



CRANFIELD UNIVERSITY

COLLEGE OF AERONAUTICS

DEPARTMENT OF APPLIED PSYCHOLOGY

DOCTOR OF PHILOSOPHY THESIS

ACADEMIC YEAR 1993-1996

KYRON M. PETERS-BEAN

'Sequential Traumatism In The Police.'

SUPERVISED BY:-  
PROF. Helen C. MUIR.  
Dr. Andy GUPPY.

January 2000

VOLUME ONE

**BEST COPY**

**AVAILABLE**

Variable print quality

ABSTRACT.

There is a paucity of research into traumatic incidents concerning police workers (Hart et al. 1995). There are also few studies relating the prolonged and repetitive exposure to traumatic stressors, or 'sequential trauma' (Gersons and Carlier 1990; 1992). Whilst it was acknowledged that organisational stress contributes to adaptive or maladaptive well being, dependent on transactional variables between the person and their environment, it was also argued that further along the stress continuum, there exists gross stress reactions similar to Post Traumatic Stress Disorders (PTSD; DSM-III-R; American Psychiatric Association 1989) and newly revised PTSD criterion (DSM-IV; American Psychiatric Association 1994). However PTSD exclusively relates to a single event of overwhelming magnitude (Davidson and Foa 1991), whilst sequential trauma relates to multiple event exposure (Peters-Bean 1990b; 1996). It was argued that the magnitude of stimuli in trauma is not as important as the management of the trauma. Rather trauma is an artefact of person-environment transactions and the operation of 'traumatic signatures' which can be used adaptively or maladaptively in certain scenarios. Models of sequential trauma were proposed and tested. These notions are discussed in relation to three studies: an interview booklet survey (N=89); a Metropolitan Police Survey (N=134) and a Main U.K. Forces Survey (N=528). Results and implications for police workers and further research was discussed. It was found that trauma signatures may possibly assist in the processes involved with encountering trauma, primary and secondary appraisal mechanisms, coping post-event and physiological and psychological well-being with reference to individual and organisational outcomes.



### ACKNOWLEDGEMENTS.

This work is dedicated to my wife, Leslea and my son, Alex - without whose continued patience and support, any progress would have been impossible and futile.

To Dr Andrew Guppy, my friend and supervisor, and Professor Helen Muir for her support, patience and considerable diplomatic skills - my humble thanks.

This research was financed and assisted throughout, under the auspices of the Bramshill Fellowship Scheme, with the assistance and co-operation of the Association Of Chief Police Officers Joint Committee On Organisational Health And Welfare. My thanks are also extended to the personnel in 40 Constabularies who acted as liaisons throughout the difficult surveys.

A great number of Police Officers and Civil Staff also took part in this survey and contributed to the on-going process of encouragement, guidance and support, over a period of three years and more. Here are a few words:

'Home is where one starts from. As we grow older  
The world becomes stranger, the pattern more complicated  
Of dead and living. Not the intense moment  
Isolated, with no before and after,  
But a lifetime burning in every moment  
And not the lifetime of one man only  
But of old stones that cannot be deciphered.'

"East Coker"  
T.S.ELIOT.

To my mentors, Professor Milton N. Silva and Atticus, a thousand thousand thanks.

[Finally, a special mention for the friends and family of TIGGER (T-I-double `g'-rrr) - thanks, Mike, Hjørdis, Leigh-an and Lauren, thanks for Florida and `Ho'd-it-n-Dod-it']



CONTENTS.

PAGES.

VOLUME ONE

ABSTRACT.

ACKNOWLEDGEMENTS.

CHAPTER ONE - OVERVIEW.

1.	AIM OF THE OVERVIEW.	1
1.1.	Research Focus.	
1.1.1.	Chapter Two - Police Stress.	
1.1.2.	Chapter Three - General Stress Theory.	
1.1.3.	Chapter Four - Police Trauma.	
1.1.4.	Chapter Five - Exposure To Trauma.	2
1.1.5.	Chapter Six - Appraisal.	
1.1.6.	Chapter Seven - Coping.	
1.1.7.	Chapter Eight - Gross Stress Outcomes.	
1.2.	RESEARCH OBJECTIVES.	

CHAPTER TWO - POLICE STRESS.

2.	GENERAL ASPECTS OF POLICEWORK.	3
2.1.	Emotional Exhaustion And Burnout.	
2.1.1.	Research Interest.	4
2.1.2.	Single Or Multiple Event Stress.	
2.1.3.	Police Stress.	
2.1.4.	Occupationally Specific Stressors.	
2.1.5.	Workload.	5
2.1.6.	Work Expectations.	
2.1.7.	The Police Culture.	
2.1.8.	Gender Differences.	6
2.1.9.	Stress Outcomes For Police.	7
2.1.10.	The Police Career.	8
2.1.11.	Other Stressors.	
2.2.	SUMMARY.	

CHAPTER THREE - GENERAL STRESS THEORY.

3.	INTRODUCTION.	10
3.1.	STRESS COSTS.	
3.1.1.	Current Financial Costs.	11
3.1.2.	Causal Aspects.	
3.2.	COMPETING STRESS THEORIES.	12
3.3.	INDIVIDUAL STRESS.	
3.3.1.	Work Performance.	
3.3.2.	Coping With Stress.	13
3.3.3.	Cognitive Appraisal.	
3.3.4.	Coping Strategies.	14
3.4.	PHYSIOLOGICAL STRESS.	15
3.5.	TRANSACTIONAL STRESS.	
3.5.1.	Influences On The Person.	
3.5.2.	Influences From The Environment.	16
3.5.3.	Social Support.	
3.6.	COGNITIVE-EMOTIONAL STRESS.	
3.7.	TYPE A BEHAVIOUR.	17
3.8.	LIFE EVENTS.	

<u>CONTENTS.</u>	<u>PAGES.</u>	
3.9.	PSYCHOSOCIAL STRESS.	18
3.10.	OTHER RESEARCH ISSUES.	
3.11.	SUMMARY.	19
 <b>CHAPTER FOUR - POLICE TRAUMA.</b>		
4.	POLICE TRAUMA.	21
4.1.	The Occupational Context.	22
4.1.1.	The Situational Context.	
4.1.2.	The Historical Context Of Post Traumatic Stress Disorder.	23
4.1.3.	Sequential Trauma.	
4.1.4.	Frequency Of Traumata.	25
4.2.	SUMMARY.	26
 <b>CHAPTER FIVE - EXPOSURE TO TRAUMA.</b>		
5.	EXPOSURE TO THE TRAUMATIC DOMAIN.	27
5.1.	Traumatic Stressors.	28
5.2.	MODELS OF TRAUMATIC EXPOSURE.	
5.2.1.	One Event Models.	
5.2.2.	Multiple Event Coping.	29
5.2.3.	Traumatic Signatures.	
5.2.4.	Kindling Phenomenon.	30
5.2.5.	Signature Strength.	31
5.2.6.	Dissociation.	32
5.3.	SUMMARY.	
 <b>CHAPTER SIX - APPRAISAL.</b>		
6.	APPRAISAL OF TRAUMATIC EVENTS.	34
6.1.	PTSD (DSM-IIIIR).	
6.1.1.	PTSD (DSM-IV).	
6.1.2.	'Normal' Responses.	35
6.1.3.	Diagnostic Criterion.	36
6.1.4.	Specific-Task Trauma.	
6.1.5.	Proximity And Magnitude.	37
6.2.	APPRAISAL.	
6.2.1.	Intrusion And Avoidance.	38
6.2.2.	Retrieval Of Trauma Memory.	39
6.2.3.	'Hardiness'.	40
6.2.4.	'Locus Of Control'.	41
6.2.5.	Illusion Of Control.	42
6.2.6.	Primary Appraisal Mechanisms.	43
6.2.7.	Secondary Appraisal Mechanisms.	44
6.2.8.	Dysfunctional Attitudes.	45
6.3.	SUMMARY.	47

<u>CONTENTS.</u>	<u>PAGES.</u>
<b>CHAPTER SEVEN - COPING.</b>	
7. COPING WITH TRAUMA EVENTS.	48
7.1. Problem-Focused Coping.	
7.1.1. Emotion-Focused Coping.	49
7.1.2. Negative Affectivity.	
7.1.3. Coping Styles.	50
7.1.4. Personality.	
7.1.5. Problem Solving.	51
7.1.6. Processing Stressor Events.	
7.2. ATTRIBUTION OF BLAME.	52
7.2.1. Self-Blame.	
7.2.2. Shattered Assumptions.	53
7.2.3. Rebuilding Assumptions.	54
7.2.4. The Role Of Denial.	55
7.2.5. World Assumptions.	56
7.3. SUMMARY.	57
<b>CHAPTER EIGHT - GROSS STRESS OUTCOMES.</b>	
8. METHODOLOGICAL CONSIDERATIONS.	58
8.1. Physical And Mental Well-Being.	
8.1.1. Neuroticism.	59
8.1.2. Context Free Mental Health.	
8.2. POLICE TRAUMA OUTCOMES.	60
8.2.1. Police Individual Outcomes.	
8.3. SUMMARY.	61
<b>RESEARCH OBJECTIVES.</b>	
9. RECAPITULATION.	63
10. RESEARCH OBJECTIVES.	
<b>METHODOLOGY.</b>	
11. Methodology.	64
<b>STUDY ONE: THE INTERVIEW SURVEY.</b>	
12. STUDY ONE: THE INTERVIEW SURVEY.	65
12.1. Interview Survey Distribution.	67
<b>RESULTS FOR STUDY ONE: THE INTERVIEW SURVEY.</b>	
13. THE INTERVIEW BOOKLET.	69
13.1. DESCRIPTIVE ANALYSES.	
13.1.1. Exposure To Distress.	72
13.1.2. Descriptive Analysis Of General Mental Health.	75
13.1.3. Relationship Between GHQ And Neuroticism.	78
13.1.4. Relationship Between GHQLIK, NAFF And Multiple Trauma.	

CONTENTS.

PAGES.

**DISCUSSION OF STUDY ONE.**

14.	Qualitative Data.	80
14.1.	Levels Of Trauma Exposure.	
14.1.1.	Coping Strategies For Police And Civil Staff.	81
14.2.	SUMMARY.	82

**METHODOLOGY FOR STUDY TWO: THE METROPOLITAN POLICE SURVEY**

15.	STUDY TWO: THE METROPOLITAN POLICE SURVEY.	84
15.1.	Work Problems.	
15.1.1.	Domestic Problems.	86
15.1.2.	The Impact Of Events Scale.	
15.1.3.	Post Traumatic Stress Disorder.	88
15.1.4.	Cognitive Appraisal.	90
15.1.5.	General Health Questionnaire.	91
15.1.6.	The Cybernetic Coping Scale.	92
15.1.7.	Personal Views About The World.	
15.1.8.	Additional Information.	93
15.1.9.	Biographic Details.	
15.1.10.	Distribution Of Questionnaire.	

