortality rates for coronary heart disease and diabetes mellitus, and Nelson and Smith (1970) reported a very high suicide rate among police officers. However, Hans Selye (1978) was the first to actually document that police work was one of the most stressful occupations.

A number of authors have gone on to explore exactly which tasks are considered stressful. A survey of police in the United States for example, showed that duties concerned with violence or threatened violence were rated as the most stressful (Sewell, 1993). Martin, McKean and Veltkamp (1986) surveyed 53 police officers about their stressful experiences in the line of duty. The most stressful events reported were: being shot at, being physically threatened, having one's family threatened, and working with victims who were badly beaten. More recently, Violanti (1993, as cited in Violanti, 1996) documented that 'killing someone in the line of duty', 'death of a fellow officer' and 'physical attack' were the most stressful situations reported by his sample. Others have noted that the most distressing event is the death or injury of a fellow officer (Aron, 1992; Horn, 1989; Speilberger, 1981; as cited in Violanti, 1996). Thus, traumatically stressful tasks tend to involve violence and the use of force.

It is also recognised that traumatic reactions are not necessarily confined to such low frequency, potentially high-impact incidents (J. Brown, Fielding & Grover, 1999). Less dramatic incidents can accumulate over time and also trigger a traumatic stress reaction, known as 'sequential traumatisation' (Gersons & Carlier, 1990, as cited in Hetherington,

Munro & M. Mitchell, 1997). But whatever event triggers a traumatic stress reaction; all reactions are a normal response to an abnormal situation (Sewell, 1993). Research indicates that over 85 % of emergency personnel involved in a traumatic incident have experienced traumatic stress reactions at some time (J. T. Mitchell & Bray, 1990). The reactions experienced by police officers are not unusual, even if viewed by the individual as unique. Individuals tend to react similarly to stressful situations and reactions can be organised into three general clusters: (a) physical reactions, (b) behavioural and (c) psychological reactions.

Physical Effects of Trauma

A variety of physical symptoms can result from exposure to stressful events. Firstly, some physical effects are immediate, such as physical fatigue, psychomotor dysfunction and dizziness (Byl & Sykes, 1978; Illinitch & Titus, 1977, as cited in J. T. Mitchell & Dyregrov, 1993). Sleep disturbances, nausea, and reduced sexual interest and appetite have also been reported in emergency personnel (J. T. Mitchell, 1982). Such physical effects may manifest as an increased injury rate. For example, Keena (1981, as cited in J. T. Mitchell & Dyregrov, 1993) noted that the injury rate among emergency personnel leapt from 22 % in routine calls to 50 % when stress levels increased.

Secondly, physical traumatic reactions can be long lasting. Reactions can show up as various lifestyle diseases, often caused by various habits that can stem from high stress levels. For example, irregular and poor eating habits, smoking and alcohol and caffeine intake (Violanti, Vena & Marshall, 1986). In a review of 149 occupations, Guralnick (1963, as cited in Violanti, 1996) found police officers had a significantly high incidence of heart disease and diabetes. Over ten years later, Milham (1979, as cited in Violanti, 1996) documented the trend was still continuing. He reported that police officers are at increased risk of dying from cancers of the colon and liver, diabetes and heart disease. Research of Jacobi (1976) lends further credence to these results. Jacobi (1976) observed that police compensation claims were six times the rate of other occupations, and 50 % were for high blood pressure. Findings of the Buffalo, New York cohort study carried out by Violanti et al. (1986) also substantiate these results. Their results showed

that in comparison to municipal workers, police officers were found to have a significantly higher risk for cancers of the digestive organs, oesophagus and colon, ulcers and heart disease. In addition, the average age of death for Police officers was 64.3 years – markedly lower than the predicted age of 76 years at that time for United States males.

Similar trends are also evident in New Zealand police officers. Heart disease contributed to 25 % of all sworn staff mortalities between 1985 and 1995 (Miller, 1996).

Furthermore, 38 % of Police disengagements reportedly had a physical or medical component, with cardiovascular conditions constituting 12.4 %.

Behavioural Effects of Trauma

In addition to physical effects, traumatic stress reactions can also take the form of behavioural changes. A variety of behavioural manifestations of stress have been noted in disaster workers, including poorer performance, suppression of conversation, excessive talking, under-or-over-eating and substance abuse (e.g. Hartsough, 1985; Myers, 1989; Butcher & Dunn, 1989, as cited in J. T. Mitchell & Dyregrov, 1993), but the traditional behavioural indicator of work-related stress is withdrawal, including absenteeism from work and job turnover. In this context, absenteeism or leaving the occupation altogether are ways to express neglect and disrespect towards work. These are also ways of avoiding and escaping aversive work situations, so police officers can reduce or even eliminate stress (Bremner, Southwick, Darnell, & Charney, 1996; Koslowsky, 1998; Reiser & Geiger, 1984; Smith & Ward, 1986). Absence and turnover therefore, do not allow the individual to confront the stressor, and do not necessarily solve officers' problems.

Psychological Effects of Stress

Just as a person's physical health and behaviour can be affected by traumatic stress, psychological functioning can also be damaged. The psychological effects of trauma exposure are many and varied. For instance, one study alone identified 43 different variables representing psychological reactivity, including depression, anxiety, guilt and sleep disturbances (Kahn & Byosiere, 1991). Anger has been reported in rescue workers

(Illinich & Titus, 1977, as cited in J. T. Mitchell & Dyregrov, 1993), and Stratton, Parker and Snibbe (1984) documented a variety of other psychological reactions in a sample of deputy sheriffs, including time distortion, elation and crying.

In addition to depression, anxiety, guilt and sleep difficulties, flashbacks can occur. The traumatic event may unexpectedly flash before an officer's eyes, accompanied by the emotional feelings associated with when the trauma occurred (Reiser & Geiger, 1984). Intrusive re-experience of feelings and ideas related to the experience, and avoidance of all phenomena related to the event, are also characteristic psychological symptoms of traumatic stress (Lee & Slade, 1996).

To place findings in a New Zealand context, Hodgkin and Stewart (1992, as cited in Buchanan, 1994) reported that 80.5 % of members of police recovery teams involved in the Mount Erebus disaster of 1979 were suffering from sleep disorders. In addition, the New Zealand Police (1998) reports that psychological factors are the primary reasons for officer retirement, accounting for 67 % of cases, particularly depression and anxiety.

Police Suicide

It therefore follows that post-traumatic reactivity may lead some police officers to resort to suicide. As early as the 1930s, the police suicide rate in New York City was found to exceed that of the general population (Friedman, 1968, as cited in Violanti, 1996). In the 1980s, police officers continued to possess a higher suicide rate: police suicide rates were documented to be approximately three times higher than other occupations in the Buffalo Police Cohort study (Violanti et al. 1986). Furthermore, a re-analysis of 1967 New York City police suicide findings revealed that 25 % of officers who committed suicide had also suffered from depression (Lester, 1993).

The results of New Zealand-based research mirror the aforementioned literature. The suicide rate in the New Zealand police is 20.1 deaths per 100 000 individuals per annum; the national suicide rate is 17.1 deaths (New Zealand Police, 1998). Suicide was the highest cause of sworn-staff member deaths between 1990 and 1997. Furthermore, in all

but one New Zealand police suicide that occurred between 1985 and 1995, depression was the most likely explanation, accounting for 37.5 % (Miller, 1996; New Zealand Police, 1998).

Moreover, it is apparent that police suicide rates are increasing. Between 1985 and 1990, the suicide rate of New Zealand Police officers was 16.3 deaths per 100 000 people per year, but between 1990 and 1997, this increased to 20.1 deaths per 100 000 (Miller, 1996; New Zealand Police, 1998). Ongoing research conducted by John Violanti in the United States indicates that police suicide rates have continually increased since 1950. From 1950 to 1979, the average rate of police suicide in his sample was one every 2.5 years, but between 1980 and 1990, this had risen to one suicide every 1.25 years (Violanti, 1994, as cited in Violanti, 2000).

Although post-traumatic stress reactions are similar in that they generally fall into three clusters, their time period may vary. In some circumstances, post-traumatic reactions can persist and prevent normal functioning. Consequently, they may develop into an actual disorder, recognised by the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV, APA, 2000).

Post Traumatic Stress Disorder

DSM-IV Diagnostic Criteria

If post-traumatic symptoms do persist, but are resolved within four weeks of the traumatic event, Acute Stress Disorder may be diagnosed (APA, 2000). However, if symptoms persist for more than one month, Post-traumatic Stress Disorder (PTSD) may be diagnosed instead. Alternately, symptoms may not emerge until several months after exposure to a traumatic event. This is recognised as delayed-onset PTSD. For instance, symptoms have been reported to appear up to 20 months after the event (Taylor & Frazer, 1982).

The fundamental feature of PTSD is the development of three core clusters of symptoms following exposure to a traumatic event: intrusion, avoidance and hyperarousal (APA, 2000) (see Appendix A). Stimuli associated with the trauma may continually intrude into an officer's thoughts, even as they try to avoid all reminders of the incident. They may also experience symptoms of heightened physiological arousal, such as irritability and hypervigilance. Additional symptoms include paranoia, anger, compulsive behaviour, depression and panic attacks. A number of other symptoms may be associated with PTSD, including hopelessness, social withdrawal, impaired relationships with others, and self destructive and impulsive behaviour.

The prevalence rate of PTSD in police officers compared to general population samples, assumes a similar pattern as the rate of traumatic exposure. Ryan (1998) for example, reported the general population prevalence of PTSD to be 1-2 %. However, 12 to 35 % of police officers are estimated to suffer from PTSD at some time in their career (Mann & Neece, 1990). Stephens (1996) for instance, assessed the prevalence of PTSD symptoms in a sample of New Zealand police officers and 7.1 % of respondents were found to meet DSM-IV classification criteria for PTSD. Thus, a possible role for the police occupational culture is indicated.

The Police Occupational Culture

Indeed, in addition to the higher rate of traumatic exposure, the occupational culture of the police can also influence rates of PTSD. As a number of authors note it is important to situate individual experiences within the context of an occupation's culture, to broaden the understanding of traumatic stress reactivity within policing (e.g. Briner, 1996; Stern, Stein & Bloom, 1956; Violanti, 2000).

The prevailing occupational culture in law enforcement comprises a self-image of invulnerability, powerfulness, and of resourcefulness - what is referred to as the 'helper stereotype' (Short, 1979, as cited in MacLeod & Paton, 1999). This self-image is reinforced through successful performance of duties in most operational situations. Thus, police officers come to approach potentially hazardous and threatening situations with

high performance expectations. Such expectations are essential as police officers' authority is based on the suppression of emotional affect (Reiser, & Geiger, 1984). Just as an officer's physical safety must be maintained, so must his or her emotional safety. However, suppression of affect can exacerbate traumatic reactions if success is not forthcoming. Some events may be simply too overwhelming, and subsequently shatter the sense of invulnerability and invoke feelings of shame, fear and danger. This is backed up by the findings of Stephens, Long and Miller (1997). The authors suggested that New Zealand police officers with a stronger 'toughness' ethic were at higher risk for developing PTSD compared to other police officers. Indeed, crisis theory states that people who have been involved in traumatic events are naturally inclined to share their experiences and emotions with others (Carlier & Gersons, 1997), but this process often fails to operate in the police (Carlier & Gersons, 2000).

At present, post-traumatic stress reactions are of great concern to the New Zealand Police. A recent report revealed that psychological factors were a factor in 73 % of officer disengagements, 21 % of which exhibited stress and post-traumatic stress reactions (New Zealand Police, 1998). In addition, to disengagement costs, increased expenditure has also arisen from litigation claims for officer compensation (e.g. *Brickell v. Attorney General*, 2000). However, it is important to note that compensation claims may not have necessarily resulted from PTSD claims, but from other stress-related illnesses, and failure on the organisation's part to detect illness and offer treatment (J. M. Brown & Campbell, 1994; Deahl, 1998; 2000; Paton, 1997; Paton & Smith, 1995). Minimising the adverse effects of traumatic exposure is therefore an important issue for police management in New Zealand (Howard, Tuffin & Stephens, 2000; Stephens & Long, 2000).

Post-traumatic Stress Intervention

Debriefing

To address traumatic stress reactivity in the police, policies have been put in place to provide psychological assistance following traumatic exposure. Sources of traumatic stress are an inherent part of police work (Stephens, Long & Miller, 1997) so efforts have predominantly focused on minimising the development of PTSD following trauma, termed 'secondary prevention' (Deahl, 1998).

To help reduce the development of PTSD, the New Zealand Police Trauma Policy was introduced in 1992 to provide psychological support in the form of debriefing (see Appendix B). This is provided by an independent mental health professional who acts to facilitate discussion of the incident with the nominated staff members(s). The guiding principle of the policy is: "The provision of a quick response to, and confidential support contact between members of Police and mental health professionals who provide such services" (Black, 2001, p. 2). 'Support' is defined as "treatment and/or assessment for the purposes of treatment", (Black, 2001, p. 2). The trauma policy provides for both voluntary and compulsory debriefings, on a group or individual basis, depending on the specific traumatic circumstances at hand.

Debriefing was introduced to emergency services in the 1980s (Hobbs & Adshead, 1997). Various debriefing models are now available (e.g. Critical Incident Stress Debriefing, J.T. Mitchell, 1983). The New Zealand Police Trauma Policy is not based on any particular debriefing protocol, although there does exist a common denominator between the trauma policy and most debriefing models: a 'pathogenic' framework (Stuhlmiller & Dunning, 2000; Violanti, 2000). Pathogenesis presupposes the 'sick role'. It assumes that all individuals who experience traumatic events will go on to exhibit traumatic symptoms, and must therefore be 'treated'. In this respect, debriefing reflects 'learned helplessness', in that traumatic reactions are understood to be inevitable following exposure to a traumatic event.

Nonetheless, debriefing is instinctively appealing and it does appear to be a compassionate, caring response to psychological distress (Deahl, 2000; Raphael & Wilson, 2000; Stephens, 1996). It is widely believed that ‘talking’, especially in a structured and supportive environment, helps minimise post-traumatic reactions (Dyregrov, 1999; Everly & J. T. Mitchell, 1997; Raphael, Meldrum & McFarlane, 1995), and certainly, research shows that inhibition of an emotional experience can itself be stressful (Pennebaker, 2000). Indeed, since its introduction in 1992, the New Zealand Police Trauma Policy has received increasing utilisation (see Table 1).

Table 1

Trauma Policy Referrals (1992 – 1997)

Year	Number of Referrals
1992	138
1993	399
1994	481
1995	670
1996	735
1997	1 163
1998	1 153
1999	1 140
2000	1 149
Total	3, 563

Note. From *Attrition in the New Zealand Police: Proceedings of the Disengagement Summit* (p. 82), New Zealand Police, 1998, Wellington: New Zealand Police.

However, the effectiveness of debriefing has become a contentious area of mental health research. While some findings are supportive of debriefing, other studies conclude it has no effect, or may even exacerbate symptoms.

The Effectiveness of Debriefing

Support for the effectiveness of debriefing has stemmed from two types of research: (a) satisfaction studies, and (b) outcome evaluations. Satisfaction assessments are based on the opinions of debriefing recipients. For example, in a sample of Australian emergency personnel, Robinson and J. T. Mitchell (1993) reported that most respondents perceived debriefing to be beneficial and felt less stressed. Similarly, Robinson, Sigman and Wilson (1997) noted that the majority of police officers in their sample thought debriefing would be beneficial. The authors concluded that debriefing might be essential to the well being of police officers. Armstrong et al. (1998) also reported debriefing to be rated positively by Red Cross personnel following the 1994 Los Angeles earthquake relief operation. Similar findings are also reported with disaster victims (Shapiro & Kunkler, 1990, as cited in Raphael et al. 1995), psychiatric nurses (Flannery, Fulton, Tausch & DeLoffi, 1991) and fire victims (Turner, Thompson & Rosser, 1993). Some researchers have gone on to investigate why debriefing is perceived to be helpful. For instance, Burns and Harm (1993) report that recipients often mention group aspects of debriefing: discussing the incident with others, recognising they are not alone, listening to others talk, being part of group who had experienced the same incident, and hearing how others coped with the incident.

The above results are consistent with the finding that recently traumatised people need emotional support, mutual identification and understanding (Carlier & Gersons, 2000). Nevertheless, satisfaction assessments are limited as they are anecdotal and rely on subjective evaluations only. Perceived usefulness is not necessarily associated with improved objective outcomes when measured objectively. Many studies show that high levels of satisfaction are not statistically correlated with lower levels of symptoms (Doctor, Curtis & Isaacs, 1994; Lee, Slade & Lygo, 1996; Bisson, Jenkins, Alexander &

Bannister, 1997; Carlier, Lamberts, Van Uchelen & Gersons, 1998; Small, Lumley, Donohue, Potter & Waldenstrom, 2000).

In addition to satisfaction assessments, outcome evaluation studies also provide support for the effectiveness of debriefing. Outcome evaluation studies essentially explore post-traumatic stress symptoms in debriefing recipients using self-report scales, with or without a control group. In general, research without a control group is supportive of debriefing (Carlier & Gersons, 2000), and the majority of these studies report a reduction in symptoms following the intervention. For example, Busuttil et al. (1995) assessed the efficacy of debriefing in the reduction of PTSD symptoms in a sample of war veterans, and reported an improvement in most participants. Chemtob, Tomas, Law and Cremniter (1997) reported similar findings in relation to disaster-related distress, and concluded preliminary empirical support for the effectiveness of post-traumatic debriefing. Other exploratory research of post-traumatic stress symptom has reached similar conclusions (e.g. D. A. Alexander, 1993; Jenkins, 1996; Robinson & J. T. Mitchell, 1993; Turner et al. 1993). But because such exploratory, descriptive studies do not include a control group, these apparent improvements do not necessarily support debriefing effectiveness.

The Ineffectiveness of Debriefing

Some outcome evaluation studies do include a control group, and compare post-traumatic stress symptoms in debriefed individuals, to the levels of symptoms in non-debriefed individuals, and are known as randomised-control-trials (RCTs). This method of investigation, with respondents preferably allocated to groups at random, is considered by some authors to be the only means of assessing the true efficacy of debriefing (e.g. the Cochrane library, cited in Deahl, 2000; Raphael et al. 1995; Small et al. 2000). However, such research raises several problems concerning ethics and the traditional design of RCT research (see Deahl, 2000). Moreover, research carried out so far provides little evidence of the effectiveness of debriefing in minimising PTSD (Armstrong et al. 1998; Bisson & Deahl, 1994; Busuttil & Busuttil, 1997; Dyregrov, 1997; Raphael et al. 1995; Rose & Bisson, 1998; Wessely, Rose & Bisson, 1999). Compared to satisfaction assessments,

and evaluations without a control group, many RCTs have illustrated that debriefing has no influence on traumatic symptoms.

One of the first studies to use a control group in the assessment of debriefing effectiveness was conducted by Deahl, Gillham, Thomas, Searle and Srinivasan (1994). The researchers looked at 62 British Gulf War veterans whose tasks had included identifying the bodies of allied and enemy soldiers. When the soldiers returned to the United Kingdom debriefing was organised, but for one group, this was not operationally possible. Nine months after their return, all participants completed the Impact of Events Scale (IES) and General Health Questionnaire (28-item version; GHQ-28). However, no significant differences were found between scores of soldiers who had received debriefing and the scores of soldiers who had not. However, the possibility that debriefing recipients initially had higher morbidity levels cannot be ruled out, as no baseline measurements of pre-existing psychiatric morbidity were taken.

In addition to Gulf War veterans, victims of road traffic accidents have been the focus of evaluation research. For example, Hobbs, Mayor and Warlock (1993, as cited in Hobbs & Adshead, 1997) studied patients admitted to two Oxford hospitals following a road accident. Participants were randomly allocated to either an intervention or non-intervention control group and various baseline measurements were taken. Participants allocated to the experimental group were then offered individual debriefing. However, at the four-month follow-up, there were no significant reductions in post-traumatic symptoms in either group.

Controlled evaluation research has also been conducted with victims of violent crime. Rose, Brewin, Andrews and Kirk (1999) for instance, studied 230 individuals who had been the victims of a violent crime within the past month (operationally defined as the experience of actual or attempted physical or sexual assault, or a bag snatch). The participants were randomly allocated to either: (a) an education condition, (b) a psychological debriefing plus education condition, or (c) to an assessment only condition.

Education involved the provision of information about normal post-trauma reactions, and debriefing involved individual discussion about the incident, and thoughts and feelings associated. 138 participants were followed up at six months, and the remaining 92 were followed up at 11 months. Outcomes assessments were made using a DSM-III-R diagnosis of PTSD, the Post-traumatic Symptom Scale, the IES and the Beck Depression Inventory. Findings indicated that all three groups improved, however, there were no differences between them. The authors therefore concluded that no evidence had been obtained to support the effectiveness of either education or debriefing in the prevention of post-traumatic symptoms. However, the range of participant experiences was vast, which may have distorted results. Furthermore, debriefing was not assessed separately, thus its true influence could not be assessed.

In addition to Gulf War veterans, road traffic accident victims, and victims of violent crime, controlled evaluation studies have also investigated debriefing following miscarriage. Lee et al. (1996) for example, looked at the effectiveness of individual debriefing in improving the emotional adaptation of patients who had just experienced miscarriage. Half the women received debriefing two-weeks post-miscarriage, and all were assessed at one week and four months post-miscarriage, using the Hospital Anxiety and Depression Scale and IES. Although debriefing was perceived to be helpful by recipients, it did not influence emotional adaptation.

The conclusions reached by the aforementioned studies, that debriefing has no influence on post-traumatic symptomatology, are of lesser concern however, compared to several studies that suggest debriefing may exacerbate traumatic symptoms. For example, Kenardy et al. (1996) carried out a longitudinal study of recovery workers following an earthquake in Newcastle, Australia. Sixty-two workers had received debriefing, and 133 had not. Post-traumatic stress reactions and general psychological morbidity were assessed four times in the first two years following the earthquake, using the IES and GHQ (12-item version; GHQ-12). However, there was no evidence of an improved rate of recovery among debriefed helpers, even when level of exposure and helping-related

stress were controlled for. In fact workers who had received debriefing showed less improvement in post-traumatic symptoms than those who had not received debriefing.

Secondly, Hobbs, Mayou, Harrison and Worlock (1996) assessed the efficacy of a single debriefing session in the reduction of post-traumatic psychopathology in road accident victims. Participants were randomly assigned to the intervention or control group using a random number table, and all were initially screened using a semi-structured interview and two self-report questionnaires (the IES and the Brief Symptom Inventory). All participants were reassessed at four months using the same interview and self-report questionnaires. Neither the intervention or control group showed any significant reduction in post-traumatic reactions. However, participants in the intervention group had a greater degree of injury and longer stay in hospital than non-debriefed controls.

In addition to recovery workers and road accident victims, evaluation research with victims of acute burn trauma also indicates that debriefing may induce psychological morbidity. For example, Bisson et al. (1997) examined the efficacy of debriefing in reducing psychological sequelae in 133 adult burn trauma victims. All individuals completed a variety of questionnaires, including a depression scale, the IES and a questionnaire concerning aspects of the burn trauma. Individuals were randomly allocated to the debriefing or control group and were interviewed by an assessor (blind to their group status), three and 13 months post-intervention. However, at the 13-month follow-up, over one quarter of the debriefing group had developed PTSD, compared to only 9 % of the control group. But it is important to note that the debriefing group had higher initial questionnaire scores and more severe burn trauma than the control group, which may explain this outcome.

More recently, Regehr and Hill (2001) assessed the efficacy of debriefing for 164 Australian firefighters following a traumatic incident. Findings indicated that most fire-fighters who attending debriefing rated it highly in reducing stress levels. However, there was no significant correlation between attending a debriefing and scores on the

Beck Depression Inventory, and debriefing was associated with higher scores on the intrusion subscale of the IES.

In light of the aforementioned studies, results of debriefing evaluation research are mixed. Satisfaction assessments, and outcome evaluations without a control group generally report positive findings, but RCTs, considered by some authors to be the most appropriate method to conduct such research, generally report that debriefing has no effect on post-traumatic symptoms. Moreover, other RCTs suggest that debriefing may induce symptoms, and in accordance with this suggestion, some authors have recommended that debriefing discontinue (e.g. Bisson et al. 1997). However, a number of factors other than debriefing can influence the development of post-traumatic reactions following trauma. Traumatic stress is relational in nature and evolves from the interaction between an incident and various environmental and individual factors (Barrett & Mizes, 1988; Breslau & Davis, 1987; Green & Berlin, 1987). The following chapter will examine those factors most likely to influence traumatic stress reactions.

Other Factors that can Influence Traumatic Stress Reactions

Environmental Factors

One environmental factor that can mitigate the development of traumatic stress reactions is social support. Social support has been defined as "... resources (actual or perceived) available from one or more others to assist the focal person in the management of stress experiences and to increase the experience of well-being" (McIntosh, 1991, p. 202). Social support is proposed to strengthen a police officers' ability to successfully manage the demands of traumatic situations (Cohen & Willis, 1985), and in turn, weaken the positive relationship between traumatic stressors and reactivity. For example, in a sample of British police officers, J. Brown et al. (1999) found that social support minimised the chances of suffering psychological distress. Similarly, a lack of genuine available social support increased the vulnerability of Australian police officers to stress symptoms and diminished their ability to cope (Leonard & Alison, 1999). Stephens (1997) examined

the influence of social support on trauma recovery following trauma with approximately 500 New Zealand police officers, and as predicted, greater social support was associated with fewer PTSD symptoms.

A second environmental factor that can influence traumatic stress reactions is organisational stress. Compared to traumatic stressors, organisational stressors, including shift work, insufficient personnel, and limited participation in decision-making, are relatively routine. They occur on a daily basis and with lesser impact, so their effects are more cumulative in nature. Nevertheless, research concludes that routine organisational stressors have a substantial psychological impact. For example, Kroes, Margolis and Hurrell (1974) found the principal stressors reported by police officers to be administrative, such as lack of participation in decision-making, adverse work schedules and offensive policies. Indeed, organisational stressors often emerge as the more troublesome stressors (e.g. Martelli, Waters & Martelli, 1989; Spielberger, Westberry, Grier & Greenfield, 1981; Violanti, 2000), and when coupled with traumatic stressors, the chances of experiencing a traumatic stress reaction are heightened (C. Alexander, 1999).

Individual Factors

In addition to environment factors, a number of individual factors can influence the development of traumatic stress reactions. For instance, prior exposure to traumatic events can increase an individual's chances of developing post-traumatic stress. It is often presumed that police officers are hardier than the general population and that experience with traumatic incidents increases their ability to withstand the effects of exposure. However, research suggests that resiliency declines with greater exposure to trauma (Moran & Britton, 1994). For example, evidence suggests that the number of traumatic events experienced is related to the severity of post-traumatic stress symptoms. Several studies (e.g. Follette, Polusny, Bechtle & Naugle, 1996; Norris, 1992; Weiss, Marmar, Metzler & Ronfeldt, 1995) demonstrate that the greater the exposure to trauma, the more likely a person is to exhibit psychological symptoms. A study of 527 New Zealand Police officers showed that the number of different traumatic events, whether

experienced on duty as a police officer or while off duty, was positively correlated with the severity of PTSD symptoms (Stephens & Miller, 1998).

This phenomenon can be explained by the theory of Williams (1993). If individuals have not resolved previous trauma, they may 'stair-step', to more pathological reactions when exposed to another trauma. Moran and Britton (1994) for instance, noted that a greater number of incidents attended by emergency workers, predicted a longer and more severe stress reaction.

In addition to other trauma, a variety of demographic variables can influence the development of post-traumatic symptomatology (Green, Wilson & Lindy, 1985; Paton & Smith, 1995; Smith & Ward, 1986), including: gender, age and length of service, education, and marital status

Gender.

The female gender has been associated with greater psychiatric symptoms (Smith & North, 1993). In addition to the stresses of police work, female officers must potentially contend with the extra stress associated with being women in a traditionally male occupation. For example, their ability and/or femininity may be questioned, and they may face discrimination from other personnel. The stress associated with gender discrimination may in turn combine with traumatic and organisational stress to increase the sense of anger, depression and hopelessness, characteristic of PTSD. J. Brown and Fielding (1993) for instance, document that policewomen in a British sample were more likely than their male counterparts, to report feeling stressed in relation to their operational duties. In a general sample of crime victims, Norris (1992) reported that women exhibited a rate of PTSD more than twice the rate of men. Similarly, Green (1994) highlights evidence that indicates gender is a risk factor for PTSD following exposure to a traumatic event.

Age and Length of Service.

Post-traumatic research has found on numerous occasions that PTSD symptoms decrease with age. For example, in Norris' (1992) general population sample, older people consistently showed lower rates of PTSD across all types of traumatic events. Robinson et al. (1997) hypothesised a positive, linear correlation between age and symptoms of stress: younger officers reported more PTSD symptoms. Taylor and Frazer (1982) noted a significant, negative correlation between age and stress scores for emergency workers involved in the Mount Erebus disaster. Spielberger et al. (1981) reported similar findings concerning United States police officers.

These findings could be related to length of service. For instance, police officers with the least experience may be at greater risk for PTSD symptoms because they have not yet developed beneficial coping strategies. Alternately, younger police officers may not be as emotionally hardened to traumatic stressors as older members and thus, more penetrable to the adverse effects of traumatic stimuli. Indeed, police officers with less experience do tend to pose a greater risk for the development of PTSD (J. Brown et al. 1999; Moran & Britton, 1994; Sewell, 1993; Stephens, 1997).

Education.

There is evidence that the higher a person's level of education, the better their adjustment following trauma (Norris, 1992). Education is often considered to be a substitute measure for socio-economic status (McIntosh, 1991), and may influence how traumatic experiences are appraised, and subsequently traumatic reactions. For instance, in a New Zealand sample of Vietnam veterans' higher levels of education were associated with lower PTSD scores (Vincent, Long & Chamberlain, 1991).

Marital Status.

Marital status is also an important demographic variable because of its relationship with sources of social support outside of work. Although support from supervisors and colleagues is considered to be imperative, evidence suggests that for men in particular,

partners represent an important source of support (e.g. Paton, 1994; Paton & Smith, 1995).

A number of variables can therefore mitigate the development of post-traumatic stress reactions, other than debriefing. In accordance, these need to be taken into account when evaluating the effectiveness of debriefing in reduction of post-traumatic reactions. Whilst the current evidence regarding the effectiveness of debriefing is mixed, but some research does not address any of these factors (e.g. Kenardy et al. 1996; Small et al. 2000). Furthermore, only a small amount of evaluation literature has addressed emergency personnel, let alone police officers, but to enhance the generalisability of results, evaluation research needs to be conducted in relation to specific risk groups (Bisson & Deahl, 1994; Deahl et al. 1994). In addition, the design and implementation of any formalised intervention program requires extensive organisational resources (Bisson & Deahl, 1994; Deahl et al. 1994). It is therefore important to ascertain the cost-effectiveness of debriefing.

Since the introduction of debriefing in the New Zealand Police with the trauma policy in 1992, no systematic evaluation of debriefing effectiveness has been conducted. Thus, the New Zealand Police Trauma Policy needs to be evaluated, with an outcome evaluation and control group of non-debriefed individuals, and whilst controlling for social support, and organisational stress; gender, age and length of service, education and marital status.

The Present Study

Main Research Question: Evaluating the use of debriefing in the New Zealand Police

The goal of the present study is to assess the effectiveness of debriefing five years after a traumatic incident with a sample of New Zealand Police officers. This is broken down into four objectives.

(1) PTSD symptoms

PTSD is arguably the definitive psychological outcome of traumatic exposure. Clinical evidence exists suggesting that New Zealand Police officers are likely to experience many symptoms of PTSD (Ford, 1993). Furthermore, it is considered essential to assess specific traumatic outcomes in populations exposed to traumatic events on a regular basis, rather than psychological reactions in general, (Paton & Smith, 1995).

Objective 1

To evaluate the effects of debriefing in the mitigation of PTSD symptoms after a traumatic event.

(2) General Physical Health

Reactions to traumatic exposure can also be physical, on either a direct basis, (such as high blood pressure), or an indirect basis (such as cancer due to smoking) and research indicates that over one-quarter of officer disengagements from the New Zealand Police have a physical component (Miller, 1996).

Objective 2

To evaluate the effects of debriefing in the mitigation of general physical symptoms after a traumatic event.

(3) General Psychological Health

In addition to PTSD, a variety of general phobic states, depression and anxiety disorders are also recognised following trauma (Kahn & Byosiere, 1991).

Objective 3

To evaluate the effects of debriefing in the mitigation of general psychological symptoms after a traumatic event.

Subsidiary Research: Subjective Opinion vs. Objective Assessment

Literature that compares objective assessments of debriefing to subjective assessments has generally found inconsistent results: while subjective opinions are positive, objective outcomes generally are not. Yet, it has been argued that positive subjective outcomes are reason enough to continue using debriefing following trauma by some authors.

Subsidiary Research Question

To assess the relationship between perceived helpfulness of debriefing and objective outcome measures of the effectiveness of debriefing.

Method

Participants

Seventy-four (74) members of the New Zealand Police employed in Hawkes Bay during 1996 were surveyed, as were their partners. Table 2 shows the distribution of respondent categories. The sample consisted of four groups: (a) sworn staff members, (b) non-sworn staff members, (c) sworn members who have since left the New Zealand Police and (d) partners of sworn staff members.

Table 2

Respondent Categories

Category	n	Percentage
Sworn Staff Members	46	68.0
Non-sworn Staff Members	5	7.0
Sworn Members Since Left	7	10.0
Partners	10	15.0
	68	100.0

Of those sent questionnaires, 22.8 % responded, rendering 68 completed questionnaires. Partners were subsequently dropped from the main analyses as they proved to be a confounding variable. The trauma policy was not designed specifically for partners, and some sections of the questionnaire were irrelevant to them, so they were a source of considerable missing data.

The Measures

The questionnaire (see Appendix C) consisted of 8 sections. In the initial section, participants could give their perspectives on the incident in question and the associated debriefing. The following three sections examined the present psychological and physical well being of the respondents. The next three sections assessed various variables reported to moderate the relationship between exposure to a traumatic event, and subsequent reactivity, and the final section concerned demographics.

Respondent Perspectives of Debriefing

The first section of the questionnaire was to provide a preliminary assessment of the effectiveness of debriefing from the participant's own point-of-view. Initially, participants were asked to rate how the incident had affected them on a scale of 0 ("no effect") to 4 ("tremendous effect"). Secondly, participants were asked whether or not they had attended a debriefing session following the incident, and if so, to indicate on a 5-point scale ("ranging from not at all helpful to "extremely helpful") how beneficial they had thought it to be. Space was also provided in order for participants to describe how the debriefing was or was not helpful.

Post-traumatic Symptoms

To measure the presence and intensity of symptoms of post-traumatic stress disorder within the respondents, the revised version of the Impact of Events Scale (IES-R; Weiss, 1993) was used. Respondents were requested to answer a total of 22 questions based on the three symptom clusters of PTSD (see Appendix A). The original instructions ask respondents to answer according to how they have been feeling "during the past 7 days ...". This time span was altered to "immediately prior to today", as present symptoms were required, rather than symptoms following the incident. The original scoring scheme of Weiss and Marmar (1997) was maintained. Answers were rated on a 5-point likert scale from 'not at all' (0) to 'extremely' (4). A total score is obtained by summing across the scores on all items with a possible range of 0 to 88. The range was 0 to 61 in the

present sample, with a mean of 24 ($N= 57$, SD 15.29). Lower scores indicate fewer PTSD symptoms and higher values indicate more PTSD symptoms.