**RESULTS FOR STUDY TWO: THE METROPOLITAN POLICE SURVEY.**

16.	THE METROPOLITAN POLICE SURVEY.	97
16.1.	DESCRIPTIVE ANALYSES.	
16.1.1.	Work Problems.	98
16.1.2.	Domestic Problems.	102
16.1.3.	Impact Of Events.	104
16.1.4.	Intrusion And Avoidance.	
16.1.5.	Thresholds Of Intrusion And Avoidance.	105
16.1.6.	Frequency Of Intrusion And Avoidance.	111
16.1.7.	PTSD Variables.	112
16.1.8.	Relationships Between IES And PTSD.	113
16.1.9.	Primary And Secondary Appraisal.	114
16.1.10.	General Mental Well-Being.	117
16.1.11.	Relationships Between The IES, PTSD, GHQ And NAFF Variables.	119
16.1.12.	Cybernetic Coping Scale.	120
16.1.13.	World Assumptions Scale.	122
16.1.14.	Comparisons Of IESTOTAL, INTRUDE, INTEX, AVOID And AVEX Variables Across Frequency Of Traumatic Experience.	123
16.1.15.	Best Practice In Interventions.	126
16.1.16.	Other Information.	128

<u>CONTENTS.</u>	<u>PAGES.</u>	
<b>DISCUSSION OF STUDY TWO.</b>		
17.	Qualitative Data.	
17.1.	Multiple Exposure To Trauma.	129
17.1.1.	The Impact Of Multiple Event Exposure.	
17.1.2.	The Evaluation Of Trauma Signature Theory.	132
18.	SUMMARY.	133
<b>METHODOLOGY FOR STUDY THREE: THE MAIN U.K. FORCES STUDY.</b>		
19.	STUDY THREE: THE MAIN U.K. FORCES STUDY.	134
19.1.	The Main U.K. Questionnaire.	
19.1.1.	The Questionnaire Items.	135
19.1.2.	Distribution Of Main Questionnaires.	137
<b>RESULTS FOR STUDY THREE: THE MAIN U.K. FORCES STUDY.</b>		
20.	MAIN U.K. FORCES SURVEY.	140
20.1.	DESCRIPTIVE ANALYSES.	
20.1.1.	Work Problems.	142
20.1.2.	Domestic Problems.	144
20.1.3.	Impact Of Events.	145
20.1.4.	Intrusion And Avoidance.	146
20.1.5.	Thresholds Of Intrusion And Avoidance.	147
20.1.6.	Frequency Of Intrusion And Avoidance.	151
20.1.7.	Primary And Secondary Appraisal.	152
20.1.8.	General Mental Well-Being.	153
20.1.9.	Cybernetic Coping Scale.	156
20.1.10.	World Assumptions Scale.	157
20.1.11.	Best Practice In Interventions.	158
20.1.12.	Comparisons Of IES, INTRUDE, AVOID, AVEX NAFF and RANDOM Variables Across Frequency Of Traumatic Experience.	159
<b>DISCUSSION OF STUDY THREE.</b>		
21.	Qualitative Data.	163
21.1.	Multiple Exposure To Trauma.	164
21.1.1.	Work Stress Or Work Trauma?	166
22.	SUMMARY.	167
<b>RESULTS FOUR.</b>		
23.	TRAUMA AND OUTCOME RELATIONSHIPS.	168
23.1.	Experience Of Work Stressors, Frequency Of Trauma And The Impact On General Mental Health And Coping.	171
23.1.1.	The METPOL Correlations.	176
23.1.2.	Relationships Between Measures Of Primary And Secondary Appraisal With General Mental Health And Negative Affectivity.	177
23.1.3.	The MAIN U.K. Correlations.	183
23.1.4.	Relationships Between Cybernetic Coping, IES And GHQ.	

<u>CONTENTS .</u>	<u>PAGES .</u>	
23.1.5.	Relationships Between Cybernetic Coping And WAS.	184
23.1.6.	Comparisons Between IES And Other Outcome Measures.	186
24.	MULTIPLE REGRESSION ANALYSES.	
24.1.	MRA Predicting General Mental Health.	187
24.1.1.	MRA Predicting Impact Of Events.	189
24.1.2.	Predictors Of State Mental Health And Trait Mental Health (Or Negative Affectivity).	190
24.1.3.	MRA Predicting Negative Affectivity.	191
25.	THE RESEARCH OBJECTIVES.	193
25.1.	Research Objective #1.	
25.1.1.	Research Objective #2.	194
25.1.2.	Research Objective #3.	195
25.1.3.	Research Objective #4	196
25.1.4.	Research Objective #5.	
26.	DISCUSSION OF RESULTS FOUR.	197
26.1.	Negative Affectivity And Police Work.	
26.1.1.	Multiple Trauma Exposure, Primary Appraisal, And Implications For Coping.	198
26.1.2.	The Usefulness Of Internal World Models And Their Implications For Coping.	201
27.	SUMMARY.	202
 <b>MAIN DISCUSSION.</b>		
28.	DISCUSSION.	203
29.	SECTION ONE: Traumatic Encounters And The Frequency Of Exposure To Trauma.	
29.1.	Impact Of Events And Intrusion And Avoidance.	205
29.1.1.	IES Appraisal And Outcomes.	
30.	SECTION TWO: The Role Of Primary And Secondary Appraisal In Relation To Multiple Exposure To Trauma.	207
30.1.	Primary Appraisal.	
30.1.1.	Secondary Appraisal.	208
30.1.2.	Appraisal Characteristics.	210
31.	SECTION THREE: Coping Characteristics.	212
32.	SECTION FOUR: The Role Of World Assumptions.	213
33.	SECTION FIVE: Negative Affectivity.	215
34.	SECTION SIX: The Empirical Argument For The Existence Of Traumatic Signatures.	216
35.	SUMMARY.	219
36.	RECOMMENDATIONS FOR FURTHER RESEARCH.	220
<b>BIBLIOGRAPHY.</b>		<b>222-262</b>

CONTENTS.

VOLUME TWO

PAGES.

**APPENDIX "A"**

- INTERVIEW SURVEY QUESTIONS AND RESPONSES. 263-285

**APPENDIX "B"**

- SEQUENTIAL TRAUMA QUESTIONNAIRE  
(METROPOLITAN POLICE VERSION). 286-307

**APPENDIX "C"**

- Case Scenarios For IES Referents For Some  
Police And Civil Staff In The Metropolitan Police Service. 308-337

**APPENDIX "D"**

- SEQUENTIAL TRAUMA QUESTIONNAIRE  
(THE MAIN U.K. FORCES VERSION). 338-357

**APPENDIX "E"**

- The SPSSPC+ Command File Used In This Study. 358-363

**APPENDIX "F"**

- Showing The Post-Hoc Analyses (TUKEY-HSD Procedure)  
For The METPOL and MAIN U.K. Data And The Multiple T-Tests  
For The Combined Data Used In This Study. 364-392

## CHAPTER ONE - OVERVIEW.

### 1. AIM OF OVERVIEW.

The aim of this overview is to acquaint the reader with the focus of the research, without necessarily having to read each chapter in turn.

#### 1.1. Research Focus.

The concept of trauma acquisition and resolution is explored in this document.

More importantly an argument is presented on the notion of prolonged and repetitive exposure to traumatic incidents, or 'Sequential traumatisation'. For example:

1. How the phenomenon may be established as a syndrome of acute anxiety.
2. What the likely symptoms are.
3. Where the interaction between police work and an officer's home environment might influence the onset of symptoms.
4. When breakdown of normal psychological and social functioning might occur.
5. Why the interplay between, (a) Psychological characteristics of the individual and (b) Organisational factors associated with work - might shape officers' psychic experience.
6. Who is likely to be affected.

##### 1.1.1. Chapter Two - Police Stress.

This chapter specifically discusses sources of stress within police work. It also focuses on some aspects of police employment, which the reader might not be aware, such as the various roles and tasks that are conducted by uniformed officers, civilian staff and the various specialist departments within Constabularies.

It also expands on the argument by highlighting the difference between stress and trauma, as being on different ends of a continuum of psychic experience.

##### 1.1.2. Chapter Three - General Stress Theory.

Provides an overview of general stress theory, to outline physical and psychological issues surrounding distress for an individual. It also outlines the sources of stress within the context of work and home settings.

##### 1.1.3. Chapter Four - Police Trauma.

Proposes that police stress may involve the interaction between work and home environments, but that trauma is an occupationally specific facet of police work. The sources of traumatic events for officers is also discussed.



#### **1.1.4. Chapter Five - Exposure To Trauma.**

Discusses the events leading to trauma itself and outlines a process model of sequential trauma. Here it is asserted that the police on encountering multiple traumatic events deal with these incidents in subtle and complex ways. The notion of traumatic 'signatures' is also explored.

#### **1.1.5. Chapter Six - Appraisal.**

Appraisal of traumatic events is considered, particularly in relation to primary and secondary appraisal, buffering effects, locus of control and the formation of dysfunctional attitudes. It is argued that for police workers, internal mechanisms of control, coupled with trauma signatures assist in effective coping.

#### **1.1.6. Chapter Seven - Coping.**

This chapter highlights current issues in coping with trauma and the influence of effective coping mechanisms. Problem and emotion focused strategies are discussed, as well as models of internal belief systems - with particular reference to the work of Janoff-Bulman and the World Assumptions Scale.

#### **1.1.7. Chapter Eight - Gross Stress Outcomes.**

Provides the basis for the research into sequential trauma by introducing a framework within which research objectives are set. Notions of work trauma and the possible effects on physical and mental well being are also discussed. Sequential trauma theory is also brought to a tentative conclusion within this chapter.

### **1.2. RESEARCH OBJECTIVES.**

This brief section enumerates the study tasks and aims that have been framed in a series of questions for the ongoing survey.

## CHAPTER TWO - POLICE STRESS.

### 2. GENERAL ASPECTS OF POLICEWORK.

One is tempted to think about policing in the context of Uniformed Beat Duty, where officers patrol areas under their responsibility and administer various functions of the law.

Police work might involve any sphere of activity, from mediating in a neighbour dispute, to the sudden and unexpected violence encountered in arresting a suspect, or attending the scene of criminal disturbance. And in their daily routine officers encounter a multitude of potentially stressful events, some of which range from being mildly distressing, to the more traumatic and incapacitating anxiety states.

These anxiety states are discussed as a continuum (see Newman 1987) along which anxiety is manifested in either minor organisational stressors (such as those involved in the context of work bureaucracy) or up to and including, the sometimes overwhelming horror and brutality of homicide; accidental death; personal life-threatening experiences; and the processes associated with emotional exhaustion and 'burnout' (Maslach and Jackson 1981; Reese 1986).

#### 2.1. Emotional Exhaustion And Burnout.

Emotional exhaustion, according to Gaines and Jermier (1983), is partially the result of personal characteristics exhibited by the employee, interpersonal surroundings, and the work itself:

'...Constant exposure to society's interpersonal violence; subservience to an ambivalent, watchful public; and an extreme psychological separation from the policed.'