Coefficient alpha estimates of internal consistency in a study of emergency personnel reported by Weiss and Marmar (1997) ranged from .79 to .87 across each of the three subscales. The test-retest correlation coefficients ranged from .51 to .59.

General Psychological Well being

To assess the general psychological status of participants, the 12-item version of the General Health Questionnaire was used (GHQ-12; Goldberg, 1972, as cited in Goldberg et al. 1997). The items are divided into health (positive) and illness (negative) items and cover feelings of strain, depression, inability to cope, anxiety-based insomnia and lack of confidence. Each of the 12 items asks whether the respondent has experienced a particular symptom or behaviour over the past month, rated on a 4-point scale: much more than usual (0), same as usual (1), less than usual (2), much less than usual (3). Two alternative scoring methods are used: the 'GHQ-method'; or the 'Likert-method', in which responses are given weights of 0 (much more than usual), 1 (same as usual), 2 (much less than usual) and 3 (much less than usual). The Likert method was chosen as its distribution more closely approximates the normal compared to the GHQ-method (Banks et al. 1980) and is therefore preferable in studies using parametric multivariate analyses. A total score is obtained by taking the mean of all 12 items (6 items are reverse scored). Higher scores indicate poorer psychological health.

The psychometric properties of the GHQ-12 have been convincingly demonstrated in a wide variety of community populations, such as working adults (e.g. Banks et al. 1980). For example, Winefield, Goldney, Winefield and Tiggemann (1989) reported alpha coefficient reliability estimates of .83 and .78, demonstrating that all the items measure a similar construct. A more recent study reported a test-retest correlation of $r = .73$ (Hardy, Shapiro, Haynes & Rick, 1999). Alpha coefficients (an index of internal consistency) between 0.82 and 0.90 have been reported by Banks et al. (1980) and Hardy et al. (1999) obtained a coefficient alpha estimate of 0.89. In addition, the GHQ-12

correlated highly with other mental health measures (such as the Brief Screen for Depression) and poorly with the Muscle Fatigue Scale, demonstrating evidence of discriminant validity (Hardy et al. 1999).

The GHQ-12 was used in the present study for comparing levels of psychological illness within the respondents, rather than case identification. Used in this manner, the GHQ-12 is recommended as providing a useful estimate of the severity of psychological illness for use in the study of occupational-related issues (Banks et al. 1980).

Physical Health Status

Symptoms of physical health were assessed using the Pennebaker Inventory of Limbic Languidness (PILL; Pennebaker, 1982). The PILL is a 54-item self-report tool that gauges the manifestation of various physical symptoms and sensations, such as nausea, breathlessness and sleep problems. The instructions for the PILL were modified for use in the present study to correspond with time over which PTSD and psychological symptoms were assessed. Respondents were asked to indicate “the extent to which each of the following has disturbed you immediately prior to today” a 5-point scale, from “not at all” to “extremely”. Each participant’s score was obtained by summing the rating for each item to provide a total score ranging from 0 to 216. The range was 0 to 90 in the present sample, with a mean of 25.72 ($N= 58$, $SD 22.08$).

The PILL has been used in the past to assess physical symptoms of trauma amongst law enforcement, including members of the New Zealand Police Force (e.g. Stephens, 1996; Stephens & Long, 2000). At the initial examination, Pennebaker (1982) obtained an alpha coefficient reliability estimate of 0.91, and noted good test-retest reliabilities and correlations with health-related work absenteeism, and health care visits. Similarly, Stephens (1996) reported an alpha coefficient reliability estimate of 0.92.

Control Variables

Social support.

As social support can assume different forms, each respondent's perception of emotional and tangible (instrumental) social support received were assessed using four main social support items from Caplan, Cobb, French, Van Harrison and Pinneau (1975). These same four items were used to form three subscales to assess social support from different sources: (a) supervisors, (b) co-workers and (c) family or friends. Each item was measured on a 5-point scale, ranging from "very little" to a "great deal", with each set of four items summed to create an index of social support for each particular source. The possible range of scores was from 1 to 5, with a higher score indicating stronger perceptions of support.

This measure of social support has been used extensively since its development, and the internal consistency and reliability of the subscales has received repeated investigation. For example, coefficient alpha estimates range from 0.73 to 0.94 (such as reported by Beehr, King & King, 1990; Ganster, Fusilier & Mayes, 1986; Jayaratne, Himle & Chess, 1988; LaRocco, House & French, 1980). The Caplan subscales have also been used in New Zealand research with regard to trauma and support in the police, such as Stephens (1996) and Stephens et al. (1997). Stephens (1996) reported coefficient alpha estimates between 0.80 and 0.88.

Other traumatic experiences.

A greater number of exposures to traumatic events are predictive of greater traumatic symptomatology amongst emergency personnel. (Carlier, Lamberts & Gersons, 1997; Rosine, 1992). Furthermore, the time delay between the event and the outcome assessment affords increased opportunity for respondents to experience additional traumatic events, and in turn, confound the effects of the event under consideration. On these grounds, respondents were asked to complete the Traumatic Stress Schedule (Norris, 1990) to assess the experience of additional traumatic events. The scale, as originally published, assessed the occurrence of 9 types of potentially traumatic events in

a community sample: (1) robbery, (2) physical assault, (3) sexual assault, (4) tragic death, (5) motor vehicle accidents, (6) combat, (7) fire, (8) natural disaster and (9) other hazards. The report period for event occurrence is intended to be flexible (Norris, 1990). In keeping with the research of Stephens and Long (2000), 6 other items relating specifically to police duties were included. These items were based on events which require mandatory debriefing as recommended by the New Zealand Police (1992): (1) deliberate killing by police officers, (2) deliberate or accidental death of a police officer, (3) accidental death or injury of a member of the public by a police officer, (4) work with victims of disturbing homicide, (5) attendance at severe accidents, and (6) disaster victim identification work. Thus, the Traumatic Stress Schedule, as used in the present research, consisted of 15 items. An index of traumatic experience was obtained by summing the number of events experienced, so scores could range from 0 to 15. Traumatic event scores in present sample ranged from 0 to 13, with a mean of 5.62 ($N= 58$, $SD 2.60$)

Norris and Perilla (1996, as cited in Norris & Riad, 1997) reported a test-retest correlation of 0.88 between English and Spanish versions and estimates of exposure to trauma have been reportedly stable across random community samples. The scale has also yielded estimates for trauma similar to those obtained in other research (e.g. Resnick, Kilpatrick, Dansky, Saunders & Best, 1993, as cited in Norris & Riad, 1997).

Organisational Stressors.

In addition to social support, and other traumatic experiences, it is also necessary to control for routine organisational stressors, such as excessive paperwork and shift rotation, as they can also impact on the recovery process. The Police Stress Survey (Speilberger et al. 1981) was used to measure organisational stressors. The scale is a self-report indicator of police work stressors, including the amount of stress associated with each item, and the perceived frequency of the occurrence of the event in the past month and during the past year.

Of the 60 items, the respondents in the present sample were required to answer the 30-organisational/administrative items, in relation to the amount of stress associated with

each item only. Responses were made on a scale from 0 – 100, in which 0 indicated “no stress”, and 100 indicated “maximum stress”. Individual scores were summed to yield a total organisational stress score with a possible range of 0 to 2 700. The range was 400 to 2 445 in the present sample, with a mean of 1 619.31 ($N= 52$, SD 432.15).

Demographics.

The final section of the questionnaire contained a series of demographic questions. These were chosen for inclusion based on their reported influence on traumatic stress reactions, and were age, gender, marital status, education and number of years of service.

Procedure

To introduce the study, the Manager of Psychological Services and the welfare officer for the Hawkes Bay region addressed a meeting with Hastings Police management and another with the Hawkes Bay district management to explain the purposes of the study and to answer questions. The support of Constable McKibbin’s family was also sought.

To maintain participant confidentiality, further assistance of the Manager of Psychological Services was needed in distributing the questionnaires. The Manager had access to records of the members employed in Hawkes Bay during the year of the incident. Each corresponding QID number was hand written onto a separate questionnaire and posted. An additional copy was included for their partners to complete. Each questionnaire was accompanied by a covering letter (see Appendix D), signed by the Manager of Psychological Services. This detailed the purposes of the research, and how the data was to be used. It was made clear that participation was voluntary, and would benefit all members of the New Zealand Police in the long term. A freepost envelope was also included addressed to the researcher, to be returned by public post.

The research was conducted with the approval of the Massey University Human Ethics Committee. Sources of psychological support were included in the covering letter, in the event they were required.

A follow up letter (see Appendix E) was distributed ten days after the initial distribution to remind participants to return the questionnaire.

The present study is based on an event that occurred in the Hastings suburb of Flaxmere in April 1996: the deliberate slaying of a Police officer in the line of duty. This particular incident was selected, as by its very nature, symptoms of traumatic stress were likely to be experienced by members of the New Zealand Police. In addition, five years was deemed adequate time to have passed since the event occurred.

Constable Glenn Arthur McKibbin

On the morning of Sunday April 21, 1996, Constable Glenn McKibbin was brutally slain by a member of the public in broad daylight. Constable McKibbin was working the early shift, having started at 7 am, in the Hastings suburb on Flaxmere.

At approximately 10.50 am, Constable McKibbin stopped a vehicle in Yarmouth Road for a routine traffic inquiry. After checking the vehicle and talking with the driver, they both returned to the patrol car.

Constable McKibbin had only just returned to his car, when a Ford Falcon station wagon pulled up – initially attracting attention by stopping abruptly close by. The sole occupant then drove forward and stopped right alongside the constable who was standing by the driver's door of the patrol car. The driver of the station wagon raised a .223 rifle from inside his vehicle and fired one shot through the passenger's window at the constable. He was hit in the abdominal area, and the bullet wedged in his spine. He managed to call for assistance on his mobile radio as he dropped to the ground.

The offender then drove up the road, turned and came back. He stopped about 10 metres away from the constable and fired two more shots at him and a neighbour who had come to offer assistance. The shots missed, and hit the patrol car. The offender then sped off. Constable McKibbin died 45 minutes after being shot, en-route to Hastings Memorial Hospital. McKibbin was 25 years old and had been in the police for only 3 years. He was survived by his partner, and 20-month old son. The realisation of their most horrific nightmare had come true.

Within an hour of the event, the first media reports came in. The Police had obtained a description of the vehicle and driver involved, and at approximately 6.45 pm that evening, the Ford Falcon station wagon was located in the Raukawa Valley, south-west of Hastings. One of the last people to have been in possession of the vehicle was Terence

Thompson – a 42 year-old male with experience in army training, firearms and bush skills.

An intensive manhunt began and included the use of Police, Army and civilian helicopters, the Armed Defenders Squad, the Special Tactics Group and numerous police staff. At the height of the search, 95 people were involved.

In the ensuing weeks, an unidentified person, thought to be Thompson, was sighted in Gwavas Forest, approximately 12 kilometres from the Raukawa Valley and a positive sighting of Thompson was made in the Hastings suburb on Mayfair on 26 May. His hair was now longer and he had grown a full beard.

On the afternoon of 24 June, the sighting of a person, thought to be Thompson was reported by a member of the public in an orchard in Havelock North. The orchard was cordoned off, and at approximately 5.15 pm, Thompson was located, preparing a meal. He was confronted, and a single shot was fired by police, fatally wounding Thompson. He had been on the run for 65 days. The Police later confirmed that they had intended to charge Terence Thompson with the murder of Constable McKibbin.

No motive has ever been established for the slaying of Constable McKibbin.

Walker, T. (1996).

Results

Analyses

The statistical package SPSS for Windows V10.0 was used to examine each of the research questions. An alpha level of .05 was set. Two-tailed p values are reported for probability levels lower than .05.

Descriptive Findings

Sample Description

Summaries of demographic and police service information for the present sample are provided in Tables 3 and 4. The present sample consisted of 68 participants of whom 46 were sworn staff members, 5 non-sworn members, 7 members who had since left, and 10 partners of both sworn and non-sworn staff members. The majority (41) of the participants were male, 15 were female and 12 did not specify their gender. The distribution of gender within the sample reflects the traditional male dominance in the organisation, and is similar to the distribution for the New Zealand police in general: 16 % of sworn staff in the sample were female, compared to 15.3 % in the New Zealand Police overall (New Zealand Police, 1998). Ages ranged from 28 to 55 years, with an average of 39 ($M= 38.70$, $SD= 7.30$), which also reflected the average age (35 years) of staff in the New Zealand Police (New Zealand Police, 1998). Average length of service was 15 years, with a range of six to 35 years.

Table 3

Summary of 'Gender', 'Age', 'Marital Status' and 'Education'.

Variable	n	Percentage
Gender	56	
Male	41	73.0
Female	15	27.0
Age	55	($M=38.70$)
21 – 31	4	7.0
32 – 41	34	62.0
42 – 51	15	27.0
52 – 62	2	4.0
Marital Status	56	
Single	2	4.0
De facto Relationship	7	13.0
Married	44	79.0
Separated/Divorced	3	5.0
Education	56	
No School Qualifications	1	2.0
School Certificate	8	15.0
University Entrance	21	38.0
Trade Cert., Prof. Cert., Diploma	16	29.0
University Degree/Diploma	10	17.0

Table 4

Summary of 'Police Status' and 'Length of Service'.

Variable	n	Percentage
Status	N = 68	
Sworn Staff Members	46	79.0
Non-sworn Staff Members	5	9.0
Members Since Left	7	12.0
Partners	10	15.0
Length of Service	54	($M= 15.0$)
1 – 10 years	20	37.0
11 – 20	22	41.0
21 – 30	9	17.0
31 – 38	3	5.0

Impact of the Event

An examination of frequencies indicated that all respondents believed the event had some personal impact on them. Sworn members reported the most substantial effects compared to the rest of the sample ($M= 3.02$, $SD= .80$), followed by partners ($M= 2.56$, $SD= 1.01$). The majority of respondents (35 %, $N= 24$) perceived the event to have had “considerable effect” on them, but 27 % ($N= 18$) of the sample reported it had “tremendous effect”.

Debriefing

The number of respondents who had received a trauma policy debriefing was 16 (24 %). 12 (18 %) had attended a group debriefing, 8 (12 %) had seen a psychologist individually, and 4 respondents (6 %) had done both. Thus, 76 % ($N= 52$) of the sample were not

involved in a debriefing. All members who have since left the New Zealand Police ($N=7$) did not receive a trauma policy debriefing. Twenty six percent of sworn members and 20 % of non-sworn members received a debriefing.

The questions relating to the helpfulness of debriefing were applicable to a small percentage of respondents only ($N=16$), as the majority had not received a trauma policy debriefing. All respondents who did receive debriefing found it helpful. Forty-two percent ($N=5$) of recipients of group debriefing found it considerably helpful, whereas 38 % ($N=3$) of recipients of individual debriefing rated it moderately helpful and 13 % ($N=1$) rated it extremely helpful. Respondents were also asked to note why they perceived debriefing to be helpful. Respondents reported: that debriefing provided an environment in which to discuss the incident: “I could talk about the shooting and the impact on my life and family”, it was a way to offer support: “it was (also) good to be able to offer support to these other colleagues”, and that debriefing helped normalise their feelings: “it should me that what I was thinking and feeling was the same ... to what the majority of members felt”, “it helped me understand how others were feeling and helped me open up”.

Outcome Variables

The mean score on the IES-R was 25.49 ($SD=16.75$, $N=68$) with a maximum of 64. Partners ($N=10$) exhibited the highest mean score ($M=30.80$, $SD=23.14$), followed by sworn staff members ($M=28.04$, $SD=14.66$, $N=46$), members who had since left ($M=12.00$, $SD=13.84$, $N=7$), and non-sworn staff members ($M=10.20$, $SD=5.67$, $N=5$).

The scores on the GHQ-12 ranged from 10 to 32, with a mean score of 14.93 ($N=68$; $SD=4.05$). The four categories of respondents reported very similar means; partners 16.20 ($SD=3.94$, $N=10$), sworn staff members 14.85 ($SD=3.94$, $N=46$), non-sworn staff 14.40 ($SD=3.36$, $N=5$), and members since left 14.00 ($SD=4.12$, $N=7$). The mean score on the PILL was 28.16 ($SD=25.00$, $N=68$). Partners ($N=10$) reported the highest mean of the four groups ($M=41.90$, $SD=36.37$). Means, standard deviations and range for all three outcome variables are shown in Table 5.

Table 5

Means, Standard Deviations and Range for 'IES-R', 'GHQ-12' and 'PILL'.

Variable	N	Means	SD	Range
IES total	68	25.49	16.75	0 - 64
intrusion	68	8.99	5.73	0 - 23
avoidance	68	9.21	6.60	0 - 23
hyperarousal	68	5.54	4.66	0 - 19
GHQ-12	68	14.93	4.05	10 - 32
PILL	68	28.16	25.00	0 - 99

Control Variables

Scores on the Caplan Social Support scale ranged from 6 to 54, out of a possible 60, with an average of 37.71 ($N=63$, $SD=9.35$). Cross-tabulations were performed to ascertain the most abundant source of social support. Across all four groups of respondents, one's spouse, relatives or friends provided the most social support, compared to supervisors and work colleagues ($M=16.02$, $SD=3.44$, $N=62$), and this reached statistical significance.

On average, respondents had experienced an additional five traumatic events, other than the incident in question ($N=68$, $SD=2.66$). Cross-tabulations were calculated to determine the means across the three groups of respondents. Members who had since left the police had experienced significantly more traumatic incidents in comparison to sworn and non sworn staff members, with a mean number of 6.00 ($SD=3.35$, $N=7$).

In addition to the 15 statements comprising the traumatic stress schedule, respondents were asked to note any other traumatic incidents they had experienced. One respondent reported: "fingerprinting headless bodies". A second respondent reported: "picking up

brains from a person hit by a train”. Another noted: “(I was) first on scene at police helicopter crash. Was at dinner with sergeant (killed) and his wife two nights earlier, and a fourth officer reported a “women dying at a crash scene while doing mouth-to-mouth resuscitation”.

The scores on the measure of organisational stress, the police stress schedule, ranged from 0.16 to 2.45, from a potential maximum of 3.0, with a mean of 1.54 ($SD = 5.0$, $N = 54$). Particular sources of organisational stress noted by respondents pertained to supervisors, such as, working with dishonest and manipulating supervisors, conflicts with supervisors and dishonest, incompetent supervisors. Other sources of organisational stress related to the administration of the trauma policy, such as the length of time taken to receive a debriefing. Means, standard deviations and range for all control variables are shown in Table 6.

Table 6
Means, Standard Deviations and Range for Control Variables.

Variable	n	Mean	SD	Range
Social Support				
Total	63	37.71	9.35	6 – 54
Supervisor	62	11.44	3.92	4 - 19
Colleagues	61	11.05	3.49	4 – 18
Spouse	62	16.02	3.44	6 – 20
Other Trauma	68	5.25	2.66	0 – 13
Organisational Stress	54	1.54	5.00	0.16 – 2.45

Preliminary Data Analysis

Preceding the main analyses, the data was screened to assess missing values, outliers and the fit of variable distributions to the specific assumptions of multiple regression. Most missing data pertained to partners and was concentrated in the demographic variables, social support and organisational stress variables. Partners were excluded from the main analysis as they were not required to supply demographic data, and two of the three social support scales and the organisational stress variables were irrelevant to them. All other missing data appeared to be randomly distributed across the independent and dependent variables, once partners had been removed. Accordingly, the group mean for each item was substituted.

An analysis of the z scores and the associated residual scatterplots on each of the three dependent variables revealed one multivariate outlier ($z = 4.78$) on the GHQ-12. A visual examination of the data showed that this case was also a source of considerable missing data. However, the outlier was retained in the analyses as this case provided valuable data on the other dependent variables, and its influence was lessened through variable transformation.

Following the analysis of missing data and outliers, the specific assumptions of multiple regression were assessed. Univariate descriptive statistics showed the variables to be normally distributed, except for the PILL and GHQ-12. The PILL was positively skewed (skewness = 3.49, kurtosis = 0.67) and the GHQ-12 showed negative skewness and positive kurtosis (skewness = -7.02, kurtosis = 13.93). These were confirmed with the associated normal probability plots. To be used as dependent variables in multiple regression, both variables were transformed. The PILL was transformed by square root (skewness = 0.94, kurtosis = -0.89). The GHQ-12 was first reflected to convert the skewness to positive, and then transformed by inversion (skewness = -0.65, kurtosis = 3.34).

Linearity was assessed from scatterplots of standardised residuals against predicted values between variables. A visual analysis of the scatterplot between the PILL and debriefing revealed a concentration of scores at low values of the dependent variable, indicating non-linearity. The examination of residual scatterplots also showed heteroscedasticity regarding the PILL and GHQ-12. However, the aforementioned transformations served to improve both linearity and homoscedasticity. There was no evidence of multicollinearity or singularity in these data.

Multiple regression requires dichotomous variables, but the 'respondent status' and 'marital status' variables both consisted of more than two levels. Dummy variables were therefore created to recode both into dichotomous variables. Respondent status was divided into: (a) current staff members (sworn staff members and non-sworn staff members) ($N= 51$); and (b) members since left ($N= 7$). Marital status was divided into: (a) 'partners' (married respondents and those in a de facto relationship) ($N= 51$); and (b) 'singles' (single, separated or divorced, and widowed respondents) ($N= 5$).

Research Question Analysis

Hierarchical multiple regression analysis was employed to gain insight into the first two research questions: first, the influence of debriefing on post-traumatic stress symptoms and second, the influence of debriefing on general physical health. The control block of variables was entered step one, and then the debriefing variable at step two, to assess what it adds to the prediction over and above the control variables.

Debriefing and Post-traumatic Stress Symptoms

The first research goal was to assess the effect of debriefing on symptoms of post-traumatic stress. Bivariate correlations indicated significant relationships between other traumatic experiences and the IES-R and between respondent status and the IES-R (Table 7). Accordingly, a hierarchical regression equation was performed to statistically control

for the contribution to the variance on the IES-R of other traumatic experiences and respondent status.

Table 7

Simple Pearsons r Correlations Between IES-R, GHQ-12 and PILL and Control Variables

	IES-R	GHQ-12	PILL
Social Support	.02	.16	-.29*
Other Trauma	.28*	-.03	.35**
Organisational Stress	-.06	-.00	-.05
Age	-.26	-.14	.05
Gender	-.09	-.03	-.11
Status	-.38**	-.24	-.14
Length of Service	-.24	.15	.12
Education	.08	-.08	-.06
Marital Status	.03	-.08	.14

* $p < .01$ ** $p < .001$

Step 1.

The first block of variables to be entered into the equation comprised other traumatic experiences and respondent status. The results of this step are presented in Table 8. The standardised beta coefficient (*beta*) is provided, as is the total variance accounted for by this step of the equation (Adjusted R^2). R^2 was significantly different from zero ($R^2 = .24$), $F(2, 55) = 8.61$, $p < .001$). Together, other traumatic experiences and status accounted for 21 % of variance (Adjusted R^2) on the IES-R.

Both variables had a significant impact on symptoms of post-traumatic stress. More traumatic experiences were associated with higher IES-R scores ($Beta = .27$). Current

staff members had higher scores on the IES-R, compared to members who had since left: current police membership was associated with higher IES-R scores ($Beta = .40$).

Step 2.

The debriefing variable was then entered into the equation and its effect on post-traumatic stress symptoms assessed after the variance attributable to other trauma and status were accounted for. These results are also presented in Table 8. The same statistics as for step one are provided, as well as the additional variance explained by debriefing (R^2 change).

Table 8

Hierarchical Multiple Regression Analysis of IES scores on ‘Other Trauma’, ‘Respondent Status’ and ‘Debriefing’ ($N = 58$).

Variable	B	SE B	β
Step 1			
Other Trauma	1.58	0.69	0.27*
Respondent Status	9.04	2.64	0.40***
Step 2			
Other Trauma	1.59	0.67	0.27*
Respondent Status	7.85	2.59	0.35**
Debriefing	9.73	4.22	0.27*

Note. Adjusted $R^2 = .21$ *** for Step 1.

Adjusted $R^2 = .27$ *, R^2 change = .07* for Step 2.

* $p < .05$ ** $p < .01$ *** $p < .001$

R^2 was again significant ($R^2 = .31$, $F(3, 54) = 7.97$, $p < .05$). Debriefing accounted for an additional 7 % in unique variance (R^2 change), whilst the total variance accounted for

by the whole model was 29 % (Adjusted R^2). Each of the control variables retained their significant relationships with IES-R scores: (other traumatic experiences $Beta = .27$; status $Beta = .35$). Debriefing also had a significant positive impact on the IES-R: the provision of debriefing was associated with higher scores on the IES-R ($Beta = .27$).

Debriefing and Physical Health

The second research goal was to examine the effect of debriefing on physical health status. Bivariate correlations showed other traumatic experiences and social support to be significantly correlated with the PILL (see table 7), thus a hierarchical regression analysis was performed to control for the effects of these two variables.

Step 1.

The first block of variables to be entered into the equation comprised other traumatic experiences and social support. Results are displayed in Table 9. The standardised beta coefficient ($Beta$) is provided, as is the total variance explained by this step of the equation (Adjusted R^2). R^2 was significantly different from zero ($R^2 = .23$, $F(2,55) = 8.20$, $p < .01$). Together, other traumas and social support accounted for 20 % of variance on the PILL (Adjusted R^2). Other traumatic experiences showed the greatest impact on the PILL ($Beta = .40$): more traumatic experiences were associated with higher PILL scores, indicating poorer physical health. Social support had a negative impact on PILL scores ($Beta = -.37$); greater social support was associated with lower PILL scores.

Step 2.

Step 1 of the regression was followed by the entry of the debriefing variable at Step 2, and its effect on PILL scores assessed with the effects of other trauma and social support controlled for. These results are also presented in Table 9. However, no statistically significant findings were obtained. Whether debriefing was received or not had no significant effect on physical health. Other traumatic experiences and social support both retained their significant relationships with PILL scores and the relationships strengthened, with increases in $Beta$ to .41 and -.39 respectively.

Table 9

Hierarchical Multiple Regression Analysis of PILL scores on ‘Social Support’, ‘Other Trauma’ and ‘Debriefing’ ($N= 58$).

Variable	B	SE B	β
Step 1			
Social Support	-8.82	0.03	-0.37**
Other Trauma	0.34	0.10	0.40**
Step 2			
Social Support	-9.37	0.03	-0.39**
Other Trauma	0.34	0.10	0.41***
Debriefing	1.01	0.61	0.20

Note. Adjusted $R^2 = .20$ *** for Step 1.

Adjusted $R^2 = .23$, R^2 change = .04 for Step 2.

** $p < .01$ *** $p < .001$

Debriefing and General Psychological Health

The third research goal was to assess the influence of debriefing on general psychological health. No other variables correlated with the GHQ-12, so a bivariate correlation was performed. Debriefing correlated negatively with general psychological health ($r = -0.93$): respondents who did receive debriefing had lower scores on the GHQ-12, but this did not reach statistical significance.

Post-hoc Analysis

Impact of the Event

Of the relationships suggested by the three main research questions, that between debriefing and scores on the IES-R was the only one to reach statistical significance, yet a considerable amount of variance remained unaccounted for. Consequently, the relationships between the impact of the event and the three dependent variables were examined to assess whether any additional variance was accounted for. Results are displayed in Table 10.

Table 10

Hierarchical Multiple Regression Analysis of IES Scores on 'Impact', 'Other Trauma', 'Respondent Status' and 'Debriefing' (N = 58).

Variable	B	SE B	β
Step 1			
Impact	8.20	1.78	.50***
Other Trauma	1.37	.60	.23*
Status	5.26	2.40	.24*
Step 2			
Impact	7.56	1.79	.46***
Other Trauma	1.39	.59	.24*
Status	4.78	2.38	.21*
Debriefing	6.38	3.77	.18

Note. Adjusted $R^2 = .42$ *** for Step 1.

Adjusted $R^2 = .44$, R^2 change = .03 for Step 2.

* $p < .05$

*** $p < .001$

The entry of the impact variable, in addition to other trauma and respondent status, at step 1 of the regression equation accounted for 42 % of variance on the IES-R (Adjusted $R^2 = .42$) $F(3, 54) = 14.91, p < .001$). Impact had the greatest effect on the IES-R ($Beta = .50$): worse impact was associated with higher IES-R scores. Other traumatic experiences and respondent status both retained their significant relationships with IES-R scores. The entry of the debriefing variable at Step 2 of the regression equation resulted in no statistically significant change.

This trend was also obtained with PILL scores. The entry of the impact variable, in addition to social support and other trauma at step 1 of the regression equation accounted for 31 % of variance on PILL scores (Adjusted R^2), $F(3, 54) = 9.41, p < .001$ (see Table 11). Impact was also significantly associated with higher scores on the PILL ($Beta = .34$). The entry of the debriefing variable at Step 2 of the regression equation resulted in no statistically significant findings.

Table 11

Hierarchical Multiple Regression Analysis of PILL Scores on 'Impact', 'Social Support', 'Other Trauma' and 'Debriefing' ($N= 58$).

Variable	B	SE B	β
Step 1			
Impact	.80	.26	.34**
Social Support	-8.99	.03	-.38**
Other Trauma	.32	.10	.38**
Step 2			
Impact	.73	.27	.31**
Social Support	-9.29	.03	-.39***
Other Trauma	.32	.10	.38***
Debriefing	.59	.60	.11

Note. Adjusted $R^2 = .31$ *** for Step 1.

Adjusted $R^2 = .31$, R^2 change = .01 for Step 2.

** $p < .01$ *** $p < .001$

The Type of Debriefing

The New Zealand Police Trauma Policy provides for both group and individual debriefings and respondents perceived both to be similarly helpful. However, a key aspect of group debriefing often mentioned by respondents in the present study was the validation of one's feelings. For example, "it showed me that what I was thinking and feeling was the same as or comparable to what the majority of members felt." Hence, it was decided to assess the effect of the specific type of debriefing against outcomes.

The group of respondents who received group debriefing ($N=9$) had higher scores on the IES-R ($M=29.78$, $SD=13.91$) and PILL ($M=28.56$, $SD=18.43$), compared to the rest of the sample (IES-R: $M=24.19$, $SD=14.86$, $N=52$), (PILL: $M=25.29$, $SD=22.33$, $N=52$) and similar scores on the GHQ-12 ($M=17.00$, $SD=2.55$) compared to the rest of the sample ($M=17.90$, $SD=2.06$, $N=52$). A t-test was performed to assess the significance of these differences, but the mean differences between recipients of group debriefing and the rest of the sample did not reach statistical significance.

Partners

Owing to the impact the incident had on partners, and their role in providing social support, the outcome scores of partners were analysed. Partners reported a mean score of 30.80 on the IES-R ($N=10$, $SD=8.10$). Their overall mean score on the GHQ-12 was 1.35 ($N=10$, $SD=.42$) and partners reported a mean score of 41.90 ($N=10$, $SD=36.37$) on the PILL. Of the four categories of respondents, the means of partners are the highest overall on each of the three outcome measures, although the differences did not reach statistical significance.

Discussion

Summary of the Results

The main purpose of the present study was to evaluate the effectiveness of the New Zealand Trauma Policy in the mitigation of traumatic stress reactions. The relationship between debriefing and PTSD, physical effects, and psychological effects of trauma were investigated in a sample of New Zealand Police and their partners, who had been involved in the purposeful shooting of a police officer. The mitigating effects of social support, other traumatic experiences, and organisational stress were controlled for, as were various demographic variables.

The first research objective was to examine the relationship between debriefing and the development of PTSD. The results indicate that debriefing has no long-term beneficial effect on psychiatric morbidity, and may instead exacerbate symptoms of PTSD. Debriefing was associated with significantly higher PTSD symptoms. However, debriefing was not well implemented. Seventy-eight percent of respondents did not receive debriefing, even though it was mandatory for all members to receive it under the trauma policy.

The second research objective was to examine the relationship between debriefing and physical traumatic stress reactions, but no statistically significant findings were obtained in relation to physical symptoms. The third research objective was to examine the relationship between debriefing and psychological symptoms of traumatic stress, but no significant relationship was obtained.

These findings suggest that debriefing has an adverse effect on symptoms of stress reactivity in the long-term, and no preventative effect on the development of post-traumatic stress symptoms. These findings support the conclusions reached by other evaluations of debriefing. Carlier et al. (1998) found that police officers who had

received debriefing displayed significantly more post-traumatic symptoms compared to non-debriefed police officers. Doctor et al. (1994) reported greater psychiatric morbidity in police officers who had received debriefing, compared to officers who had not. Griffiths and Watts (1992) report similar results in regard to emergency workers. A Cochrane systematic review of debriefing also reported an increased risk of PTSD in debriefed individuals (Wessely et al. 1999), although the studies reviewed were restricted to single, individual debriefing sessions and did not address police or emergency personnel.

A subsidiary goal of the present study was to assess perceptions of debriefing by those who received it, and the relationship between perceptions and objective evidence of debriefing effectiveness. In the present sample, recipients of debriefing did perceive it as beneficial, and positive perceptions were negatively associated with objective assessments of debriefing effectiveness.

These results support the findings of a number of studies that the relationship between subjective and objective assessments of debriefing is discrepant. Overall, recipients perceived debriefing positively, as many other researchers have found (e.g. Bisson et al. 1997; Deahl et al. 1994; Griffiths & Watts, 1992; Small et al. 2000), but objective measurements of debriefing did not find positive results. Even so, a positive perception of debriefing does strengthen its face validity (Raphael & Wilson, 2000). However, when considering the long term, objective effects on psychological health, the present results indicate that debriefing may be harmful to police officers.

There are several possible explanations for the finding that debriefing was associated with greater PTSD symptoms approximately 5 years following a traumatic event. These relate to: procedural and structural aspects of police work, lack of ongoing support, the pathogenic-orientation of debriefing and the research design.

One possibility that has been mentioned by a psychologist working with the New Zealand Police is the difficulty of finding a time when all members involved in an incident can

meet for a debriefing (Ford, 1993). This problem was also highlighted by Stephens (1996), and may explain why only 22 % of respondents received debriefing. As one respondent noted: "The debriefing was held while I was on duty ... that was the greatest fault". Consequently, group sizes were small, and the group who received debriefing may have been biased in some way. For example, the particular shift they were working may have happened to coincide with the debriefing, raising the possibility that the results obtained may not be an accurate reflection of debriefing effectiveness.

A second explanation as to why debriefing may have exacerbated post-traumatic outcomes concerns the debriefer. As noted by various authors (e.g. Evans, Coman & Stanley, 1992; Follette, Polusny & Milbeck, 1994; Stephens, 1996) professionals who conduct the debriefings must be sensitive to the needs of the group, otherwise they may do more harm than good. Berah, Jones and Valent (1984) provide evidence that both the physical and mental health of mental health professionals can be affected when working with disaster victims and endorse the importance of 'debriefing the debriefers'. The present results therefore may be due to the debriefers, rather than the actual debriefing process.

A third possibility is the exclusive position of debriefing within the trauma policy. Debriefing represents a stand-alone intervention in the prevention of post-traumatic reactions. However, it is widely documented that stress interventions should not be used in isolation, but should be used as part of a wider stress prevention program to achieve maximal results (e.g. Flannery, Hanson, Penk, Flannery & Gallagher, 1995; J. T. Mitchell, 1983; Raphael, 1986; Tehrani, 1995). For example, the importance of pre-trauma training for police officers is recognised in the creation of realistic incident expectations (Bisson et al. 1997; Deahl, 1998; Reiser & Geiger, 1984; Sewell, 1993). Family intervention techniques, including training and debriefing, are also regarded as valuable (Everly & Mitchell, 1997; Flannery et al. 1995). Indeed, present results illustrate that traumatic incidents can also affect family members.