Gaines and Jermier (1983) pp 569.

Burke and Deszca (1986; 1988) argue that 'BURNOUT' - a syndrome of emotional exhaustion, depersonalisation, and reduced personal accomplishment - develops over time.

Individuals exhibiting advanced phases of burnout report a lower quality work setting, more negative work and extra-work outcomes. These officers tended to be older.

A number of specific problems result from extreme exposure to stressors, including burnout, negative self-esteem, negative attitudes to people, life, work and personal difficulties including family conflict, divorce, suicide and physiological disorders, such as cancers and heart disease (Band and Manuele 1987). The authors reported that police officers had relatively high levels of self-esteem and perceived themselves to cope adequately, but there were also maladaptive coping behaviours, such as depression, sleeplessness and alcohol abuse.

Anson and Bloom (1988) and Pendleton et al. (1989) argue that, although police officers experience stress through maintaining contact with an unpredictable and hazardous section of the public, work inconvenience and anti-social shift hours, and deal with an ambivalent police bureaucracy - other occupations are the subject of similar stressors.

### **2.1.1. Research Interest.**

This research will explore the work conducted by officers and their civil staff counterparts who may work 'on or off the streets', either performing a specific function such as Uniform Response Teams or the investigation of child abuse; domestic (marital) violence; the gathering of forensic evidence; investigating traffic accidents; or in processing court prosecutions and so on.

In this way contribution will be made in understanding the hierarchic bureaucracy of police work (discussed in terms of occupational stressors - ranging from minor hassles to extreme range distress) and the sudden and unexpected onset of severe trauma states will be highlighted.

### **2.1.2. Single Or Multiple Event Stress.**

The research focus is not on the impact of single trauma events alone, rather this study concerns itself with assessing the long term impact of multiple trauma events - which will be discussed later.

For example, single events which contribute to the psychopathology of anxiety are compared with multiple events of prolonged and repetitive exposure to all such traumatic events - which are seen as contributing to more subtle and pervasive psychological and physiological outcomes. Using the literature as a guide, models of trauma exposure will be described to highlight multiple event exposure and their adaptive or maladaptive outcomes.

### **2.1.3. Police Stress.**

Police Officers, it could be argued, work in a uniquely high stress occupation (Selye 1978) however this would suggest that the officers require additional treatment strategies, not available to ordinary members of the public.

It is suggested here that police stressors are not unique but occupationally specific (Dufford 1986; Perrier and Toner 1984) and that as a population, at this time, the police service, as an organisation, fall behind other Public Sector Organisations in their response to worker problems (Alexander et al. 1991; Hillas and Cox 1986).

### **2.1.4. Occupationally Specific Stressors.**

Perrier and Toner (1984) argue that stress may be occupationally specific, although the outcomes of stress may be comparable to other emergency workers (Hetherington 1994; McFarlane 1990 and Patterson 1992). The authors report that police work did include a high degree of stress and its impact was largely psychological. External and internal organisational factors were also discussed, and the nature of police work itself - in relation to the psychological and somatic or physiological disposition of the officer.

Also, in a study of Cincinnati police officers, (Kroes et al. 1974) specific stressors were identified which lay outside the apparent control of the individual. These were listed variously as the courts; administration; equipment; community relations; changing shifts; relations with supervisors; non-police work; other colleagues; bad assignments; isolation and boredom, and lastly, pay.

Kroes et al. (1974) argued that the stressors appeared to be extrapunitive in this respect (the officers tended to lay blame on others) and that a negative public image of the police and poor police-community relations were stressors which appeared utmost in the officers' experience.

#### **2.1.5. Workload.**

Examining the relationship between workload and job dissatisfaction, Van Harrison (1976) found that both factors varied for different occupations. For example, work underload had little impact on the job satisfaction of police. This was interpreted as being seen to be a necessary part of their job. Long hours with little activity on patrol did not influence their job satisfaction.

Also, police work itself is undergoing rapid and dynamic change within its own structure and organisation (see Peters-Bean (1995) for a discussion on 'industrialised anxiety' and the impact of change, and White et al. (1985) for stress factors which affect police workers).

The above articles argue that change leads to uncertainty, and increased perceptions of being unable to cope with the changes involved with legal, administrative and financial practices.

#### **2.1.6. Work Expectations.**

The physical and emotional fitness of officers, under laboratory conditions of simulated and naturalistic stress was studied by Diskin et al. (1977). The outcome has confirmed the influence of prior-expectation and informational content in the stimulus environment, relating to the psychophysiological reactions to stress.

Cognitive preparation of reactivity is determined by various personality factors. Lessened anxiety was facilitated through desensitisation and relaxation techniques.

Hardy, Parfitt and Baker (1989) also argue that the physical fitness of police officers enables more productive coping with distress and there is further evidence that supports the notion that stress awareness programmes should be included in police training (Bull and Horncastle 1988; Dunning 1990; Reese 1990 and Silva 1990).

#### **2.1.7. The Police Culture.**

According to Davidson and Veno (1980) there are four major categories of stress for police organisations:

1. Extra-organisational stressors;
2. Stress and individual differences;
3. Occupational sources of stress;
4. Occupational stressors and stress-related outcomes.

The authors argue that stress can only be adequately investigated by using a multi-disciplinary approach and, when examining police stress in particular, extra-organisational, cultural and social factors are taken into account.

For example, Miller and Braswell (1983) point out that police organisations are typically authoritarian and quasi-military - where officers respond to orders issued by senior ranks, but at the same time are expected to make individual, complex, and demanding decisions.

A police officer has to be interpersonally effective in his or her role, but receives little or no training in these skills (Lester et al. 1984 and Violanti 1988). An officer must try to maintain control of situations which may be the source of conflict - and thus attempts to arbitrate in that conflict - but periods of work may also be long, repetitive and boring and at the next moment, life-threatening. Therefore police officers are flexible in their decision making and decision taking, which is more practised than simply adhering to obeying orders.

Moreover, Witham and Gladis (1986) hypothesise that organisations that are authoritarian based, such as the police, cannot rely on written rules to guide their actions alone. A more flexible approach has to be developed for law-enforcement agencies and officers performing routine duties. Sticking to the 'letter-of-the-law' can lead to over reliance of rules and negate any individual skills or talents which the officer might possess. Rules are misused, since strict compliance may lead to violence or injury.

And police officers find themselves the targets of 'organised vilification' (Davis 1984) as well as the other hazards associated their job, such as shiftwork, repeated exposure to sudden and often violent death, aggression, and accusations of 'interference' in civil matters. Police work is not simply role playing or rule following. It is more dynamic than that.

#### **2.1.8. Gender Differences.**

An alternative view of stressors which include, physical or psychological threat, the use of 'evaluation systems', and lack of support, is offered by White et al. (1985). Evaluation systems refer to problems associated with the judiciary, prison systems, promotion, and pay and conditions for equitable work between male and female officers. (See also Anson and Bloom 1988; Brown and Campbell 1990; 1994; Brown 1986). Officers of both sexes generally compared their lot with other justice organisations, either favourably or disfavouredly - but female officers argue that they least recognised or rewarded for their contribution to police work.

Comparisons between male and female police personnel (Love and Singer 1988) and the perceived gender differences in the way that the officers work have important implications for stress responses. For example, the authors reported that self-esteem ratings were thought to predict different emotional and motivational aspects of behaviour between genders. For example, Male police officers reported that their female colleagues were viewed as being less capable in violent confrontations, but more effective in dealing with domestic incidents. These views were confirmed by female police themselves.

However, Love and Singer (1988) noted that there were no significant correlations within general affectiveness measures - i.e. both male and female police workers placed confidence in their personal ability and were reported to exhibit a similar level of positive psychological well-being. Both sexes reported similar concerns about low job satisfaction, an ambivalent approach to police work and poor contentment with pay and working conditions.

Brown and Campbell (1994) however highlight gender differences in job perceptions that reflect the more negative side of policing and report that sexual harassment of women officers was a prevalent feature of their research. In other words both male and female officers perceive themselves to be engaged in the same type of work activity, but that female officers feel disadvantaged by male colleagues and are, perhaps, under more stress due to their work being undervalued.

#### **2.1.9. Stress Outcomes For Police.**

Violanti et al. (1986) discussed the mortality rate for police workers from specific diseases compared with other similar groups. Factors inherent in the police occupation and lifestyle were also discussed as possible causes of death.

Standardised Mortality Ratios - that is, the ratio of the number of deaths in the study population to the number of deaths expected, if it had the same ratio as the US White Male population - were significant for malignant neoplasms (cancer), in particular cancer of the digestive organs, oesophagus and colon, whilst lower rates were found for infective and parasitic diseases, respiratory diseases and accidents.

Police suicide was about three times higher than compared with another similar working population. (See also Fletcher 1988; Hill and Clawson 1988).

Burke (1988a) in his study of 828 officers found that Type A behaviours (characterised as hard-driving, goal directed individuals who are time-urgent, ambitious and competitive - Friedman and Rosenman 1959) were significantly related to measures of well-being but only barely related to work and life demands.

Type A behaviour is thought to be associated with Coronary Heart Disease (CHD), cancers and other potentially fatal diseases (Cox et al. 1983; Friedman and Rosenman 1959; House 1974; Violanti et al. 1986).

However, Type A behaviour according to Mettlin (1976), is usually rewarded in organisations and is seen as a sign of achievement. But the downside is that the more tasks and demands that are made, and the less able that a person perceives that he or she is able to meet those demands, the more prevalent the stressor.

Burke and Deszca 1988 (and Burke 1988a; 1988b) also postulate that there are six main categories of work stressors:

1. Physical environment.
2. Role stressors.
3. Organisational structure.
4. Job characteristics and relationships with others.
5. Career-development.
6. Work-family conflict.

The combination of any of these factors can exacerbates the demands placed upon an individual and, for police, the tension may lead to burnout and emotional exhaustion.

#### **2.1.10. The Police Career.**

Previous research has not paid much attention to career development (Glowinkowski and Cooper 1985) and factors such as starting, developing, maintaining and ending a career were discussed by the authors, as well as career transitions.

Emotional, psychological or physical stress can vary according to different stages in a young officer's career (Kaslof 1989). From day one to the fifth year, the Alarm Stage - 'reality shock' is experienced; police work appears different from what is taught at the training academy.

The second stage, from sixth to thirteenth year is referred to as the Disenchantment Stage - idealistic notions developed during earlier phases move further away from reality. This is a time for cynicism, bitterness and disappointment.

Stress is increased after these initial phases when goals shift from organisational constructs to more personal concerns.

#### **2.1.11. Other Stressors.**

In 1989 Cullen reported to the Association of Chief Police Officers Joint Working Group on Organisational Health and Welfare that the four main stressors for British police officers were: Management Style, Management Systems, Management Support, and Traumatic Incidents. See also Manolias (1983).