A related possibility is the lack of ongoing support. In relation to a post-trauma recovery period of months or even years, debriefing was a relatively brief intervention, provided during the initial stages of recovery (Miller, 1996). However, several events are encountered in the post-event period that may be very traumatic for members, such as anniversaries and memorial services. But as debriefing is mandatory only in the early stages of recovery, its capacity to ensure long term preservation of skills and behaviours learned is limited. As such, its ability to assist recovery over the long term is reduced.

This explanation is supported by findings that debriefing has a positive effect on traumatic symptoms in the short term, but an adverse effect at long term follow ups (Carlier et al. 1998; McFarlane, 1988; Z. Soloman & Behbenishty, 1986). The present research assessed the effectiveness of debriefing approximately five years after the incident in question, so debriefing may have had a positive influence on traumatic symptoms earlier in the post-incident recovery period. The New Zealand Trauma Policy does provide for voluntary referrals and statistics indicate that 71 % of referrals are voluntary (New Zealand Police, 1998). But only 14 % of present respondents sought debriefing on their own accord. The 'toughness' ethic predominant in the New Zealand Police at the time of the debriefings (Stephens, Long & Miller, 1997) may have impeded voluntary referrals. Accordingly, a number of researchers suggest the provision of formalised follow-up sessions over a prolonged period rather than simply short-term sessions (Bisson & Deahl, 1994; Busuttil & Busuttil, 1995; Dyregrov, 1999).

A fifth possible explanation for the exacerbation of post-traumatic symptoms concerns the pathogenic orientation of debriefing. Debriefing often involves intense, imaginary re-exposure to the traumatic event in question. However, this can traumatise individuals further and exacerbate symptoms, impeding emotional processing of the traumatic experience, which is referred to as 'secondary traumatising' (Symonds, 1980, cited by Raphael et al. 1995). In this manner, debriefing reflects exposure therapy as used for the treatment of PTSD. Exposure therapy rests on the assumption that initial exacerbation of symptoms is lessened as habituation occurs over time (Wessely et al. 1999). However, only 21 % of respondents who received debriefing received more than one contact. Thus,

habituation may not have occurred in the present study unless individuals engaged in additional self-directed exposure.

An additional possibility that relates to the pathogenic orientation of debriefing is the 'medicalisation' of normal responses to stress. Debriefing is based in the medical model of science (Stuhlmiller & Dunning, 2000). A traumatic event is deemed to produce medical conditions ('symptoms') necessitating psychological intervention ('treatment') (Raphael et al. 1995). Responses are assumed to be consistent across time and place and generalisable across populations (Stuhlmiller & Dunning, 2000). That many different sequelae can emanate from traumatic experience is not recognised. Emotionally aroused people can also be easily suggestible to the idea that intervention is essential following specific types of traumatic events (D. Brown, 2000; Dyregrov, 1999; Stuhlmiller & Dunning, 2000), so the expectation of a pathological response may be engendered. But the outcomes of exposure are not inevitably destructive. Exposure can produce positive outcomes (Lyons, 1991; Paton, 1997). Traumatic situations are self-defined and so do not transcend people in a homogeneous way. Tedeschi and Calhoun (1996) for example, have noted categories of perceived benefits identified by individuals following traumatic experience, including: positive growth benefits, identification of meaning and connection with others. Positive outcomes are rarely considered, as they do not coincide with the medical model. Thus, debriefing may be presented as a means of dealing with inevitable negative emotions and may undermine any positive feelings.

In this manner, debriefing may break down beneficial defence mechanisms. Janik (1992) suggests that the use of defences, such as denial, in traumatic situations allow emergency personnel to cope with the stresses of the work, and that it is only when the defence becomes rigid or inappropriately applied that the individual is in danger of disorder. For example, Taylor and Frazer (1984) reported that body recovery workers involved in a major air disaster, the least stressed utilised denial, such as dehumanising the bodies. But a pathogenically orientated debriefing session disregards natural coping strategies and personnel are sensitised toward traumatic reactions.

A further possibility regards the mandatory nature of debriefing in the trauma policy. This also stems from the pathogenic conceptualisation of traumatic experiences. After the deliberate slaying of an officer, all members were obligated to attend a debriefing session as a matter of policy. Present findings do not reflect this, but nevertheless, enforced debriefing can bring about passive participation and resentment in individuals (Bisson & Deahl, 1994; Deahl, 2000; Flannery et al. 1991). An example of enforced intervention is a study concerning Americans held hostage in Iran in the late 1970s (Rahe, Karson, Howard, Rubin & Poland, 1990). Many hostages wanted to return home immediately, but first they were required to spend a period in seclusion and be gradually reintegrated into freedom. Although most of the hostages admitted their immediate desire to return home was overly optimistic, the authors made no comment regarding the feelings of those forced to undergo this operation against their will.

In accordance with the aforementioned effects of mandatory debriefing, some have suggested that debriefing can be mandatory, but not compulsory (e.g. Black, 2001). Other researchers (e.g. J. T. Mitchell & Everly, 1995; Palmer, 2000) have suggested that debriefing only be directed toward those who are identified as needing it, or who request it.

The present results could also be due to the research design. The study considered the effectiveness of debriefing following a specific traumatic event that directly involved members from one geographical region of the New Zealand Police only. Consequently, the sample was restricted to the members of this region at the time of the incident, and was limited in size. Inevitably, group sizes were also small. For instance, there were only 7 members who had since left the police in the sample, and only 5 non-sworn staff members. As a result of the group sizes, the present results may be biased because of some factor common to the small number who did receive debriefing. The statistical analyses show that the results are not due to chance, but there is the possibility that the debriefed group was related in some way, such as they were all working the same shift.

A final possibility, which also concerns the research design, is that both group and individual debriefings were used. Thus, it is possible that the type of debriefing could have confounded results. Indeed, post hoc analysis showed group debriefing to be associated with significantly worse PTSD symptoms than individual debriefing. Therefore, group debriefing only may be associated with PTSD.

Limitations of the Present Study

Unmeasured Variables

One limitation of the study is that a number of other variables known to influence post-traumatic response and recovery were not included in the present research. For example, an individual's pre-existing psychiatric morbidity (Kenardy & Carr, 2000; Smith & North, 1993), personality and pre-trauma coping abilities. These variables are included in the comprehensive ecological view of trauma and trauma recovery presented by Harvey (1996) and are proposed to interact with various event and environmental factors to determine the pattern of response and recovery. Person-related variables also form a significant part of post-traumatic diagnosis. The absence of these variables could explain why a large amount of variance on the IES-R and PILL was not accounted for after controlling for the influence of other traumas and status, and other traumas and social support, respectively. The post hoc control of personal impact of the incident still left a sizable proportion of variance not accounted for. The respondents' personality and premorbid psychiatric states could account for a portion of this, particularly given the importance of person-related variables in the clinical diagnosis of traumatic reactions (Harvey, 1996).

Scoring

A second limitation of the present research was the manner in which the GHQ-12 was scored. In addition to detecting minor psychiatric disorder, the GHQ-12 was designed to detect changes in normal functioning (Hardy et al. 1999). Whilst the aim of the present study was to detect minor psychiatric disorders, the weights utilised reflected the latter

usage of the GHQ-12 instead. Many respondents answered with 'same as usual', which indicated their functioning had not changed over the past month, rather than indicating their actual present psychiatric state. This may explain why the GHQ-12 did not correlate with the IES-R, or any other variables, as similar versions have, such as the GHQ-28, in other studies (e.g. Deahl et al. 1994).

Study Design

A final caveat concerns the research design. The present study was a comparison study. Members of the New Zealand Police involved in the shooting of Constable Glenn McKibbin were compared based on whether or not debriefing was received. There was no random allocation to intervention or control groups – an aspect considered essential to assess the true effectiveness of debriefing (e.g. Raphael et al. 1995; Wessely et al. 1999). The reasons behind debriefing attendance may be of key importance and produce considerable sample bias, and ultimately influence the outcome. However, a strength of the present study is that it reflects every-day practice of debriefing, thus enhancing face validity.

Future Research

Analysis of Change

Given the duration and complexity of the post-traumatic recovery context, longitudinal research is pertinent. Longitudinal designed research involves certain implications that future research could address.

Firstly, longitudinal research implies the analysis of change. Indeed, PTSD is not a static condition. It is a disorder that progresses and changes over time. It would therefore be useful for future research to involve multiple waves of data collection on a regular basis, to assess the changes in PTSD with the passage of time. Willett (1989) recommends that more than two waves of data be collected, as studies that involve only two data collections run the risk that observations are made when relations may not be optimal.

Secondly, longitudinal research necessitates the comparison of data against baseline levels of psychiatric morbidity. For example, post-traumatic symptoms could be evaluated against norms obtained from occupational members who have not been exposed to traumatic events (Paton & Smith, 1995). Alternately, each member's individual level of traumatic symptomology could be measured upon joining the police and assessed at regular intervals thereafter, to provide baseline measures of psychiatric morbidity.

Timing and Organisation of Intervention

Present results indicate that debriefing is only received by a small majority of members, despite the mandatory nature of the trauma policy. Thus, there is a need for additional exploration into this issue, regarding for example, the timing and organisation of debriefing sessions. One respondent suggested that a period of 'time out' be given to all members involved in a traumatic incident. This could then provide an opportunity for debriefings to be conducted when all the members involved are off-duty.

Peer Support

The results of the present study indicate possible difficulties regarding the timing of debriefing, the debriefers and the pathogenic orientation of debriefing. They also show the importance of support from work colleagues. Work colleagues provided only a slightly lower level of social support than supervisors. Future research therefore, should give further consideration to other interventions, such as peer support. The peer support model is used in conjunction with debriefing, and endorses the provision of emotional support from trained colleagues. Peer support members are not professional counsellors, but are fellow officers willing to be available to their peers when the need arises. The peer support model is advantageous as support is available at all times, rather than being constrained to a particular incident. The pathogenic orientation of debriefing is discarded, as members are not required to abandon healthy defences; nor are unwilling members exposed to the traumatic stories of others and education is provided about normal stress reactions, which are framed as positive coping resources rather than pathology. Furthermore, peer support programs are cost-effective (Dunning, 1991), and

are reportedly very helpful in the aftermath of traumatic incidents (Britt, 1991; Fuller, 1991; McMains, 1991; Schmuckler, 1991). Approaches to the provision and management of peer support groups are described in more detail in Reese and Goldstein (1986), Reese and Horn (1988) and Paton (1994a).

Other Variables

In addition, there is a need to further investigate the salutogenic, or 'positive' approach to traumatic stress. Future research could address resiliency variables such as individual coping strategies, adaptability, self-efficacy, tolerance for ambiguity and locus of control, and investigate their relationship with psychiatric morbidity. A broader range of individual factors could be considered also, such as past psychiatric history, recent life stresses and ethnicity.

Other People

The role of significant others, such as an officer's partner and family, was addressed in the present study, but deserves further attention. Results reaffirm that partners are an important source of social support, and indicate that traumatic events affect them also. Post-hoc analysis showed that partners reported the highest scores on each of the three outcome measures. Future research could give further attention to the impact of traumatic events on partners and examine outcomes such as psychological morbidity and implications for the social support they give their partners. The association between multiple traumas and relationship factors, such as marital problems, divorce, and separation, could also be addressed.

In addition to partners, non-sworn staff members and former members were also briefly considered. Present results indicate that traumatic incidents also impact on these two groups of people: 87 % of non-sworn staff members felt the event had considerable impact on them, and 60 % of members since left felt the event had minimal effect of them. These findings warrant further attention. For instance, future research could investigate quantitative and qualitative differences in impact between the four groups of respondents compared to sworn staff members.

Future research could also address the relationship between perceived impact and disengagement. Members since left reported the third highest scores on the three outcome measures, and the majority reported the event had only minimal impact on them, and psychological factors are associated with 73 % of disengagements from the New Zealand Police (New Zealand Police, 1998).

Outcome Variables

Finally, future research also needs to utilise a broader range of outcome variables. According to Deahl (2000) a common problem in debriefing research is the narrow range of outcome measures used. Some studies focus on PTSD symptoms (e.g. Bisson et al. 1997; Rose et al. 1999) and the present study was only a little more general, focusing on psychological and physical health. However, various behaviour sequelae, adjustment disorders and personality changes are all recognised following trauma, although they are much less understood. Thus, future research could investigate the efficacy of debriefing in the prevention of other trauma related outcomes, such as social and occupational dysfunction, destructive personality changes, substance abuse, in addition to psychopathology and the symptoms of PTSD.

Conclusion

The present results represent a preliminary evaluation of the New Zealand Police Trauma Policy, and resemble previous findings in the field of traumatic stress. It is apparent in this sample of New Zealand Police members that respondents who received debriefing experienced more PTSD symptoms. This suggests that debriefing exacerbates, rather than prevents psychiatric morbidity following trauma. However, findings must be viewed with caution due to the small sample size. Indeed, only 22 % of respondents received debriefing, despite a mandatory debriefing requirement following the deliberate slaying of a police officer, raising the question of issues at the procedural level.

In light of the present findings, further evaluation research is needed to establish the efficacy of debriefing. Debriefing is an example of an intervention that has come into widespread practice without an adequate research base. Indeed, this is the first evaluation of the New Zealand Trauma Policy since its introduction in 1992. Furthermore the present study included only one assessment, and given that PTSD progresses and changes over time, longitudinal studies would be useful, with regular assessment of participants. Later research could then examine issues at the procedural level of interventions, and the role of peer support. There is little point investigating ways of ensuring debriefing is received by a maximum number of participants, unless its effectiveness is determined first.

In addition, future debriefing research should give further attention to the salutogenic approach to traumatic stress, given the problems of the traditional pathogenic approach. Research should also examine individuals other than police officers, such as family members. Traumatic events impact on them considerably and given their role in providing social support, research must evaluate the efficacy of debriefing in mitigating their experience of traumatic stress symptoms. The utilisation of a wider range of outcome variables is also important, to help ensure a maximum number of individuals suffering the effects of traumatic stress receive assistance.

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Appendix A

Posttraumatic Stress Disorder (PTSD) Diagnostic Criteria (American Psychiatric Association, 2000)

Diagnostic Criteria for PTSD
(American Psychiatric Association, 2000)

- 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.
Note. In children, this may be expressed instead by disorganized or agitated behavior.
- B. The traumatic event is persistently re-experienced in one (or more) of the following ways:
- (1) recurrent and intrusive distressing recollections of the event, including images, thoughts, or perceptions.
Note. In young children, repetitive play may occur in which themes or aspects of the trauma are expressed.
 - (2) recurrent distressing dreams of the event.
Note. In children, there may be frightening dreams without recognizable content.
 - (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).
Note. In young children, trauma-specific re-enactment may occur.
 - (4) intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the trauma.

- (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.
 - (6) restricted range of affect (e.g., unable to have loving feelings).
 - (7) 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 startled 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.

Specify if:

With delayed onset: if onset of symptoms is at least 6 months after the stressor.

Appendix B

The New Zealand Police Trauma Policy

THE NEW ZEALAND POLICE TRAUMA POLICY

30 January 2001

MANUAL

**Jonathan Black
Manager: Psychological Services
HR Service Centre
WELLINGTON**

TABLE OF CONTENTS

	Page
Introduction	1
1. Guiding principle	2
2. Supporting principles	2
3. Co-ordination of support services	3
4. Provision of professional services	3
5. Duration of trauma support services	4
6. Basis of referrals	4
7. Non police referrals	7
8. Funding	8
9. Accountability	8
10. Reporting	8
11. Procedural steps	10
Appendix A	11
Appendix B	17
Appendix C	20

INTRODUCTION

This manual has been produced for use by supervisors, human resource staff, Staff Welfare Officers, and registered psychologists delivering psychological services to police members under the auspices of the New Zealand Police Trauma Policy [Trauma Policy].

All existing manuals relating to the Trauma Policy are replaced with this single reference manual, which incorporates improvements to the policy in recent years. The material within is designed to improve understanding of the application of the Trauma Policy in day to day policing, and improve the ability of the Trauma Policy to assist health management at all levels of the organisation.

The manual outlines the following:

- The background of the Trauma Policy
- The role of the Trauma Policy in the health and welfare of both sworn and non-sworn police staff, and
- The procedures by which the Trauma Policy is initiated, maintained, and funded.

The Trauma Policy provides members of police, both sworn and non-sworn, appropriate psychological support as required by the sometimes traumatic and disturbing nature of police work. Occupational stress and trauma has no respect for age, gender, ethnicity, or seniority.

Everyone has different reactions to occupational and personal experiences; reactions as diverse as our personalities, temperaments, responsibilities, and fears. For each of us our reactions are individual and unique, and the Trauma Policy is designed to assist us cope with the worst of our occupational experiences whether they occurred yesterday, last month, or whether they have accumulated over the lengths of our careers.

The Trauma Policy does not replace good management practices or personal coping skills. It is, however, a well-established and well-used tool for assisting police occupational health, as the following table demonstrates.

Referrals to Psychologists 1992-2000 - Trauma Policy	
Calendar Year	Referrals
1992	138
1993	399
1994	481
1995	670
1996	735
1997	1163
1998	1153
1999	1158
2000	1149*

* Voluntary referrals for 2000 = 73.7%
 Source: Extracted from Trauma Policy database records, Psychological Services, HR Service Centre, Wellington, 29 January 2000.

The Trauma Policy came into formal operation on 27 March 1992, following a period of informal support for staff in a variety of situations and incidents. The impact of occupational trauma has long been recognised in policing, but it has taken time for specific procedures and policy to be developed to address its impact upon Police staff. Notable incidents with well recorded effects include – Mount Erebus air crash, 1981 Springbok Tour, Lady Elizabeth II sinking, Franz Joseph helicopter crash, Fox Pine and Blue Duck air crashes, and the Aramoana massacre. By their nature these incidents attract great publicity, and while their impact is great they tend to overshadow the more day to day incidents where Police staff face psychological trauma in situations which do not attract great publicity.