Brown and Campbell (1990) discussed their study of a UK provincial police force and found that the most frequently reported organisational and management stressors were: manpower shortages; shift work and time pressures; deadlines; lack of consultation; and communication problems. They also reported 'operational' stressors as including sudden deaths or violent arrests but mentioned that 'Felt Stress' scores did not significantly differ according to rank.

#### **2.2. SUMMARY.**

Unlike similar organisations, the police encounter conflict both within their work place and outside of it.

Stressors may range from minor hassles associated with constraints or tensions between peers and supervisors within the cultural framework (intra-organisational) to the unexpected or threatening encounters with the public (extra-organisational).

For example, accidents and sudden unexpected death may bring into question the officer's own mortality and this increases stress. So too, conflict with one's fellows or boss, or difficulties in accounting for and enforcing new legislation or working practices may increase perceived stressors.

Stressors brought about by change within the structure and culture of the organisation and the change within the working environment (Peters-Bean 1995) has also contributed to higher levels of perceived stress amongst officers, particularly supervisory and managerial ranks (Bonafacio 1991; Brewer, Wilson and Beck 1994; Greller et al. 1992).

But in order to understand the nature of police stress with clarity, it is first important to outline general stress theory - which is the substance of the next chapter.



## CHAPTER THREE - GENERAL STRESS THEORY.

### 3. INTRODUCTION.

This section describes the nature of stressors which may be experienced at home or at work, or as a combination of the transactional processes involved between a person and their environment (Cox and Mackay 1981; Lazarus 1966; Lazarus and Launier 1978).

Stress is a generic word which has been taken to mean different things (Dewe, Cox and Ferguson 1993) - but usually as a signal that a person has reached some limit of physical and/or mental competence and has succumbed to the effects of having more than normal demands placed upon them (Kahn et al. 1964). These issues will be expanded upon below.

In the meantime, in order to understand the impact of stress at home or work it is worthwhile providing an overview of the competing perspectives involved in the study of stress and its outcome, 'strain' (Van Dijkhuisen 1981).

#### 3.1. STRESS COSTS.

Work related stress is a major cause for concern for police organisations - sickness or absenteeism is estimated to cost an arbitrary 1/3 to a 1/4 of their annual budgets. The exact cost may not be known.

In the Metropolitan Police Service, for example, this is equivalent to some 3000 staff absent from work daily (more than the total establishment of some provincial Forces - Home Office Affairs Committee 1991 'Police Sickness.' Fifth Report).

Whether sickness or absenteeism is the direct result of police work stressors have not been studied in great depth. However Warwick-Evans (1983) provides evidence that many psychosomatic disorders (physical symptoms influenced by psychological factors) may be related to stress responses. Feelings and emotions that are invoked by stimuli are present and are, perhaps, anticipated by the individual (see also Dohrenwend and Dohrenwend 1980).

Fletcher (1988) also, suggests that perhaps as much as 60% of absenteeism from work may be generally due to stress factors and is a major concern for employers.

Cooper (1982) also argued that 40 million working days were lost to British Industry due to mental illness, stress and headaches. He states that public and government concern is increasing as the impact of long and short term stress on the individual, family, work organisation and national economy are made evident.

### **3.1.1. Current Financial Costs.**

A decade later, Cox (1993) reports that estimates of the current financial cost of stress to UK industries is not easy to determine.

However, Berridge and Cooper (1993) argue that many managers in US industries hold the perception that stress is counter productive to the economic goals of enterprise, and highlight that most major companies now have Employee Assistance Programmes (EAPs) to manage 'troubled employees'.

Cooper (1995) also states that work stressors at an individual level, (i.e. poor mental or physical well-being) impact at the organisational level in terms of low productivity, absenteeism, employee turnover and work related accidents.

For police organisations, these issues must also be important (Peters-Bean 1993) in that fostering and maintaining physical and mental well-being may have implications for job satisfaction, low absenteeism and high productivity.

Although the Police Service has positively responded to the 'shambolic inconsistency' of collating sickness records (Home Office Affairs Committee 1991) by monitoring and accounting for staff sickness, much impetus is needed in promoting a total occupational health ethos, by laying the foundation for, and the mechanisms of, Occupational Health Departments within the police service (Peters-Bean 1990b; Shaw et al. 1993; Silva 1990).

Occupational Health Departments have a vested interest in promoting and maintaining physical and mental well-being in employees. Employee Assistance Programmes (EAPs; see Loo 1987; Wrich 1990; McClellan 1990a; Moriarty and Field 1990) were introduced into US industry (through intervention programmes) to assist with alcohol abuse, but are now considered to encompass other potential problems areas - including stress counselling and stress inoculation programmes.

Much research on stress has focused on the causal aspects of work stress with the aim of preventing or forestalling its consequences (Burke 1988b; Chandler 1990; Cullen 1989; Firth-Cozens and Hardy 1992; Kelloway and Barling 1991).

### **3.1.2. Causal Aspects.**

The causal aspects of stress are not clear and attempts have been made by researchers to uncover the possible origins or precursor of stress, whether it is described as an individual phenomenon; an interactive process between the person and the environment; perceived stress outcomes; or strategies for stress management.

For example, Johnson and Bornstein (1991) point out that even relatively minor stressful life events predict psychiatric and physical disorders. Frequent minor life events (or 'hassles') are more strongly related to mental and physical health (after Lazarus 1981) than occasional major life events.

Warr and Wall (1975), Warr, Cook and Wall (1979) and Warr (1978; 1987a; 1987b; 1990) acknowledge that particular jobs can influence psychological well-being, in terms of physical and mental health. By identifying particular occupational groups with high levels of stress, and by comparing them with similar occupations, insights concerning the causal aspects of stress and/or strain may become clearer - although evidence suggests that these constructs are not mutually exclusive (Sevastos, Smith and Cordery 1992). However, indices of contentment-anxiety and enthusiasm-depression have been established to account for poor job satisfaction and strain amongst employees (see also Kelloway and Barling 1991).

There are different and competing perspectives on the issue of stress; its causes or consequences. It may be that the 'cause' is not evident in any single factor, say, involving physical changes within the body or the psychological dysfunction of the psyche. It may be that there are a number of competing perspectives that must be taken into consideration.

### **3.2. COMPETING STRESS THEORIES.**

The following sections illustrate some of the different perspectives used in stress research: Individual Stress; Physiological Stress; Transactional Stress; Cognitive-Emotional Stress; Type A Behaviours; Life Events; and Psychosocial Stress.

The various perspectives attempt to show the interactive nature of the person with his or her environment and the many possible outcomes that lead to potential trouble for police employees.

### **3.3. INDIVIDUAL STRESS.**

Audits of individual stressors (or stress in organisational contexts, for that matter), are complex. The various approaches taken by researchers are divided in opinion, whether emphasis is placed on Physiological (Stimulus or Response) Outcomes, Transactional Dimensions, Type A Behaviours or Cognitive-Emotional Factors.

It should be noted that 'stressors' have been categorised as external stressors (work and/or domestic related) versus internal (intrapsychic) stressors, and stress responses can be adaptive (Druss and Douglas 1988; Irion and Blanchard-Fields 1987) or maladaptive and pathological (Rippetoe and Rogers 1987) in relation to work performance, coping with stress, appraisal, and coping strategies.

#### **3.3.1. Work Performance.**

As previously stated Cooper (1995) maintains that stress on an individual level has an impact on the employee's workplace in terms of turnover (productivity); transfer; role conflict and/or ambiguity; and argues that these issues may influence performance (Jones and Boye 1992).

Dewe (1991a; 1991b) and Dewe, Cox and Ferguson (1993) refer to the notion that role conflict within a job, role ambiguity and work overload can lead to adverse outcomes for both the employee and employer.

Epstein and Katz (1992) in their study of workload and productivity, report that positive performance and coping with challenges as they arise can have productive consequences. The authors argue that good constructive thinkers carry greater 'productive loads' (defined as the total amount of socially and personally useful activities) than others, without much of an increase in stress symptoms.

There are similarities within police work, for example Band and Manuele (1987) discuss police officer performance in relation to (1) acute or situational stress and (2) chronic stress. The latter stressor is evident when an officer becomes frustrated with departmental processes and related work functions i.e. role conflict between the administration and function of the police.

It was hypothesised that higher levels of perceived competence, self-coping efficacy and self esteem would elicit more adaptive coping behaviour and more effective police performance. Maladaptive coping behaviour would produce less effective work performance.

Diskin, Goldstein and Grencik (1977) have experimented with simulated and naturalistic stress in police officers and found that a lessened anxiety level appeared to facilitate coping with aversive stimuli and leads to anxiety reduction. The authors here imply that being able to cognitively appraise a situation and process more information about the event made for lesser problems in dealing with stressful events.

Larsson, Kemp and Starrin (1988) also support the notion that police officers feel less threatened in stressful situations, are able to appraise the situation as being more solvable, and use more problem focused methods of coping.

### **3.3.2. Coping With Stress.**

It should be noted that the literature on coping with stress is extensive, and that further discussion on this topic will be provided later (Chapter Seven).

For the time being, Dewe, Cox and Ferguson (1993) refer to coping as, 'the cognitions and behaviours, adopted by the individual following recognition of a stressful encounter, that are in some way designed to deal with that encounter or its consequences.'

In relation to work stress, coping is seen as the response to work related encounters that tax an individual's abilities and resources.

Coping implies a highly sophisticated appraisal mechanism. This means that people evaluate an encounter and decide whether the stressor is harmful, represents a threat, or otherwise. This is known as 'cognitive appraisal' (see Lazarus and Folkman 1984; 1986).

### **3.3.3. Cognitive Appraisal.**

Dewe (1991b) discusses the role and importance of appraisal mechanisms in coping with occupational stress. 'Appraisal' here refers to the meaning that individuals give to a particular encounter and is divided into two sub categories: 'Primary' - where an individual recognises that they are under stress; and 'Secondary' - where an individual evaluates the options for coping and marshals their resources to deal with stress. See also Chapter Six for further discussion on the mechanisms of appraisal.

Horowitz and Wilmer (1981) and Horowitz (1993) generally discuss the adaptive value of denial (by pacing the recovery process) when coping with serious life events. Horowitz (1993, pp 50) in particular, refers to denial signs and symptoms as, 'normal ways of modulating emotional responses to serious events into tolerable, time-spaced doses'.

This may be viewed as a facet of primary appraisal where abnormal 'denial' assumes that extreme avoidance of trauma takes place and is characterised by excessive counter measures such as substance abuse and personal recklessness (i.e. thrill-seeking behaviour).

Folkman, Lazarus, Gruen and DeLongis (1986) argue that personality characteristics predispose the person to cope in certain ways that may either impair or facilitate the coping process. In uncontrollable events a person experiences profound helplessness and becomes passive in their coping efforts.

Lazarus (1966), Lazarus (1981), Lazarus and Folkman (1984) also argue that coping has two major functions: (1) enabling a person to deal with the problem that is causing distress (problem-focused) and by regulating emotion (emotion focused). It is further argued by the authors that people generally use both forms of coping in stressful encounters.

Rippetoe and Rogers (1987) discuss adaptive and maladaptive coping in relation to Protection-Motivation theory (cognitive mediational processes which initiate threat appraisal processes and coping appraisal processes). It was argued that the threat appraisal process is used to evaluate factors associated with the response and that the coping appraisal process is used to evaluate one's ability to cope.

#### **3.3.4. Coping Strategies.**

Coping strategies are also the subject of debate in a later chapter.

However, Fain and McCormick (1988) report that officers utilise coping mechanisms which increase their stress rather than alleviate it. It was also argued that police tended to use maladaptive coping techniques such as alcohol, drugs, deviance and cynicism.

Holahan and Moos (1987; 1991) on the other hand, argue that because coping is a factor that helps to maintain the psychological stability of adaption, coping ought to be greatest during periods of high stress. Adaptive personality characteristics such as, self confidence, an easy going disposition and positive family support, were shown to operate over 4 years either directly or indirectly in reducing depressive episodes.

Joseph, Williams and Yule (1992) also support the notion that crisis support from family and friends is associated with lower psychological distress, lower intrusive and avoidant symptomatology, more positive outcomes, and more emotion focused coping styles.

Macrae (1984) argues that coping is determined not only by the person, but also the situation in which they find themselves. Coping is viewed as an event which can be construed as one involving loss, threat or challenge (Lazarus and Launier 1978). These are characteristics of the relationship between the person and their environment.

### **3.4.           PHYSIOLOGICAL STRESS.**

In 1956 Hans Selye outlined the principles of the 'General Adaption Syndrome (GAS)' in terms of stress as a 'non-specific (physiological) response of the body to any demand made upon it' (Selye 1956).

At the first stage of GAS, the 'Alarm Reaction', initial exposure to danger results in increased adrenalin and heart rate and levels of resistance are reduced.

The second stage, the 'Stage of Resistance', is characterised by the disappearance of the apparent physiological changes as the body adapts to the stressor.

The third and final stage, 'Exhaustion' involves a draining of the body's energy required for adaption to a stressor, resulting in physiological collapse.

Selye's notion is based (in behaviourist terms) on responses by an organism to particular stressful stimuli. The organism (in this context, human beings) reacts to the stressful stimuli by initiating a 'fight or flight' response.

### **3.5.           TRANSACTIONAL STRESS.**

However stress is not necessarily the product of efforts to maintain physiological homeostasis (the delicate process whereby the body maintains internal equilibrium). For example, Frankenhaeuser (1980) regards stress as a process of transactions between the individual and environment which may have an influence on the psychoneuroendocrine output of the brain (see also Van der Kolk and Saprota 1991).

Cox and Mackay (1981) also describe a range of events, situations and physical stimuli which can cause problems at work. Transaction between the person and his or her work environment implies a process that is active and adaptive, in that work experiences may be influenced during the cognitive appraisal of stress in any particular situation.

This is based on the notion that a person is continually appraising the demands made upon them by his/her situation and whether they have sufficient ability to meet those demands. 'Demand is used to denote the request or requirement for physical or mental action, and implies constraints with respect to time (Cox and Mackay 1981).'

#### **3.5.1.       Influences On The Person.**

Other stress influences on the health of the individual have been highlighted. For example, Burke and Deszca (1986) report that a number of problems result from exposure to stressors: 'Burnout' (Maslach and Jackson 1981): a syndrome of emotional exhaustion, negative self-esteem, depersonalisation and negative attitudes to people, life, or work, have an impact on illnesses such as such as cancers and heart disease.

Nowack (1991, pp 117) argues that, 'Social support, lifestyle habits, adverse life events, personality, positive and negative affectivity, optimistic cognitions, coping style and job strain have all been consistently associated with immunofunctioning and increased risk of disease.'

### **3.5.2. Influences From The Environment.**

Environmental factors are also implicated in the arousal of the para-sympathetic nervous system, which is in turn, modified by an individual's cognitive appraisal of the meaning and context of stimuli (Schachter and Singer 1962; Schachter 1970).

Reaction to a hostile environment may be dependent on factors such as arousal and environmental-cue. Nixon (1984; 1986; 1993a; 1993b; 1994a; 1994b) for example, discusses the nature of arousal and the onset of coronary heart disease.

### **3.5.3. Social Support.**

The relationship between organisational stress and social support has been discussed by Payne (1980) in relation to the roles and rules governing working relationships.

Members of organisations agree amongst themselves how they will complete tasks and emotional affairs. Payne (1980) divides support into two broad categories: material support and psychosocial support. Material support refers to money, machines and equipment, whilst psychosocial support refers to cognitive, emotional and behavioural strategies for completing tasks.

Turner (1981) maintains that social support is important in fostering psychological well-being, suggesting that it 'buffers' or 'mediates' life stress. The perception of being loved or esteemed, or being able to count on others is an integral part of emotional well-being.

Williams and House (1985) confirm this notion by outlining how health is enhanced by supplying human needs for affection, approval and social contact; secondly, by reducing interpersonal tensions and having other positive effects in the work place; and thirdly, from an interactionist viewpoint, by buffering or modifying the relationship between stress and health.

Aldwin and Revenson (1987) report a longitudinal study of the relationship between coping strategies and psychological symptoms. Eight coping factors were found: three problem-focused, four emotion focused, and one (support mobilisation) factor contained elements of both. They suggest that some coping strategies function to maintain positive mood states.

Buffering effects or modifying effects are important in our notion of social support. For example the concept of 'hardiness' (Kobasa 1982; Kobasa, Maddi and Kahn 1982) or stress resilience has been discussed by Dunegan (1993).

### **3.6. COGNITIVE-EMOTIONAL STRESS.**

Ellis (1978) also argues that stressful conditions do not exist as phenomena in their own right, but are a result of perceptions (cognitions) of the individual. In 'rational-emotive' terms, a set of activating events create a subsequent set of emotional and behavioural consequences. Thought influences feelings and vice-versa (Schachter and Singer 1962; Schachter 1970 and Webb 1990).

The survival value of cognitive or affective states is discussed by Davis et al. (1981) and Allred and Smith (1989) and may be involved in depressive mood states (see Chapter Eight).

Mood states, such as fear, surprise and anxiety, may influence an organisms reaction to the environment, since it is suggested that animals constantly scan their surroundings for potentially hostile stimuli.

However, what is less clear is the survival value of depression. For example, 'Learned Helplessness' (Flannery and Harvey 1991; Seligman and Maier 1967; Seligman 1975) models propose that a trapped animal may also initiate a passive withdrawal from hostile stimuli. 'Anger' may be a defensive posture and 'disgust' serve to ensure the species avoid noxious stimuli.

The biochemical base for such cognitive or affective states has also been discussed (Beech, Burns and Sheffield 1982; Edwards 1988; Gentz 1986; Manning et al. 1988; Solomon 1988; Van Der Kolk 1993).

### **3.7. TYPE A BEHAVIOUR.**

Whether or not an individual reacts to potential stressful situations may depend on behavioural characteristics of the person and their responses to stressors, according to Chesney and Rosenman (1980) and Frankenhaeuser (1980).

'Type A Behaviour' is characterised by hard-driving, goal-directed individuals, who are time-urgent, ambitious and competitive (Friedman and Rosenman 1959). The absence of these behavioural characteristics are usually referred to as 'Type B' patterns.

It should be noted however, that there is no 'pure' Type A or B personality (Burke 1988a; Check and Dyck 1986; Contrada 1989; Dyck, Moser and Janisse 1987; Ivancevitch and Matteson 1984; Janisse, Edguer and Dyck 1986; Nowack 1986 and Spector and O'Connell 1994).

Type A behaviour has also been documented as being associated with coronary heart disease (CHD), cancers and other potentially fatal diseases (Cox et al. 1983; Friedman and Rosenman 1959; House 1974; Violanti et al. 1986) and attempts have been made to study these phenomena in the work environment, over a wide range of occupations. For example, Caplan et al. (1975) quote 23 different jobs (including police officers) where health strain was measured as a deviation from the normal response of the person to stress in terms of psychological or physiological factors.

### **3.8. LIFE EVENTS.**

Evidence has been offered that stressful life events will effect an individual only if certain unfavourable internal or external factors are present (Dohrenwend et al. 1980 - but see also Burke 1988a; Selye 1956) and behavioural dysfunction or illness will usually result.

This does not imply a causal relationship between life events and changes in health or behaviour, but questions whether the measurement of such life events and the severity of the stressor relate to the outcome of stress (i.e. 'strain').



Dohrenwend et al. (1980) hypothesise that the impact of a life event on an individual will be determined by 'learned group norms' concerning the stressfulness of that event.

Perceived stressful life events initiate a set of complex physiological and/or psychological processes which engender strain. Strain; a state of being stressed, may manifest itself by absenteeism, job dissatisfaction, low productivity, poor morale, physical or psychosomatic symptoms.

Maladaptation to occupational stressors may provide further evidence of the onset of psychiatric and medical illness (Brown and Campbell 1990; 1994; Cooper and Bramwell 1992; Firth-Cozens and Hardy 1992; Greller, Parsons and Mitchell 1992).

Payne (1980) argues however, that not all stress comes from the impact of the environment alone, much of stress may arise from predisposition to Type A or B behaviour (See Friedman and Rosenman 1959 previously cited), but 'Strain' (the outcome of stress) occurs as a result of external stressors.

An individual perceives threat as being influenced by either the environment or their own self-doubt (Primary Appraisal), and tries to resolve the strain arising from the threat perception (Secondary Appraisal) by using internal psychic resources at their disposal - see Dewe (1991b); Folkman et al. (1986); Larsson et al. (1988) and McCammon et al. (1988).

Social support activities may assist in reducing stress, for example; identifying the problem; generating solutions; deciding on a solution; planning and organising resources; doing; and altering the plan if necessary; and evaluating results to internalise lessons.

Payne (1987) further argues that organisations exist as psychological environments and stress arises from the effects of jobs on 'role structure' (the degree to which the job is specified) and 'role demands' (what the person is required to do).

### **3.9. PSYCHOSOCIAL STRESS.**

Another variant on stress theory is proposed by Brown (1980) and Levi (1984) who argue that stress is a psychosocial outcome. Cognitive activities may determine emotional states through a mutual interaction between physiological arousal and cognitive appraisal. See also Schachter 1970; Crandall and Putman 1980; De Paulo 1982; Turner 1981; Williams and House 1985. Cognitive activity may be related to physiological arousal, although the evidence for this is weak. Social Stress, however, results from an unfavourable perception of the dynamics of the social environment i.e. how stressful events are perceived by individuals.