While most Police members usually cope with traumatic experiences with minor effects there are times when accumulated trauma poses risks to their mental health. These risks can involve a range of adverse psychological reactions from Critical Incident reactions to Acute Stress Disorder and even the development of Post Traumatic Stress Disorder (see DSMIV). Such reactions may be precipitated by a *single* traumatic event, or by *cumulative* exposure to a number of traumatic events. The Trauma Policy is designed to assist staff work through various post-traumatic reactions and to minimise later incidence of post-traumatic disorders through the provision of psychological support services.

1. GUIDING PRINCIPLE

The guiding principle of the Trauma Policy is the provision of a *quick* response to, and *confidential* support contact between, members of Police and mental health professionals who provide such services. Support is defined as treatment and/or assessment for the purposes of treatment

2. SUPPORTING PRINCIPLES

- A.** That all information revealed by, and discussed with, police staff seen by a Practitioner is treated in accordance with the provisions of the Code of Ethics of the New Zealand Psychologists Board and the Privacy Act 1993.
- B.** That the Practitioner gives reasonable consideration to any information provided during therapeutic contact that indicates, in their professional opinion, there is an imminent likelihood of that member harming themselves or another individual. If such a likelihood exists the referring Welfare Officer or the Manager: Psychological Services is to be informed appropriately.
- C.** If in the opinion of the Practitioner, after a period of treatment whereby an informed opinion can be obtained, a member's continuing presence at his or her place/role of work would significantly exacerbate an existing post-trauma condition the referring Welfare Officer or the Manager: Psychological Services is to be informed appropriately.

3. CO-ORDINATION OF SUPPORT SERVICES

Post-trauma support services are co-ordinated by local Staff Welfare Officers acting in conjunction with the respective Districts where staff they are responsible for are employed. Support may be initiated by supervisors in *urgent* cases if welfare officers are not available, but the Welfare Officer *must* be informed of such referral at the earliest opportunity.

Co-ordination involves making contact with an approved mental health professional and arranging an appointment at an early opportunity for staff. Notification of any referral is to be made *immediately* to Psychological Services at the HR Service Centre, Wellington, using the Trauma 1 form¹.

4. PROVISION OF PROFESSIONAL SERVICES

Trauma support services are provided by approved mental health professionals (Practitioner(s) available locally. In practice these professionals are Registered Psychologists, although provision exists to use Psychiatrists in some circumstances. Selection and approval to use particular professionals is the responsibility of the Manager: Psychological Services, who will recommend suitable professionals to Staff Welfare Officers.

The services provided by Practitioners are guided by the professional protocols contained within this manual².

The use of non-approved professionals is not permitted under the Policy. Staff Welfare Officers may provide feedback and advice to Psychological Services regarding availability and performance of particular professionals used in their areas to ensure that a quality service is provided for all staff.

Approved mental health professionals will:

- have recognised qualifications and experience
- meet requisite professional and ethical standards
- have experience of Police occupational health issues
- be familiar with dealing with trauma
- provide a confidential service to all Police referrals

In some cases services will be provided in group sessions to affected staff, while in other cases services will be provided on an individual basis. It is strongly recommended that where group sessions take place those attending each session number no more than six officers.

To satisfy Police occupational health policies each mental health professional is required to notify Psychological Services upon completion of post-trauma support using form Trauma 3a or 3b, whichever is appropriate. This requirement is detailed in Section 10.

¹ see Appendix A

² see Appendix B

5. DURATION OF TRAUMA SUPPORT SERVICES

The policy provides for up to three (3) initial contacts between nominated staff members(s) and the mental health professional. The nature of these contacts will vary, but typically may involve one initial debriefing and/or assessment contact with two subsequent follow-up contacts (which may or many not be in person – eg a telephone contact may be appropriate in some instances).

Additional support beyond these three contacts can only be authorised (on an individual case basis) with the approval of the Manager: Psychological Services. Either a Staff Welfare Officer or the Practitioner may make this request, directly to Psychological Services.

This limitation is designed to ensure that post-trauma treatment is addressed separately to other treatment requirements' which are not covered by this policy. Approval will be granted by direct contact with the mental health professional and Psychological Services.

Approval for additional support beyond the initial three (3) contacts, can only be approved by the Manager: Psychological Services, who will authorise this in writing to the appropriate mental health professional using the Trauma 5 form.

In considering additional support the primary concern will be continued timely provision of appropriate support to effect recovery from the trauma. It is recognised that this is reasonably achievable in the great majority of cases; however, there may be rare cases where the member is so severely affected that long term specialist treatment is required (as with severe Post Traumatic Stress Disorder or Trauma-related Psychosis). In such instances a review of the individual case under the Trauma Policy will be undertaken by Psychological Services to determine whether alternate treatment support is more appropriate.

6. BASIS OF REFERRALS

A differential referral process applies under this policy to address three forms of referral relating to various circumstances -

- a) Special Incidents
- b) Mandatory Referrals
- c) Voluntary Referrals

The basis for these three categories of referral takes into account different circumstances and situations that have been demonstrated to have adverse health impacts upon staff following certain traumatic events.

6a) Special Incidents

From time to time major operational incidents arise affecting wide numbers of staff, and by implication the community at large. Examples include the Mount

Erebus Disaster, Lady Elizabeth sinking, Aramoana shootings, Eagle helicopter crash, and various mass killings.

These incidents –

- may involve staff from many Police Districts
- have a high media interest
- have numerous casualties (from families to communities)
- involve a sustained Police operational response
- may produce long term psychological effects in many staff.

Because of the social disruption and the magnitude of operational responses in these cases, usual post trauma support will be reviewed to consider wider implications that may arise out of their impact on staff and affected communities. Consideration will be given to longer term support services, to the needs of special groups, and the necessity to monitor the situation over a longer time. In such cases there is likely to be involvement of other organisations and emergency services (eg Defence Forces, Fire Service, rescue groups, Department of Conservation etc), and consideration may be given to their inclusion in the support process providing there are minimal fiscal implications for the Police (see Section 7).

The decision to classify an event as a Special Incident under the Trauma Policy is reserved to Psychological Services, who will act in consultation with Staff Welfare Officers and local administration in deciding whether this classification is appropriate. Consultation will include the nature of support services required, possible long-term support considerations, implementation of monitoring processes, and the inclusion of other organisations in the support process.

6b) Mandatory Referrals

In certain cases members are required to be offered, and strongly encouraged to attend, a confidential post-incident debriefing as a matter of policy. Participation is voluntary. It should be clearly conveyed to staff that with certain events such an offer is a matter of policy, and that the consultation is confidential.

Staff who elect not to attend a consultation offered to them under the mandatory referral criteria, must inform the Manager: Psychological Services in writing of this decision within seven (7) days.

Such cases are characterised by the serious nature of the incidents concerned, and are mandatory in recognition of their inherent potential for later adverse reactions. These incidents include –

- Use of Deadly Force: either where the Police kill someone, or a Police member is deliberately killed in the course of duty.

- **Accidental Death of Members on Duty:** operational incidents involving the loss of Police life.
- **Accidental Death or Serious Injury of the Public:** where members of the public are seriously injured or accidentally killed by the Police in the course of operational duties.
- **Injury or Threat to Life of Members on Duty:** where members are subjected to grievous assaults, or have their lives placed under serious threat, (eg being taken hostage).
- **DVI Incidents and Multiple Deaths:** when full DVI process is implemented, especially if there are more than two victims involved, or where the circumstances are particularly disturbing (eg multiple victims or severe mutilation).
- **Multiple and Bizarre Homicides:** where the offence involves multiple victims, or bizarre circumstances (notably child and aged victims) and there is a significant element of horror or repugnance attached to the incident.

Whether a member is immediately “affected” by an incident is a question of judgement in each case. In some instances staff who are not directly involved at the scene of the incident may nevertheless merit consideration for referral (eg control room staff, etc). Because of possible involvement in previous serious incidents, personal concerns for victims and staff attending the scene, or key roles in operational decision making, it is appropriate to consider whether other staff beyond those at the immediate scene might require assistance under this Policy. Special concern is required for non-sworn staff who may have peripheral involvement at the scene, but who may have significant experience with the trauma through their work (eg typists involved in transcription etc).

6c) Voluntary Referrals

It is acknowledged that individual members can themselves seek referral at their own request as a result of a specific incident, or from an accumulation of several incidents. Examples may include –

- **Attending Deaths:** while this is a routine Police duty, occasional cases will produce strong adverse reactions (eg cases of suicide, cot death, serious motor vehicle accidents, and delayed discovery of a body). This is particularly so when the death impacts upon personal circumstances.
- **Failed Interventions:** these are cases where Police interventions fail to prevent loss of life or injury to others, as with suicide interventions, domestic incidents, failed negotiations, and other innocent factors that contribute to an unfortunate outcome.

- **Crowd Control:** crowd control duties may produce significant trauma, as with policing demonstrations, riots, and social events (especially where there are significant elements of risk to staff from hostile or intoxicated members of the public).
- **Other Unpleasant or Stressful Duties:** there are occasional cases which involve an unusual degree of trauma due to peculiar circumstances. These include protracted enquiries, prominent and antagonistic media responses, sexual and physical abuse cases, or other specific features.
- **Cumulative Trauma:** from time to time members may experience adverse reactions from comparatively minor events. In such cases it is possible that the latest trauma is one of a series of events that have cumulated to provide a major reaction. Cumulative reactions are usually quite serious and usually occur in conjunction with other stress reactions.

7. NON POLICE REFERRALS

The extension of this policy to non-Police personnel is a matter for careful consideration. In some operational settings the involvement of volunteers and members of other emergency service organisations arises. These may include SAR operations, DVI activities, major accidents, and situations described as Special Incidents. The Policy On The Use Of Volunteers³ recognises that these people provide great assistance and may be exposed to psychological trauma in certain instances. Accordingly Police volunteers are covered under the Trauma Policy as promulgated in Ten-One 22 April 1994 as follows –

- The Trauma Policy only applies to Police Volunteers as defined in Policy Document 1994/06 published in Ten-One, 22 April 1994.
- It does not normally apply to other volunteer groups (eg Community Patrols etc). Where an instance arises involving such volunteers prior approval is required from the Manager: Psychological Services to extend support to them. Unauthorised support will not be accepted.
- The inclusion of staff of other emergency services (notably Fire Service, Ambulance, and Defence Forces) is not covered by the Trauma Policy as these organisations are required to provide their own support services. However, if there are no marked resource implications, some cases *may* be considered for inclusion subject to the approval of the Manager: Psychological Services following consultation with the Staff Welfare Officer (see Special Incidents).
- Support for the family of Police victims or other specially affected persons may be considered in certain cases. Again the prior approval of the Manager: Psychological Services is required in these cases.

³ see Appendix C

8. FUNDING

Administration and funding of the Trauma Policy is the responsibility of Psychological Services, HR Service Centre. The operation and administration of the Trauma Policy is subject to standard accounting and budgetary processes, and is available for official audit upon demand.

9. ACCOUNTABILITY

Responsibility for the Trauma Policy resides with Psychological Services. Approvals for special consideration or additional treatment and the decision to classify an event as a Special Incident are usually the direct responsibility of the Manager: Psychological Services. In the absence of that officer, or someone acting in that position, an approach to the Manager: HR Service Centre is appropriate.

10. REPORTING (Action steps in boxed format)

Following a referral to a mental health professional the Staff Welfare Officer will immediately notify Psychological Services using the Trauma 1 form¹.

The Manager: Psychological Services will then contact the Practitioner using a Trauma 2 form¹ which contains details of the referral and provides formal information of the terms of the Policy.

To comply with Police occupational health policies the Practitioner is required to provide certification to the Manager: Psychological Services. This process improves database and staff health management.

For individual sessions this certification is on the Trauma 3(a) form¹ (multiple boxes may be ticked as deemed appropriate). This form, marked "Strictly Confidential", will not be attached to the member's personal file, but will be filed in our Trauma Policy records held in the offices of Psychological Services.

The Trauma 3(a) form is required:

- at the end of the initial three treatment sessions
- at the end of each block of three treatment sessions if treatment is ongoing (ie. after 3, 6, 9...sessions)
- at the end of treatment.

¹ see Appendix A

Example One: Constable Y has one initial contact and a follow-up contact three weeks later. No further contact is required in the opinion of either the Practitioner or Constable Y. The Trauma 3(a) form is sent after those two sessions to the Manager: Psychological Services.

Example Two: Constable Y has one initial contact and four further contacts over the next two months, resulting in a total of 5 sessions. At this time no further contact is required in the opinion of either the Practitioner or Constable Y. The Trauma 3(a) form is sent after the initial three sessions and at the end of the fifth and final session to the Manager: Psychological Services.

Note: The signature of the member is also required on the Trauma 3(a) form.

Note: Unlike past procedures, the Trauma 3 form is no longer required to be attached to the invoice for payment, for payment to be approved (although in many cases it will be enclosed for convenience with the account for payment).

For group sessions this certification is on the Trauma 3(b) form¹ at the conclusion of the group session. This form marked "Strictly Confidential", will not be attached to the member's personal file, but will be filed in our Trauma Policy records held in the offices of Psychological Services.

Account payments will be undertaken through Psychological Services using a specific code, detailed on the Trauma 2 form¹ sent by Psychological Services.

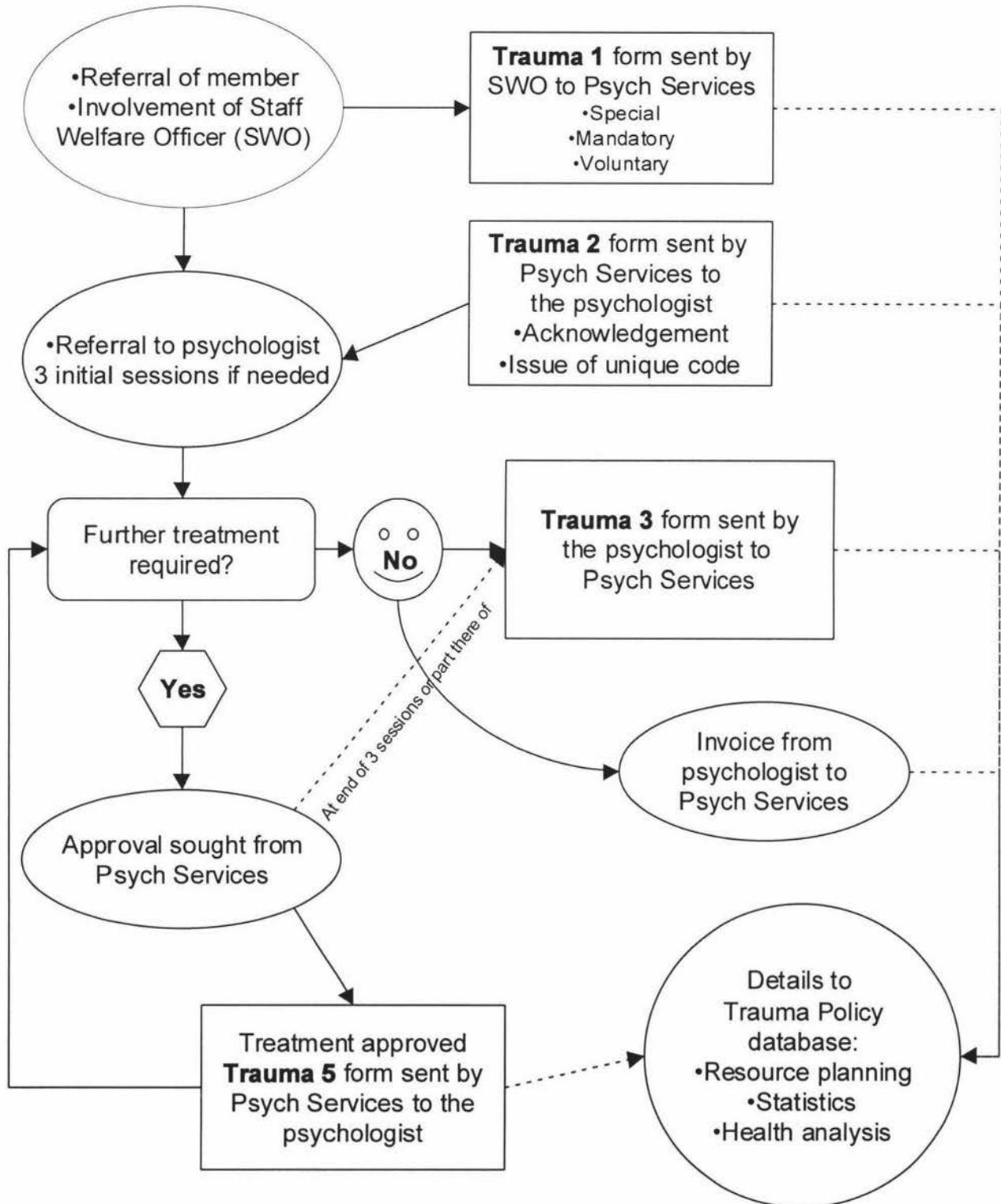
Note: Unlike past procedures, there is no longer any "Trauma 4 form". However, the term Trauma 5 form will still be used for simplicity and to ensure consistency with past Trauma Policy terminology.

In the event of additional treatment being required the Mental Health Professional is to contact the Manager: Psychological Services who will consider and formally approve additional treatment through a Trauma 5 form¹. If additional treatment is not formally approved the Police will not accept responsibility for payment for more than the initial three sessions.