### **3.10. OTHER RESEARCH ISSUES.**

Cox and Mackay (1981) discuss the 'economy of description' of various occupational stress studies. They state that a wide range of events, situations and physical stimuli can cause problems at work. Stress is a transaction between the person and his or her work situation.

The word 'TRANSACTION' implies a process that is active and adaptive, in that the experience of stress may be reduced by altering the cognitive appraisal of the situation.

Other authors, Ivancevitch and Matteson (1984), point to the difficulties in using various definitions of the concept 'stress' and the extent to which person-environment interaction defines occupational stress.

### 3.11. SUMMARY.

It is difficult to define 'stress' in simple terms. Stress can be viewed as a combination of activating events or consequences which result in the physiological and/or psychological and/or cognitive-emotional processes, the outcomes of which result in 'strain'.

These outcomes may largely be the result of the interactive nature of the person with their environment, since human beings essentially live in homogenous groups. What is clear about stress is that it leads to the gradual deterioration of physical and mental 'functioning' of an individual, and if not identified and treated rapidly, the outcome (strain) may result in stress-related diseases.

There can be no single work-environment, since work is composed of different activities occurring at differing times, but for the purpose of this thesis a useful definition is advanced by Ivancevitch and Matteson (1984) as:

'[The]...individual's cognitive representation of relatively proximal work-related events.'

Ivancevitch and Matteson (1984) pp 499.

Frese and Zapf (1988) on the other hand, argue that concentrating on the objective environment view of stress was mechanistic and did not take into account the importance of cognitive appraisals of given events. Crucial elements of stress are cognitive and these perceptions, appraisals, coping strategies and personal prerequisites are the focus and role of theory (quoting Lazarus and Folkman 1986).

Questions are also raised about the objectivity of research methods as well as the paucity of longitudinal stress studies. A more dynamic view using multiple measures and designs that allow the study of different causal relationships is espoused.

Although the work by MacDonough (1991) deals mainly with stress in the military context, it similarly provides a guide to various research approaches ranging from Stimulus-based, Response-based, Interactional, Transactional, Psychosocial and Catastrophic (Allinson 1991; Duckworth 1990; Hillas and Cox 1986; Newton 1989; and Vera Waters Associates 1990).

Acknowledging the wealth of information from civilian studies, MacDonough (1991) argues that future research on non-combat stress should focus on, among other things, longitudinal studies and emotional factors.

On the basis of epidemiological evidence from physiological, psychological and medical indices, psychological stressors are seen as the causal precursors of 'strain' (Fletcher 1988), and strain is the state of being stressed.

Fletcher (1988) also suggests that 60% of absenteeism from work has been caused by stress-related disorders and that in the U.K. alone 100 million working days are lost.

Again, this decade has not seen a significant drop in this figure, since the stress at work is on the increase as more demands are made of workers (Cooper 1995 and Stearns and Moore 1990).

## CHAPTER FOUR - POLICE TRAUMA.

### 4. POLICE TRAUMA.

Following on from the previous chapter, which outlined a general theory of stress and which drew some parallels with police stress, this chapter now explores traumatic incidents for police.

For example, Kroes (1988; Chapter One) provides anecdotal evidence of the slow deterioration of a police officer's career, from his initial training to a sequence of events that result in him being prematurely medically retired. His impairment of physiological and psychological functioning is illustrated below.

Following a shooting incident, he develops a wide range of symptoms including sleeplessness, stomach and oesophagus spasms, vomiting and high blood pressure. Also evident is his reports of suicide ideation, loneliness, depersonalised feelings towards his wife, his colleagues and the police organisation itself.

The above example illustrates the kinds of processes that may occur within an ordinary human being having to work in a seemingly extraordinary occupation - where the police officer faces such diverse incidents resulting in unexpected tragedy, violence and the sometimes impersonal treatment by police employers, that psychological impairment and decline seem inevitable.

However, can this picture be said to represent reality for the many or the few?

A cohesive survey of the sources, impact and consequences of sequential trauma states may provide an answer. If we could find a method of predicting the likely troubles that a police employee can anticipate, could we not also provide early intervention strategies, possibly defer premature retirement, or assist the officer in overcoming debilitating problems?

Without such research we are unable to understand why many employees may accumulate gross stress reactions, or acquire Post Traumatic Stress Disorders (PTSD) and the like, and subsequently are compelled to leave their employment early, as a result of ill-health - taking their skills and expertise with them.

Employers are mindful of the notion that they have a 'duty of care' to their employees under the Health And Safety At Work Act 1974 and the Management Of Health And Safety Regulations 1992. And where an organisation fails to take heed of the likely consequences of prolonged and repetitive exposure to trauma, they may be required to answer this shortcoming in future Law Court claims.

It is not implied here that the process of gradual deterioration of functioning is an inevitable facet of police work; but many officers are retiring through non-injury ill-health.

Similarly, the actual stress involved in dealing with a dispassionate public, overbearing media, quixotic justice system and long hours of shift work, are perceived as exacting a toll on police officers performance (Anson And Bloom 1988; Band and Manuele 1987; Beidel 1991; Bonifacio 1991).

The very nature of policing brings officers into almost daily contact with traumatic and distressing incidents, from within and without the police environment milieu (Burke and Deszca 1986; Chandler 1990; Davidson and Veno 1980; Duckworth 1990; Farmer 1990).

In short much has been written and will be written about the nature of policing. However, there has been little systematic study of the effects of prolonged exposure to trauma on individuals (Gersons 1989; Gersons and Carlier 1990). Studies about police trauma tend to concentrate on the outcome of one specific event, rather than taking into account the complex interplay between the final 'straw that broke the camel's back' and the events leading up to it.

Nor has there been detailed and explicit research on the nature and culture of the police job (Grant, Garrison and McCormick 1990); the types of incidents which engender gross stress reactions (Gersons 1989; Golembiewski and Kim 1990; Hill and Clawson 1988) or ultimately, the sequential accumulation of such traumatic incidents and the impact on the individual psychological functioning of the officers engaged in such work (Kroes, Hurrell and Margolis 1974; Larsson, Kempe and Starrin 1988; Martin, McKean and Veltkamp 1986).

#### **4.1. The Occupational Context.**

This is a study about police officers and civilian support staff who accomplish the complex and dynamic business of policing. Daily policing usually involves distasteful circumstances, death, violence, disaster, public disorder and so on (Alexander et al. 1991; Burke and Deszca 1988; Duckworth 1990; Maser and Solomon 1990; McCafferty, Domingo and McCafferty 1990; McCammon et al. 1988; Newton 1989).

Policing as a work activity brings with it some debilitating consequences, such as increased absenteeism from work, disagreements between supervisors and colleagues, the general impairment of the individuals psychic functioning such as depersonalisation, low self-esteem, cynicism, neuroticism and chronic work stress - which can also lead to substance abuse, alcoholism, marital conflict and financial difficulties (Burke 1988a, 1989; Daniels And Guppy 1992; Kirschmann, Scrivner and Ellison 1992).

The onset of physiological symptoms such as asthma, diabetes, coronary heart disease and some cancers may also become apparent. And occasionally other severe psychiatric illnesses may result (Aldwin and Revenson 1987; Allison 1991; Frankenhaeuser 1980; Dunning 1990; Dyck and Stewart 1991).

##### **4.1.1. The Situational Context.**

This brief section sets out the framework for the current study, including some of the terminology that has been applied to the concept of 'sequential traumatisation' (Keilson 1992). It is argued that sequential trauma is relevant to the study of prolonged and repetitive trauma with particular reference to police populations.

Williams (1993) for example, argues that some occupations have, 'predictable and repetitive traumata.' Active military duty and the more common occupations such as the Emergency Personnel (Police, Fire Brigade, Paramedics) are at risk from severe reactions to traumatic events (see Duckworth 1990; Freedy et al. 1992; Goderez 1987; Herman 1992; Hetherington 1992; Hillas and Cox 1986).

However, severe reactions to distress can take many forms, and current thinking suggests that not all traumas lead to post traumatic stress disorders (PTSD; Davidson and Foa 1993; Duckworth 1990; McFarlane 1993).

#### 4.1.2. The Historical Context Of Post Traumatic Stress Disorder.

Post Traumatic Stress Disorder (PTSD) is a major cluster of symptoms which are discussed below in relation to the DSM-III-R (1987) diagnostic criterion, to show the historical context in which this diagnosis is considered. PTSD criterion within the DSM-IV (1994) criterion will be discussed in a later chapter.

The emotional response to traumatic events consist of several interacting factors which might contribute to PTSD.

Specifically, PTSD affect states (DSM-III-R, 1987; 309.89) involve the development of a range of symptoms after a, 'psychologically distressing event that is outside the range of ordinary human experience.' PTSD is evident in events which may induce intense fear, terror or helplessness, such as serious life threatening situations, or serious threat to ones' physical integrity.

Unresolved grief is another factor which may be a major component of acute trauma response (Williams 1993) as are individual differences in personality style, psychological predisposition, coping skills and social support mechanisms.

Some occupations, as in the case of police work, might be termed 'trauma-specific' in that officers are much more frequently involved in hazardous situations (i.e. attending scenes of accidents, being threatened with physical violence) which have a greater traumatic impact than ordinary members of the public (Bonifacio 1991 pp 182-183; Tang and Hammontree 1992).

However, it has been postulated that no truly traumatic event is ever wholly resolved (Horowitz et al. 1979, 1980; Horowitz 1992; Van Der Kolk and Saporta 1993) and that there may be increased vulnerability factors (McFarlane 1990), where individuals are prone to break down later, even where a hazard is restricted to repetition of original (psychic) injury (Joseph, Williams and Yule 1992; McFarlane 1989; 1990; Miller, Kamenchenko and Krasniasnki 1992; Van Der Kolk 1993).

Also, vulnerability might increase proportionately to the extent to which fantasy (Laibow and Laue 1993) or delusional thinking (Chadwick 1992) is associated with the traumatic experience.

#### 4.1.3. Sequential Trauma.

The foregoing points, with references to the relevant literature, highlight difficulties in defining sequential trauma. For example:

1. As a consequence of prolonged and repetitive exposure to particular traumatic stressors associated with war; systematic sexual abuse as a child; rape; torture; being held captive; hostage situations; detention in concentration or labour camps; or other criminal victimisation (Blake, Albano and Keane 1992; Moscarello 1991).

2. As a consequence of prolonged and repetitive exposure to particular traumatic stressors associated with natural or technological (man made) disasters, including re-experiencing similar trauma events; 'anniversary' syndromes; unresolved grief; working with victims of disasters; vicarious traumatization; or having a close association with the victim as a family member or significant other (Alexander 1990; 1993; Alexander and Wells 1991; Duckworth 1990; Hetherington 1993; McFarlane 1988;1990).
3. As a consequence of prolonged and repetitive exposure to particular traumatic stressors associated with trauma-specific work, including the Emergency Services; Soldiers and other Combatants; The medical profession (Surgeons, Doctors, Nursing Staff, Forensic Pathologists etc.); Undertakers and Body Handlers etc.(Alexander 1993; Allinson 1991; Choy and De Bosset 1992; Duckworth 1990; Gersons 1989; Herman 1992).
4. Or, as a consequence of prolonged and repetitive exposure to particular traumatic stressors where the trauma has occurred on more than one occasion, including repeated exposure to similar traumatic events or further (unique) traumatic events (Gersons and Carlier 1990; Peters-Bean 1990b, 1996; 1995; Williams 1987, 1993).

The term 'sequential traumatization' as per point 4 above is being used to describe the general characteristics imbued in the sequential nature of trauma and is adopted throughout this text.

Sequential trauma as a phenomenon has received little attention from researchers in the past (Gersons and Carlier 1990; Hetherington 1993).

Much of the conceptualising has focused implicitly on the particular outcomes of severe trauma, such as PTSD (DSM IIIR, 1987) or other anxiety states associated with the cumulativeness of stressors, such as those elicited within 'post-traumatic decline' (Titchener 1986) or 'burnout' (Reese 1986).

PTSD experiences are often repeated in the traumatic event as 'intrusive ideas accompanied by unbidden feelings.' The repetition or rehearsal of the trauma is also characterised by avoidance or denial states, psychogenic numbness, unresponsiveness or reduced involvement with the external world (Horowitz 1993). Physiologic symptoms of aggression, uncontrolled rage or moods, hyperalertness, or physical reaction to anything resembling the original traumata must also be evident.

However several important assumptions have arisen which have not been empirically tested. Firstly, how does trauma become sequential? Is it acquired over a time period or is it the result of one overwhelming event after another (Keilson 1992)?

References have been made, in the literature, to trauma events: 'not specifically anchored to a specific occurrence but to the particular qualities of conscious experience that encompasses all events (Horowitz 1978).'

Horowitz (1979, pp 209) also refers to a 'Specific traumatic life event over a long period of time...used repetitively and anchored to the same psychological trauma over the time span.'

However, Horowitz (1993, pp 55) contradicts himself further by referring to, 'a latency period of months or even years may intervene between the stressful life event and the maximum symptomatic response.' Further evidence is provided from studies of combat, for example (Schwarzwald et al. 1987 and Solomon 1990) where the 'impact of events' has measurable affect on soldiers some 12 months after the event (The 1982 Lebanon War).

The above quotes exemplify the discrepancies in describing either a traumatic event with one major outcome, or multiple exposure to trauma events which might have very specific outcomes.

For example, Van der Kolk (1988) and Van der Kolk and Saporta (1993) conclude that little is known about the long-term impact of childhood trauma, or its relationship to adult psychopathology. Fixation on trauma and voluntary re-exposure to trauma events, remain similarly misunderstood. Information is also lacking about predisposition and personality factors, the efficacy of crisis intervention, integration and resolution of trauma.

It would seem that there is scope for addressing the process of sequential traumatising and the nature of prolonged and repeated exposure to traumatic events, with particular reference to police work.

#### **4.1.4. Frequency Of Traumata.**

There is also scope for attempting to uncover why the processing of these events, which are of some magnitude, may be dependent on how frequently officers are exposed and for how long that exposure takes place.

For example, Williams (1993) argues that 'multiply traumatised people' enter the recovery phase of trauma at a higher physiological and psychological level of tension, where re-exposure or additional stressors might involve bypassing the immobilisation phase of trauma, have some elements of denial, and move onto the impact phase of responsiveness. Persons who have not successfully resolved previous traumatic encounters effectively 'stair-step' to more pathological and distressing reactions to the new experienced event).

As Titchener (1986; page 18) asserts, 'massive psychic traumata are capable of devastating even the most secure and mature. These experiences, particularly when they are not worked through after the initial shock, often eventuate in a chronic symptom we term post-traumatic decline, which results in the removal of the person from meaningful participation in family, society, work, and all forms of gratification.'

For the police, a slow erosion of the mechanisms involved in experiencing traumatic events and the cognitive appraisal and coping strategies may lead to more subtle and pervasive outcomes. It may be that it is not a single event which manifests itself in severe anxiety, but multiple exposure which exacts its toll.



#### 4.2. SUMMARY.

In brief, police work has been proposed as being particularly complex and demanding. It was also proposed that police groups may encounter prolonged and repetitive traumatic events, on a more frequent basis (Kulka and Schlenger 1993 pp 149).

It was argued that sequential trauma better describes a sequence of trauma events which engenders extreme stress reactions, such as PTSD and the like, but that PTSD as a diagnosis was inadequate since they focused primarily on one major event and one possible outcome.

The diagnostic criteria of PTSD described a 'psychologically distressing event that is outside the range of ordinary human experience' (DSM-III-R 1987). But it will also be argued that PTSD diagnosis criteria for police fails to take into account the cumulative effects of stress over a period of time, and secondly that some police personnel may be constantly exposed to events that are outside the range of ordinary human experience and therefore fall out of the catchment area for this diagnosis (Davidson And Foa 1991; DSM-IV 1994; Duckworth 1990; Herman 1992; Laub and Averhahn 1993 and O'Donohue and Elliott 1992).

Sequential trauma is therefore a more useful concept to delineate multiple traumatic event exposure from single traumatic event exposure and the following chapters will outline this notion in greater detail.

## CHAPTER FIVE - EXPOSURE TO TRAUMA.

### 5. EXPOSURE TO THE TRAUMATIC DOMAIN.

Recent developments in the diagnosis of PTSD (DSM-IV 309.81; American Psychiatric Association 1994) has indicated that the stressor need not be 'outside the range of usual human experience' (as in DSM-III-R; 1987).

Rather, the etiological link to trauma now includes: 'The development of characteristic symptoms following exposure to an extreme traumatic stressor involving direct personal experience of an event that involves actual or threatened death or serious injury, or other threat to one's physical integrity; or witnessing an event that involves death, injury, or a threat to the physical integrity of another person; or learning about unexpected or violent death, serious harm, or threat of death or injury experienced by a family member or other close associate (Criterion A1).

The person's response to the event must involve intense fear, helplessness or horror (Criterion A2).

The characteristic symptoms resulting from extreme exposure include:

1. Persistent re-experiencing of the event.  
(Criterion B);
2. Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness.  
(Criterion C);
3. Persistent symptoms of increased arousal.  
(Criterion D);
4. The full symptom picture must be present for more than 1 month.  
(Criterion E);
5. The disturbance must cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.  
(Criterion F).

If trauma is taken to include the definition proposed in Criterion A1 or A2 above then further problems arise. For example, Bromet (1990) argues that the complex nature of extreme situations (natural and technological disasters; war; violent crime and so on) and the assessment of what constitutes a traumatic event poses certain methodological difficulties. These include:

1. Identifying the constellation of events triggered by the crisis so that psychiatric effects may be related to all aspects of the trauma.
2. Ascertaining the level of involvement or severity of the traumatic experience for each exposed individual.
3. Determining the context in which the crisis occurred with respect to extant social and physical environmental conditions.

Bromet (1990) pp 1719.

Choy and De Bosset (1992) echo the above concerns. The link between trauma and the onset of PTSD has been the subject of much debate, primarily concerning the importance of the role of the traumatic stressor and other premorbid factors (Newman 1987). In some cases it is hypothesised that PTSD symptoms may be apparent without first encountering a traumatic incident (Scott and Stradling 1994).

### **5.1. Traumatic Stressors.**

The presence of the traumatic stressor, although necessary for the initial diagnosis of PTSD, is in itself insufficient to cause it (Davidson and Foa 1991; Duckworth 1990; Scott and Stradling 1994; Wolfe and Keane 1990; Wolfe and Mosnaim 1990). The interaction of many other factors need research and clarification: the type of stressor; the individual's personality; the social environment of the traumatic and post-traumatic period.

For example, McFarlane (1990) has stated that premorbid factors of introversion, neuroticism, family history of psychiatric disorders were found to be significant risk factors in the onset of PTSD.

However, exposure to the traumatic domain leads to further tantalising questions: why is it that some people are affected by trauma and others not; are some individuals more prone and are some groups more 'at risk' than others (the Emergency Services and combat soldiers, for example); is the magnitude or severity of the traumatic stressor an important factor; and does what went on before the trauma have an important bearing?

In other words, there is a need to unpack the processes involved in trauma, the onset of symptoms, and the subsequent implications for post-trauma work.

Presumably there is a notion that normal healthy individuals need not encounter traumatic stimuli during their lifetime, whilst others are particularly vulnerable (or more predisposed) to traumatic experience.

Thus the onset of severe disorder affects resulting from traumatic experience would seem to be more than just ill-luck - minor life events may impact on the accumulation of trauma and subsequent reaction may be just as severe as encountering a single major life crisis (Bowers 1987; Dohrenwend and Dohrenwend 1980; Johnson and Bornstein 1991; Nakano 1989).

### **5.2. MODELS OF TRAUMATIC EXPOSURE.**

The literature concerning exposure to trauma is complex and illustrative. However for the sake of parsimony (at this stage of the discussion) it is necessary to outline a brief model of trauma as a linear event, on a continuum from minor hassles to extreme range stressors. These are differentiated as either 'one event' or 'multiple event' models of exposure to traumatic events and are described below.

#### **5.2.1. One Event Models.**

As stated previously, other authors have studied particular dimensions of trauma, such as acquisition, appraisal, coping and so on, in isolation and usually as one-event catastrophic models. Few authors, with the exception of Horowitz (1992) and Gersons (1990), have attempted to illustrate the whole range of trauma - from the initial impact of trauma acquisition, the appraisal of that trauma, coping with it and the aftermath or outcome post-event.

### 5.2.2. Multiple Event Coping.

For police officers, there may be long lasting affect states produced by prolonged and repetitive exposure to trauma events - which may lead to more negative or maladaptive outcomes.

As a police officer accumulates trauma experience, as a result of being exposed to multiple traumas, he or she either may cope adaptively or maladaptively in discreet ways. They may oscillate between an adaptive trauma incident in one particular scenario and a maladaptive reaction in another. There may even be a time when they can no longer invest in likely adaptive coping strategies - to offset the effects of trauma itself - and, in extreme circumstances, a trauma event may be perceived as being wholly maladaptive.

To put it simply, officers dealing with certain kinds of events, (seen as a necessary part of their working lives) may view the trauma incident as being relatively short lived with its affects decaying over a period of time.

Unique or previously unencountered events might lead to distress for a short period of time, until the officer returns to their 'normal' routine. Yet, as they pass into the sequence more than once, they enter ('stair-step'; Williams 1993) into the recovery processes at a higher level of physiological or psychological functioning. The affect states might become cumulative and severe, due to associations with encounters more typical in maladaptive coping.

What makes for coping in one trauma incident and not in another?