¹ see Appendix A

11. PROCEDURAL STEPS

To assist in the application of the Trauma Policy the following flow chart details procedural steps in the support process -



APPENDIX A

Trauma 1**STRICTLY CONFIDENTIAL****NOTIFICATION OF REFERRAL UNDER THE NEW ZEALAND POLICE TRAUMA POLICY****This is to notify that the following member(s)**

Reg No (QID)	Surname & Initials	Station
[]	_____	_____
[]	_____	_____
[]	_____	_____
[]	_____	_____
[]	_____	_____
[]	_____	_____

has/have been referred to –

**for post-trauma support under the Trauma Policy as a result of the following
incident/circumstances:**

This referral was made on ___/___/20___ on the basis of the following referral type (circle appropriate):

Special**Mandatory****Voluntary**

This information is strictly confidential to Psychological Services, New Zealand Police, and is held pursuant to the requirements of the Privacy Act 1993. The information will be held securely and separately from any member's personal file, by Psychological Services.

Signed: _____ Staff Welfare Officer Date: ___ / ___ / 20___



Trauma 2

STRICTLY CONFIDENTIAL

ACKNOWLEDGEMENT OF REFERRAL

This acknowledges that the following member(s) of Police has/have been referred to you for post-trauma support under the Trauma Policy –

Reference No

Surname & Initials

[]

For reasons of confidentiality would you ensure that **only the reference number** is used in any future reference to any member.

The Trauma Policy makes initial provision for up to (3) contacts with a nominated mental health professional for individuals. Should a member require further treatment approval must **first** be sought from this office before proceeding. Please complete the Trauma 3(a) form at the appropriate time(s) as detailed in the Trauma Policy Manual and return it to the Manager: Psychological Services. If appropriate, it may be convenient to return the Trauma 3(a) form at time of invoicing.

If you have any concerns, or require further information, please feel free to contact this office at your convenience.

Jonathan Black
 Manager: Psychological Services
 New Zealand Police

Date: ____ / ____ / 20____

Trauma 3(a) (Individual)**STRICTLY CONFIDENTIAL****TRAUMA POLICY REFERRAL: CERTIFICATE OF HEALTH PROFESSIONAL**

I, _____ a Registered Psychologist/Medical Practitioner, certify that I have seen the following member of Police for the purposes of providing support under the Police Trauma Policy. This individual was seen on the following number of occasions.

Reference Number**Number of Contacts****Progress**

- No progress
- Some progress
- Significant progress
- Goal of professional contact achieved (reason for referral)

Outcome

No further support required at this time, end of referral
 Further support desired by client (Request for extension/ ___ Extensions approved)

- Member desired no further counselling/treatment
- Member transferred to another psychologist/psychiatrist
- Member transferred to Health Plan
- Member chose to fund further treatment him/herself

Member has decided to disengage from Police

Recommendation (if appropriate)

Follow up by Police Welfare Officer (Time period: _____ Months)
 Suggested change in work duties/hours. Please specify and provide the reason (Attach a note if appropriate).

Other (please specify) _____

This information is strictly confidential to Psychological Services, New Zealand Police, and is held pursuant to the requirements of the Privacy Act 1993. The information will be held securely and separately from the member's personal file, within the offices of Psychological Services.

Signed: _____ Psychologist/Psychiatrist _____
 Member

Date: ___ / ___ / _____

Trauma 3(b) (Group)**STRICTLY CONFIDENTIAL****TRAUMA POLICY REFERRAL: CERTIFICATE OF HEALTH PROFESSIONAL**

I, _____ a Registered Psychologist/Medical Practitioner, certify that I have seen the following members of Police for the purposes of providing support under the Police Trauma Policy. These individuals were seen during the following group session.

Surname & Initials

Reference Number

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Purpose of Group Session

Defuse

Debrief

Other (please specify) _____

This information is strictly confidential to Psychological Services, New Zealand Police, and is held pursuant to the requirements of the Privacy Act 1993. The information will be held securely and separately from the member's personal file, within the offices of Psychological Services.

Signed: _____ Psychologist/Psychiatrist Date: ____ / ____ / ____

**Trauma 5****STRICTLY CONFIDENTIAL**

APPROVAL FOR ADDITIONAL TREATMENT UNDER THE TRAUMA POLICY

Approval is hereby granted for [] additional treatment sessions for -

Reference No	Surname & Initials	Date of referral
[]	_____	_____
[]	_____	_____
[]	_____	_____

This treatment is provided in addition to the initial three contacts originally provided and results in financial liability for [] treatment sessions in total.

If you have any concerns, or require further information, please feel free to contact this office at your convenience.

Jonathan Black
 Manager: Psychological Services
 New Zealand Police

Date: ____ / ____ / 20 ____

APPENDIX B

Protocols between the New Zealand Police and Registered Psychologists

These professional protocols are principles guiding the working relationship between the New Zealand Police [Police] and Registered Psychologists [Practitioner] providing treatment services to police staff [Member] under the auspices of the New Zealand Police Trauma Policy [Trauma Policy].

Guiding principle

The guiding principle of the Trauma Policy is the provision of quick response to, and confidential support contact between, members of Police and mental health professionals who provide such services. Support is defined as treatment and/or assessment for the purposes of treatment

Supporting principles

Confidentiality

- A. That all information revealed by, and discussed with, police staff seen by a Practitioner is treated in accordance with the provisions of the Code of Ethics of the New Zealand Psychologists Board and the Privacy Act 1993.

Health and Safety

- B. That the Practitioner gives reasonable consideration to any information provided during therapeutic contact that indicates, in their professional opinion, there is an imminent likelihood of that member harming themselves or another individual. If such a likelihood exists the referring Welfare Officer or the Manager: Psychological Services is to be informed appropriately.
- C. If in the opinion of the Practitioner, after a period of treatment whereby an informed opinion can be obtained, a member's continuing presence at his or her place/role of work would significantly exacerbate an existing post-trauma condition the referring Welfare Officer or the Manager: Psychological Services is to be informed appropriately.

Obligations of the Practitioner

1. The Practitioner agrees that, whilst the client is the referred member, due consideration be given to the requirements of Police as outlined in the principles and obligations stated in these protocols.
2. The Practitioner will provide their professional services to a high standard of professional ethics and will receive direct feedback from Police if appropriate.
3. Information provided to Police by the Practitioner will be disclosed only after informed consent is obtained from the Member concerned, with due consideration of principles B and C.

4. The Practitioner will present a written report to the Manager: Psychological Services at the end of each quarter (ie. end of March, June, September, December). This report will provide a brief summary of significant organisational health issues that have come to their attention through contact with members in the prior 3 months. The report is to be supplied according to the Code of Ethics of the New Zealand Psychologists Board.
5. The Practitioner will ensure invoicing for services is prompt. All Trauma Policy services will be invoiced to Police no later than the end of the following month in which those services are delivered.
6. The Practitioner will endeavour to provide reasonable notice to the Manager: Psychological Services, if they no longer desire or are able to provide professional services under the Trauma Policy. Consideration by the Practitioner will be given to recommending, if appropriate, a suitable replacement.

Obligations of Police (Psychological Services)

1. Police will inform the Practitioner of any developments in organisational policy, procedure, and structure that are likely to significantly influence the provision of their professional service to Police.
2. Police (Psychological Services) will promote through policy and practice the value of psychological services, the confidentiality of psychological services, and the professional integrity and capability of the Practitioner.
3. Police (Psychological Services) will provide an annual report to the Practitioner summarising Trauma Policy activity through the country.
4. Police (Psychological Services) will endeavour to process invoices received for Trauma Policy services within 5 working days from reception of invoice.

Signed: _____ Date: _____
[Practitioner]

Signed: _____ Date: _____
Manager: Psychological Services
New Zealand Police

APPENDIX C

POLICY POINTERS

12 April 1994 – 1994.06

Use of Police Volunteers

1. Introduction

- 1.1 The Police Strategic Plan encourages local participation in support of community crime reduction programmes. Policing objectives can only be achieved in partnership with the community. The strategic plan also requires the police to aim for excellence in service.

2. Interpretation

- 2.1 A police volunteer, within the meaning of this policy, is an unpaid member of the public who, having been recruited and trained for a specific police operated and controlled programme or activity, is accredited with the status of police volunteer.
- 2.2 A police volunteer will primarily be engaged in community support activities at or from police premises. However, it is also recognised that there may be specific groups working in the community (as distinct from police premises), who prefer to remain under the direct control of the police. When police accept responsibility for such a group, the criteria for police volunteers, pursuant to this policy, will apply
- 2.3 A police volunteer does not include members of volunteer groups organised independently from the police whom otherwise retain their own identity, organisational structure and control. Many of these independent groups, including Maori wardens, some victim support groups and various community watch groups, interact with the police but maintain their own group affiliation and identity. This policy will refer to these as *other volunteer groups* and excludes them as police volunteers.
- 2.4 Some districts are currently using civil defence police for a range of duties, falling outside their specific purpose, as defined in the Civil Defence Act 1983. These non-civil defence duties must now conform with the guidelines of this police volunteer policy*

**(Note: The 1994 Legislative Programme includes a review of the Civil Defence Act 1983 and removal of the CD police concept will be sought by the police. In the event, O/C operations support will provide support and guidelines to districts for the deployment of emergency support police volunteers. Operations support will also provide guidelines on the deployment of emergency support police volunteers. Operations support will also provide guidelines on the deployment of crime watch patrols.)*

3. **Duties**

- 3.1 Police volunteers should only be used in roles where their focus is on *servicing the community, or enhancing police service to the community*. This includes setting up and supporting community programmes, facilitating community crime initiatives and assisting in the operation of community information bases.
- 3.2 Police volunteers may act as principal office attendants at community kiosks, community constable bases and shop frontages. At other police premises they should only be used at the district commander's discretion, in accordance with this policy.
- 3.3 Police volunteers are not to undertake work of established sworn and nonsworn positions, nor should they perform duties which would more properly be undertaken by sworn or nonsworn police staff. Volunteers are *not* to be considered as cheap alternatives to paid employees.
- 3.4 Police volunteers should, where practicable, be rostered for specific hours of work. Staffing and rosters must be monitored by O/C stations.
- 3.5 Police volunteers must be responsible to a police supervisor during their work period.
- 3.6 At the discretion of the district commander, Police volunteers may have restricted access to the Wanganui Computer or any other local databases as an "authorised person" in terms of the Privacy Act 1993. District commanders are to ensure that the Privacy Act and the Police Code of Practice are complied with.
- 3.7 When other volunteer groups engage in work closely related to policing, such as crime watch patrols, local police should give guidance and support as deemed appropriate by the district commander.

4. **Recruitment**

- 4.1 Police volunteers should be recruited for the particular programme, function or activity required.
- 4.2 Selection criteria should reflect the knowledge, experience and skills relevant to that programme or activity. An adequate job description identifying responsibilities and accountabilities should be formulated for each generic police volunteer function.
- 4.3 Police volunteers must be of good character. Written consent must also be obtained for vetting procedures. Vetting procedures should be of a similar standard to police applicants, including computer checks, two referees and an interview. The interview should be conducted by the person responsible for the volunteer position.
- 4.4 Police may also undertake vetting procedures for volunteers falling within the category of other volunteer groups (pursuant to 2.3 of this policy) with the written consent from the individuals concerned and at the discretion of the local O/C station.
- 4.5 Police volunteers shall be guided, in so far as is applicable, by the Code of Conduct for nonsworn members of police. In particular volunteers should acknowledge in writing the provisions relating to confidentiality.
- 4.6 Police volunteers must be engaged either on a specific job basis or within a time frame, dependent on the tasks or duties performed. At the end of that

job or time period the performance of the volunteer should be evaluated and a decision made as to their continued appointment. Decisions should only be taken after consultation with the volunteer concerned.

- 4.7 Police volunteers who bring the police into disrepute shall have their appointment terminated forthwith. Other examples of unsatisfactory service may be dealt with as appropriate to the circumstances of the case.

5. Training

- 5.1 All police volunteers must undergo a district accredited training programme relevant to the position to be filled. The programme may be run and/or co-ordinated from an external agency if circumstances require.

6. Identification

- 6.1 Both the public and police staff have the right to differentiate between police staff in paid employment and volunteers. While working from police premises or on police related business, volunteers should wear a standard identification card. Each card, which remains the property of the New Zealand Police, must contain the words *police volunteer*, be clearly numbered and may display the police logo and volunteer's name.
- 6.2 The police crest shall not be used on any form of identification either by police volunteers or other volunteer groups. The police logo is to be used only by police volunteers and is not to be used by other volunteer groups.

7. Remuneration

- 7.1 Volunteers perform their function as a service to the community. They receive no payment from the police, other than out of pocket expenses.
- 7.2 District commanders may consider applications from volunteers for out of pocket expenses (receipts should be produced). These include -
- * travel allowance (bus, taxi, mileage, petrol, etc – actual cost);
 - * provision for morning and afternoon tea – or actual cost;
 - * other reasonable out of pocket expenses.
- 7.3 Compensation may extend to:
- * shared accommodation (use of police premises);
 - * use of photocopy equipment, paper etc;
 - * postage;
 - * telephone or answer phone;
 - * other resources as may be considered necessary to assist the Volunteer activity/programme.

8. Compensation for Injury or Property Damage

- 8.1 Police volunteers suffering personal injury by accident while at work shall be covered by the accident rehabilitation and compensation insurance provisions. Where loss of income for the first seven days of incapacity becomes an issue, consideration will be given by the police to meeting the shortfall in accordance with the merits of each case.

8.2 A police volunteer who suffers loss or damage to personal property as a result of personal injury or accident, not covered by ACC, may be compensated by way of an ex gratia payment in accordance with the merits of each case.

9. **Trauma Policy**

9.1 The Police trauma policy, as outlined in Ten-One, 27 March 1992, applies to police volunteers. Police volunteers should therefore be included in any district training programme.

9.2 The trauma policy does not apply to other volunteer groups, within the meaning of paragraph 2.3, except on a case by case referral basis. District commanders can invoke the trauma policy for other volunteer groups assisting the police in an emergency, disaster or other situation, after consultation with the Health Services Group at PNHQ.

10. **Resources**

10.1 District commanders have the discretion to allocate resources to police volunteers and other volunteer groups, as appropriate to the functions and needs of the respective groups. This discretion includes the authorisation for the use of plain police cars by volunteers as outlined in General Instruction D58 (1) and (9).

10.2 District commanders are to ensure that other volunteer groups do not use vehicles and equipment which either display the police crest or logo, or are designed to look like police vehicles.

11. **District Register of Volunteers and Programs**

11.1 Each district shall maintain accurate records of their police volunteers and record the nature and extent of programs within their district plan.

11.2 The officer in charge, operations support, PNHQ, has administrative responsibility for *Use of Police Volunteers*.

12. **Accountability**

12.1 District commanders are accountable for the co-ordination of police volunteer programmes and police volunteer deployment within their districts, having regard to these guidelines.

12.2 District commanders should review, on an annual basis, their continuing requirement for police volunteers.

Richard Macdonald
Commissioner of Police

Appendix C

Questionnaire

Section One:

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On April 21 1996, Hastings Constable Glenn McKibbin was shot by a motorist in Flaxmere while making a routine traffic inquiry. It is understood that at this time, you were also working in Hawkes Bay.

The following questions are to explore how stressful you found this incident and to look at any debriefing received under the trauma policy. Please answer each section as carefully as possible, but if any parts disturb you, you are under no obligation to answer. Please CIRCLE THE NUMBER, or TICK THE BOX for the answer you feel is most appropriate, or GIVE DETAILS in the spaces provided.

What was the impact of the event on you personally?

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0	1	2	3	4	7
No effect	Minimal effect	Moderate effect	Considerable effect	Tremendous effect	<input type="checkbox"/>

Did you talk to a welfare officer following the event?

Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	<input type="checkbox"/>
-----	--------------------------	----	--------------------------	--------------------------

Were you involved in a group debriefing with a psychologist?

Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	<input type="checkbox"/>
-----	--------------------------	----	--------------------------	--------------------------

Did you see a psychologist on your own?

Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	<input type="checkbox"/>
-----	--------------------------	----	--------------------------	--------------------------

On how many occasions were you involved in some form of psychological debriefing related to this event?

Never	<input type="checkbox"/>	Once	<input type="checkbox"/>	More than once	<input type="checkbox"/>	More than three times	<input type="checkbox"/>	<input type="checkbox"/>
-------	--------------------------	------	--------------------------	----------------	--------------------------	-----------------------	--------------------------	--------------------------

If you were involved in a group debriefing, how helpful did you find it?

12

0	1	2	3	4	5	
N/A	Not at all helpful	Minimally helpful	Moderately helpful	Considerably helpful	Extremely helpful	<input type="checkbox"/>

Section Two:

The following are difficulties people sometimes have following stressful life events. Please read each item, and then indicate how frequently these have been true for you ONE MONTH IMMEDIATELY PRIOR TO TODAY with respect to the incident. Please circle the appropriate number. If they did not occur during this time, please circle 0.

	0	1	2	3	4		13		
	Not at all	Rarely	Sometimes	Often	Extremely				
a)	Any reminder brought back feelings about it.			0	1	2	3	4	<input type="checkbox"/>
b)	I had trouble staying asleep.			0	1	2	3	4	<input type="checkbox"/>
c)	Other things kept making me think about it.			0	1	2	3	4	<input type="checkbox"/>
d)	I felt irritable and angry.			0	1	2	3	4	<input type="checkbox"/>
e)	I avoided letting myself get upset when I thought about it or was reminded of it.			0	1	2	3	4	<input type="checkbox"/>
f)	I thought about it when I didn't mean to.			0	1	2	3	4	<input type="checkbox"/>
g)	I felt as if it hadn't happened or wasn't real.			0	1	2	3	4	<input type="checkbox"/>
h)	I stayed away from reminders of it.			0	1	2	3	4	<input type="checkbox"/>
i)	Pictures about it popped into my mind.			0	1	2	3	4	<input type="checkbox"/>
j)	I was jumpy and easily startled.			0	1	2	3	4	<input type="checkbox"/>
k)	I tried not to think about it.			0	1	2	3	4	<input type="checkbox"/>
l)	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	<input type="checkbox"/>
m)	My feelings about it were kind of numb.			0	1	2	3	4	<input type="checkbox"/>
n)	I found myself acting or feeling like I was back at that time.			0	1	2	3	4	<input type="checkbox"/>
o)	I had trouble falling asleep.			0	1	2	3	4	<input type="checkbox"/>
p)	I had waves of strong feelings about it, but I didn't deal with them.			0	1	2	3	4	<input type="checkbox"/>
q)	I tried to remove it from memory.			0	1	2	3	4	<input type="checkbox"/>
r)	I had trouble concentrating.			0	1	2	3	4	<input type="checkbox"/>

0	1	2	3	4	
Not at all	Rarely	Sometimes	Often	Extremely	

- | | | | | | | | |
|----|--|---|---|---|---|---|--------------------------|
| s) | Reminders of it caused me to have physical reactions, such as sweating, trouble breathing, nausea or a pounding heart. | 0 | 1 | 2 | 3 | 4 | <input type="checkbox"/> |
| t) | I had dreams about it. | 0 | 1 | 2 | 3 | 4 | <input type="checkbox"/> |
| u) | I felt watchful and on guard. | 0 | 1 | 2 | 3 | 4 | <input type="checkbox"/> |
| v) | I tried not to talk about it. | 0 | 1 | 2 | 3 | 4 | <input type="checkbox"/> |

Section Three:

These next sets of statements ask about how you have been feeling ONE MONTH IMMEDIATELY PRIOR TO TODAY. Please CIRCLE THE NUMBER that best describes how true you feel each statement has been for you.

0	1	2	3	
Much more than usual	Same as usual	Less than usual	Much less than usual	

- | | | | | | | |
|----|----------------------------------|---|---|---|---|--------------------------|
| a) | Able to concentrate. | 0 | 1 | 2 | 3 | <input type="checkbox"/> |
| b) | Play a useful part in things. | 0 | 1 | 2 | 3 | <input type="checkbox"/> |
| c) | Capable of making decisions. | 0 | 1 | 2 | 3 | <input type="checkbox"/> |
| d) | Faced up to problems. | 0 | 1 | 2 | 3 | <input type="checkbox"/> |
| e) | Enjoyed normal activities. | 0 | 1 | 2 | 3 | <input type="checkbox"/> |
| f) | Reasonable happy. | 0 | 1 | 2 | 3 | <input type="checkbox"/> |
| g) | Lost sleep over worry. | 0 | 1 | 2 | 3 | <input type="checkbox"/> |
| h) | Constantly under stress. | 0 | 1 | 2 | 3 | <input type="checkbox"/> |
| i) | Felt unhappy and depressed. | 0 | 1 | 2 | 3 | <input type="checkbox"/> |
| j) | Losing confidence in self. | 0 | 1 | 2 | 3 | <input type="checkbox"/> |
| k) | Thinking of self as worthless. | 0 | 1 | 2 | 3 | <input type="checkbox"/> |
| l) | Could not overcome difficulties. | 0 | 1 | 2 | 3 | <input type="checkbox"/> |

Section Four:

The following section concerns your general health. Please indicate the extent to which each of the following has disturbed you ONE MONTH IMMEDIATELY PRIOR TODAY by circling the ONE most appropriate number.

	0	1	2	3	4	
	Not at all	A little	Moderately	Quite a bit	Extremely	
Eyes water.	0	1	2	3	4	48 <input type="checkbox"/>
Itching or painful eyes.	0	1	2	3	4	<input type="checkbox"/>
Ringing in ears.	0	1	2	3	4	<input type="checkbox"/>
Temporary deafness or hard of hearing.	0	1	2	3	4	<input type="checkbox"/>
Lump in throat.	0	1	2	3	4	<input type="checkbox"/>
Choking sensations.	0	1	2	3	4	<input type="checkbox"/>
Sneezing spells.	0	1	2	3	4	<input type="checkbox"/>
Running nose.	0	1	2	3	4	<input type="checkbox"/>
Congested nose.	0	1	2	3	4	<input type="checkbox"/>
Bleeding nose.	0	1	2	3	4	<input type="checkbox"/>
Asthma or wheezing.	0	1	2	3	4	<input type="checkbox"/>
Coughing.	0	1	2	3	4	<input type="checkbox"/>
Out of breath.	0	1	2	3	4	<input type="checkbox"/>
Swollen ankles.	0	1	2	3	4	<input type="checkbox"/>
Chest pains.	0	1	2	3	4	<input type="checkbox"/>
Racing heart.	0	1	2	3	4	<input type="checkbox"/>
Cold hands or feet even in hot weather.	0	1	2	3	4	<input type="checkbox"/>
Leg cramps.	0	1	2	3	4	<input type="checkbox"/>
Insomnia or sleep problems.	0	1	2	3	4	<input type="checkbox"/>
Toothaches.	0	1	2	3	4	<input type="checkbox"/>

	0 Not at all	1 A little	2 Moderately	3 Quite a bit	4 Extremely			
Upset stomach.			0	1	2	3	4	<input type="checkbox"/>
Indigestion.			0	1	2	3	4	<input type="checkbox"/>
Heartburn.			0	1	2	3	4	<input type="checkbox"/>
Severe pains or cramps in stomach.			0	1	2	3	4	<input type="checkbox"/>
Diarrhoea.			0	1	2	3	4	<input type="checkbox"/>
Constipation.			0	1	2	3	4	<input type="checkbox"/>
Haemorrhoids.			0	1	2	3	4	<input type="checkbox"/>
Swollen joints.			0	1	2	3	4	<input type="checkbox"/>
Stiff muscles.			0	1	2	3	4	<input type="checkbox"/>
Back pains.			0	1	2	3	4	<input type="checkbox"/>
Sensitive or tender skin.			0	1	2	3	4	<input type="checkbox"/>
Face flushes.			0	1	2	3	4	<input type="checkbox"/>
Severe itching.			0	1	2	3	4	<input type="checkbox"/>
Skin breaks out in rash.			0	1	2	3	4	<input type="checkbox"/>
Acne or pimples on face.			0	1	2	3	4	<input type="checkbox"/>
Boils.			0	1	2	3	4	<input type="checkbox"/>
Sweat even in cold weather.			0	1	2	3	4	<input type="checkbox"/>
Strong reactions to insect bites.			0	1	2	3	4	<input type="checkbox"/>
Headaches.			0	1	2	3	4	<input type="checkbox"/>
Sensation of pressure in head.			0	1	2	3	4	<input type="checkbox"/>
Hot flushes.			0	1	2	3	4	<input type="checkbox"/>
Dizziness.			0	1	2	3	4	<input type="checkbox"/>
Feel faint.			0	1	2	3	4	<input type="checkbox"/>

	0	1	2	3	4	
	Not at all	A little	Moderately	Quite a bit	Extremely	
Chills.	0	1	2	3	4	91 <input type="checkbox"/>
Numbness or tingling in any part of body.	0	1	2	3	4	<input type="checkbox"/>
Twitching of eyelid.	0	1	2	3	4	<input type="checkbox"/>
Hands tremble or shake.	0	1	2	3	4	<input type="checkbox"/>
Stiff joints.	0	1	2	3	4	<input type="checkbox"/>
Sore muscles.	0	1	2	3	4	<input type="checkbox"/>
Sore throat.	0	1	2	3	4	<input type="checkbox"/>
Sunburn.	0	1	2	3	4	<input type="checkbox"/>
Nausea.	0	1	2	3	4	<input type="checkbox"/>

Section Five:

The following questions are about the sorts of support that you may receive from different people. Please CIRCLE THE NUMBER that is best for you.

	1	2	3	4	5	
	Very little	A little	Some	A lot	A great deal	
1. How much does each of these people go out of their way to do things to MAKE YOUR WORK LIFE EASIER for you?						100
a) Your immediate supervisor.	1	2	3	4	5	<input type="checkbox"/>
b) Other people at work.	1	2	3	4	5	<input type="checkbox"/>
c) Your spouse or partner, friends and relatives.	1	2	3	4	5	<input type="checkbox"/>
2. How EASY IS IT TO TALK WITH each of the following people?						
a) Your immediate supervisor.	1	2	3	4	5	<input type="checkbox"/>
b) Other people at work.	1	2	3	4	5	<input type="checkbox"/>

- c) Your spouse or partner, friends and relatives. 1 2 3 4 5
3. How much can each of these people be RELIED ON when things get tough at work?
- a) Your immediate supervisor. 1 2 3 4 5
- b) Other people at work. 1 2 3 4 5
- c) Your spouse or partner, friends and relatives. 1 2 3 4 5
4. How much is each of the following people WILLING TO LISTEN to your personal problems?
- a) Your immediate supervisor. 1 2 3 4 5
- b) Other people at work. 1 2 3 4 5
- c) Your spouse, or partner, friends and relatives. 1 2 3 4 5

Section Six:

Listed below are other various traumatic experiences that may have happened to you at some time in your life. Please read the following questions and TICK THE BOX beside the answer that is most appropriate for you.

1. Did you ever serve in military combat? 112
- Yes No
2. Did anyone ever take something from you by force or threat of force, such as in a robbery, mugging or hold-up?
- Yes No
3. Have you ever been assaulted, injured or had your life placed under threat by another person?
- Yes No

4. Did anyone ever make you have sex by using force or threatening to harm you?
This includes any type of unwanted sexual activity. 115
- Yes No
5. Did you ever suffer injury or property damage because of fire?
- Yes No
6. Did you ever suffer injury, evacuation, or property damage because of severe weather or either a natural or man-made disaster?
- Yes No
7. Did another police officer you knew well ever die because of an accident, homicide, or suicide?
- Yes No
8. Did a close friend or family member ever die because of an accident, homicide, or suicide?
- Yes No
9. Were you ever in a motor vehicle accident serious enough to cause injury to one or more passengers?
- Yes No
10. Have you been present at an incident in which a police officer was deliberately or accidentally killed?
- Yes No
11. Have you been present at an incident in which a member of the public was killed or seriously injured by the police?
- Yes No

12. Have you been involved in work with victims of multiple or otherwise particularly disturbing homicides (for example, children, or elderly victims)? 123
- Yes No
13. Have you worked at accidents in which there are multiple victims or severe mutilation of bodies?
- Yes No
14. Have your been involved in a Disaster Victim Identification Process?
- Yes No
15. Have you ever worked for periods of time in a work area that constantly included work that was distressing for you (such as child abuse cases or multiple incidents of domestic violence)?
- Yes No
16. Have you ever experienced some other shocking or distressing incident that has not been mentioned yet?
- Yes No

The experience was

Section Seven:

The following are other factors often reported to be stressful by police officers. Please indicate how stressful you have personally found each item ONE MONTH IMMEDIATELY PRIOR TODAY, as these may also be affecting your present well being.

The first factor, ASSIGNMENT OF DISAGREEABLE DUTIES has been given an arbitrary rating of 50. Compare each factor with the stress produced by being assigned disagreeable duties. For those events that you feel are more stressful than the assignment of disagreeable duties, please rate that item proportionately larger than 50. If you feel an event is less stressful than being assigned disagreeable duties, assign a number that is lower than 50. A number from 0 – 100 must be assigned for each factor; the larger the number, the more stressful the event.

	Stress Rating	128
1) Assignment of disagreeable duties.	<input type="text"/>	<input type="text"/>
2) Inadequate department support.	<input type="text"/>	<input type="text"/>
3) Plea bargaining and technical rulings leading to case dismissal.	<input type="text"/>	<input type="text"/>
4) Insufficient personnel to adequately handle a job.	<input type="text"/>	<input type="text"/>
5) Excessive, or inappropriate discipline.	<input type="text"/>	<input type="text"/>
6) Inadequate support by supervisor.	<input type="text"/>	<input type="text"/>
7) Inadequate or poor quality equipment.	<input type="text"/>	<input type="text"/>
8) Job conflict (by-the-book versus by-the-situation).	<input type="text"/>	<input type="text"/>
9) Fellow officers not doing their job.	<input type="text"/>	<input type="text"/>
10) Lack of recognition for good work.	<input type="text"/>	<input type="text"/>
11) Court decisions unduly restricting police.	<input type="text"/>	<input type="text"/>
12) Disagreeable departmental regulations.	<input type="text"/>	<input type="text"/>
13) Ineffective judicial system.	<input type="text"/>	<input type="text"/>
14) Political pressure from within the department.	<input type="text"/>	<input type="text"/>
15) Poor or inadequate supervision.	<input type="text"/>	<input type="text"/>
16) Changing from day to night shift.	<input type="text"/>	<input type="text"/>
17) Ineffectiveness of the correctional system.	<input type="text"/>	<input type="text"/>
18) Lack of participation in policy-making decisions.	<input type="text"/>	<input type="text"/>
19) Inadequate salary.	<input type="text"/>	<input type="text"/>
20) Competition for advancement.	<input type="text"/>	<input type="text"/>
21) Promotion or commendation.	<input type="text"/>	<input type="text"/>
22) Demands for high moral standards.	<input type="text"/>	<input type="text"/>
23) Court leniency with criminals.	<input type="text"/>	<input type="text"/>
24) Political pressure from outside the department.	<input type="text"/>	<input type="text"/>

Section Eight:

Finally, we need some general demographic information. Please CIRCLE THE NUMBER for the answer you feel is most appropriate, or GIVE DETAILS in the spaces provided.

How old are you? _____ years

158

What is your gender?

Male

Female

What is your present marital status?

1

Never
married

2

Married

3

Separated/divorced

4

Widowed

What is your highest educational qualification?

No school qualification 1

School certificate passes 2

School qualifications, University Entrance, and above 3

Trade certificate, Professional certificate, or diploma 4

University degree or diploma 5

Length of service in the New Zealand Police? _____ years

THANK YOU FOR YOUR CONSIDERATION

Appendix D

Participant Information Sheet

Information Sheet

This research is being conducted by Nicola Addis as part of her masterate degree, under the supervision of Dr. Christine Stephens in the School of Psychology at Massey University.

The purpose of this research is to examine the provision of debriefing to help minimise negative reactions following traumatic experiences, as part of the New Zealand Police Trauma Policy. Since its introduction in March 1992, the effectiveness of the Trauma Policy has not been formally evaluated. We are undertaking this research to learn more about how effective debriefing actually is, and highlight any areas in need of improvement.

The basis for this research will be a very serious incident that occurred approximately five years ago. The Manager of Police Psychological Services, Mr Jonathan Black, has access to records of all officers employed in the surrounding geographical area during that time. As one of the officers, Dr. Stephens and I would like to invite you to consider being part of this research. This will involve filling out a self-report questionnaire that asks about:

- Effectiveness of debriefing received from the New Zealand Police.
- Perceived severity of exposure to this incident.
- Psychological and physical well being.
- Social support.
- Other traumatic experiences.
- General workplace stressors.
- General demographic information.

We estimate that this will take about 45 minutes and questionnaires are to be returned to the researchers at the School of Psychology, in the freepost envelope provided.

With your consent, we would like to look over New Zealand Police debriefing records in relation to the incident to establish whether debriefing was received. We would

also like to view absentee records to provide an additional indication of possible post-incident responses. These will be identifiable to us by your QID number only. It is assumed that return and completion of the questionnaire implies consent.

The information obtained from this research will benefit police officers by providing an opportunity for you to voice your opinions of debriefing and the subsequent possibility of improved trauma policy. However, no immediate benefits may be apparent as they are likely to occur at some point in the future.

Throughout the entire research, all participants will be distinguishable to us by QID numbers only. The Manager of Psychological Services has posted the material. Dr. Stephens and I have supplied the information sheet, questionnaires and pre-paid envelopes to him, with the manager obtaining the necessary contact information, labelling the envelopes and being responsible for postage. This is the extent of involvement of the New Zealand Police. Please find enclosed a letter from the Manager of Police Psychological Services endorsing this.

Information provided on the questionnaire will be treated in strictest confidence, and will be available only to the researchers. You cannot be identified by your responses to the questionnaire, other than your QID number. No employee of the New Zealand Police will ever view any individual's questionnaire responses. They will be stored in a secure area for the duration of the research, and destroyed at its conclusion. Upon completion, the research findings will be sent to all participants, presented to the New Zealand Police and published in professional journals in a summarised format, so that others can learn from them. No reference to individuals will be contained in these summaries.

All participants:

- Have the right to decline to participate.
- Have the right to refuse to answer any questions.
- Have the right to withdraw from the study at any time.

- Have the right to ask any questions regarding the study at any time throughout participation.
- Provide information with the understanding that responses to the questionnaire will be in complete confidence to Dr. Stephens and I. It will not be possible to identify individuals in any reports of the results.
- Have the right to receive a summary of the results of the study on its completion.

Should you have any concerns arising from your participation, please contact your local welfare officer, [inserted here will be a contact name and phone number for the welfare officer in the participant's geographical area] or the manager of psychological services, in confidence:

Jonathan Black
04 477 9497
Jonathan.Black@police.govt.co.nz

Please do not hesitate to contact me or my supervisor if you have any further questions, by phone on 06 350 5799 ext. 2071, or by email:

Nicola Addis
NicAddis@hotmail.com

Dr. Christine Stephens
C.V.Stephens@massey.ac.nz

Thank you for your consideration.

Nicola Addis

Dr. Christine Stephens

Appendix E

Participant Follow-up Letter

23 October 2001

School of Psychology
Massey University
Freepost 86
PALMERSTON NORTH

Dear Member

In the last fortnight we sent you a questionnaire to evaluate the trauma policy operation. We have had an excellent response to the questionnaire and would like to thank you very much for returning your questionnaire.

To make this evaluation effective we need as many responses as possible, so if you haven't yet completed your questionnaire it would be greatly appreciated if it could be returned as soon as possible. Extra copies of the questionnaire are available if required, by contacting:

Jonathan Black
04 474 9581, Tie Line 44 181
Jonathan.Black@police.govt.nz

Thank you all very much for taking the time to participate in this evaluation..

Yours sincerely

Nicola Addis