### 5.2.3. Traumatic Signatures.

It is hypothesised that the trauma encounter might involve lessons learned from similar and previous encounters, since 'information processing' theorists suggest that encounters leave behind some residue which is integrated into the personal experience and psyche of the individual (Janoff-Bulman and Timko 1987; Janoff-Bulman 1989). This influences one's mental picture of the world and how we assimilate and learn from novel experiences to add to our store of knowledge.

Is it possible to form a mental schema (or 'traumatic signature' as it is termed here) which is associated with trauma events which are similar in nature? Thus individuals who repeatedly encounter similar, resolvable and well rehearsed trauma events elicit a low sequential affect state:

'...The fireman is not devastated by the sight of a burning building, and the surgeon with his nursing staff in the hospital Casualty department is not thrown off balance by the sight of appalling injuries and loss of blood. Although, moments like these have a shock element in them, they are nonetheless cloaked, as it were, in a certain working routine enabling staff to hold on to their sense of still having a physical and mental grip on what is happening around them.'

Gersons (1990) pp 8.

The existence of schemata is not a new idea. Lazarus and Folkman (1984 pp 23) maintain that in order to understand the cognitive appraisal process - which helps us to survive potentially hostile situations, people must learn to distinguish threat from safety:

'These distinctions are often subtle, complex, and abstract and depend on a highly versatile and efficient cognitive system made possible by the evolution of a brain capable of symbolic activity and powered by what we have learned about the world and ourselves through experience.'

Lazarus and Folkman (1984) pp 23.

Cognitive appraisal mediates reactions to events and reflects the unique and changing relationship between the person and his or her environment. Lazarus (1982) for example, has maintained that cognition not only precedes emotional reactions but is the principal agent in bringing them about.

Similarly Schachter and Singer (1962) and Schachter (1970) have argued that environmental factors are implicated in the arousal of the parasympathetic nervous system, which is in turn, modified by an individual's cognitive appraisal of the meaning and context of stimuli (Schachter and Singer 1962). Reaction to a hostile environment may be dependent on factors such as arousal and environmental-cue.

Meaning and subjective analysis of our personal (intra-psychic) knowledge of the world, helps integrate or reintegrate experience into schemas. Schemas assist in modulating current experience.

Matthews (1993), for example reports an experiment in which there are apparent biases in information processing. In 'selective processing' depressed subjects did not recall all negative information, but only recalled negative information that has been encoded in relation to themselves. When Subjects were asked to decide if the same cue words described an acquaintance, they then recalled more positive adjectives than negative ones (See also Dunegan 1993).

It has been hypothesised here that 'selective processing' of information which is related to one's intra-psychic view of the world, might also influence traumatic encounters (Janoff-Bulman and Timko 1987) and hence build 'traumatic signatures' relating to those events.

#### **5.2.4. Kindling Phenomenon.**

Another variant on information processing in traumatic situations is fostered by the notion referred to as the 'Kindling Phenomenon' (Post and Ballenger 1984):

'(Which) results from repeated electric or pharmacologic stimulation, in which long-lasting, or even permanent change occurs in neural excitability in certain areas of the limbic system (or possibly in the locus ceruleus of the midpons) with resultant behaviour and/or emotional manifestations not only as a result of ictal phenomena but also from chronic interictal personality change.'

McCafferty, Domingo, McCafferty (1990) pp 546.

Van Der Kolk (1993) also, argues that it is possible that similar kindling phenomena occur when people are repeatedly traumatised, or when one traumatic event is followed by intrusive re-experience. Trauma may therefore lead to long lasting neurobiological and behavioural changes.

Prior knowledge of traumatic encounters may be integrated into assumptions about the external environment and internal belief systems as unique 'signatures'. Thereafter neurobiological mechanisms may modulate or reinforce that experience. On repeated encounters both cognitive appraisal and neurotransmitter influences can lead to either adaptive or maladaptive outcomes for the victim.

It is argued in the current study, also, that transactional forces influencing the person-environment context of trauma can lead to either systematic desensitisation of the effects of trauma, or may lead to a situation describing 'learned helplessness' (Seligman and Maier 1967; Seligman 1975; Flannery and Harvey 1991).

Perhaps similar experiences serve to reinforce the trauma signature and reassure the officer that, since they have dealt with a comparable situation before, and have coped reasonably successfully in the past, they will be more able to deal with such incidents now and in the future.

Alternatively the trauma signature might lead to feelings of helplessness, frustration, fear or other overwhelming emotions and thus disables usual appraisal and coping mechanisms.

Schemas will therefore operate in the form of a unique 'traumatic signature' for that individual - from which the victim (perhaps subconsciously) deduces that future coping will be more adaptive than not. Evidence for this notion has also been outlined by Nixon (1984; 1986; 1993b; 1994a; 1994b):

'Biologically, health and survival depend upon the individual's ability to defend the orderliness of his internal systems against environmental challenges which are high and prolonged in periods of change, uncertainty and turbulence. The defensive forces consist of the homeostatic power of self-regulation, and the personal and social skills required for evading or outwitting challenges that might overwhelm homeostatic competence. The strength of the defence varies from time to time and differs between individuals.'

Nixon (1993b) pp 468.

Whilst Nixon talks primarily of a biological model of homeostasis (based on cardiological studies of CO<sub>2</sub> output and the depletion of alkaline buffering systems associated with 'effort syndrome' (Lewis 1918), there is a general agreement that support systems are dependent upon coping ability, adaptive ability and homeostatic integrity.

#### **5.2.5. Signature Strength.**

In the event that the signature is well-formed and strong, the outcome will be mostly adaptive. In this case the homeostatic balance will be favoured in terms of physiological equilibrium as well as an improved psychic response: i.e. more positive assets associated with the traumatic encounter (Nixon 1993b).

In the event that the signature is ill-formed and weak, the predicted outcome will be detrimental to psychological or physiological functioning and efforts to maintain homeostatic equilibrium will be limited to resolution within a limited context.

Traumatic signatures exist to help reintegrate past experience into the present dilemma (see Janoff-Bulman 1989).

Officers may then, depending on the strength of the signature, alternate between adaptive and maladaptive traumatic events, until the signature itself no longer provides comfort, understanding, or the ability to resolve the noxious stimuli. In these cases, the officer may dissociate themselves from the trauma event.

#### **5.2.6. Dissociation.**

The presence of a traumatic signature also has implications for avoidance strategies. Avoidance has been historically viewed in terms of repression or denial (Druss and Douglas 1988; Janoff-Bulman and Timko 1987; McFarlane 1992), either in an adaptive or maladaptive sense.

However, trauma symptoms associated with PTSD (DSM-IV 309.81; American Psychiatric Association 1994), i.e. persistent avoidance of stimuli associated with the trauma, might be explained purely as a dissociative mechanism of defence (Bloch 1991):

`Dissociation is an efficient defense. It performs a variety of functions, including (a) the encapsulation of the memory and affect of trauma (b) the containment of unacceptable or risky impulses particularly aggression, suicidality, and sexuality) (c) the accommodation of extremely discrepant affect and information (d) the protection of `secrets' from disclosure (e) the containment of `toxic introjects' that develop in response to brutality by primary attachment figures (f) the development of specialised adaptive competencies that otherwise would be inhibited by traumatic experience.

Bloch (1991) pp 88.

It is hypothesised here that an important feature of a strong trauma signature is that it protects an individual from further psychological harm.

#### **5.3. SUMMARY.**

Cognitive defences are a major issue in the diagnosis and treatment of extreme range stressors associated with trauma.

These issues will be explored in the following chapters which unpack the separate (though not mutually exclusive) processes involved in trauma acquisition and resolution.

It was argued that these phases and many more have to be resolved as part of the `little picture' (i.e. the independent elements of trauma) in order to have a successful outcome for the `bigger picture' (the whole effect) of trauma itself.

Few of these stages, if any, can be short-circuited: previous authors have outlined the notion that one cannot move from the trauma to a healthy outcome by bypassing any of the subtle elements involved (Horowitz 1993) though other authors (Titchener 1986; Williams 1993) disagree.

Similarly, it was argued that 'traumatic signatures' might assist an individual to negotiate each of the processes involved in trauma: and thus may mediate between the trauma; appraisal; coping; outcome and so on.

The next sections will take a closer look at the processes involved in the 'little picture' of trauma and will provide further evidence for traumatic signature theory and its operation on primary and secondary appraisal; problem focused and emotion focused coping; and the outcome or resolution (viewed as transactions between the work environment and the individual).



## CHAPTER SIX - APPRAISAL.

### 6. APPRAISAL OF TRAUMATIC EVENTS.

Recall that the first process involves encountering extreme range stressors, as part of the trauma. The next stage of trauma acquisition, it is argued, begins with the appraisal of the event which goes beyond the normal range of individual or organisational stress.

There is a growing number of psychological articles which describe the traumatic nature of police work (Bonifacio 1991; Chandler 1990; Kroes 1988; Miletich 1990) and acknowledge the wealth of information available to researchers using officers' own accounts, empirical measurement, journal articles and other complex and rigorous reports.

It is suggested here that whilst they concentrate largely on some of the distressing aspects of police work, they do not acknowledge the full extent and impact of one particular aspect of trauma - the prolonged and repetitive exposure to any and all such traumata and the likely sequential affects.

Current psychological literature has been examined in order to argue for a more comprehensive model of eliciting and defining the nature of the events that engender anxiety and distress in policework.

#### 6.1. PTSD (DSM-IIIIR).

Recall also that Criterion A of PTSD (Diagnostic And Statistical Manual Of Mental Disorders, American Psychiatric Association, Third Edition Revised 1987; DSM-IIIIR), states that the traumatic event must be of considerable importance to the person: i.e. 'outside the range of usual human experience' (usually acknowledged as the property of the traumatic event) and 'markedly distressing to almost anyone' (or the individual's appraisal of the event) - see Davidson and Foa (1991) and O'Donohue and Elliot (1992) for discussion of these issues.

The issue of the incompleteness of the DSM-IIIIR diagnosis was previously discussed in Chapter Five with particular reference to policework (see Scott and Stradling 1994 and Duckworth 1990).

This issue is expanded upon below, by contrasting DSM-IIIIR with the more recent PTSD (DSM-IV; American Psychiatric Association 1994) criterion.

##### 6.1.1. PTSD (DSM-IV).

The more recent PTSD diagnosis (DSM-IV 309.81; American Psychiatric Association 1994) has indicated that the stressor need not be 'outside the range of usual human experience' (as in DSM-IIIIR; 1987).

Rather, the etiological link to trauma now includes:

1. 'The development of characteristic symptoms following exposure to an extreme traumatic stressor involving direct personal experience of an event;
2. Witnessing an event that involves death;

3. Learning about unexpected or violent death, serious harm, or threat of death or injury experienced by a family member or other close associate.

(Criterion A1)

In the case of the police, this distinction is not always clear, since it is highly likely that police officers have had, 'direct personal experience'; or were involved in, 'witnessing an event'. Occasionally they will have learned about significant others' trauma events, all of which would almost certainly contribute to PTSD-like states.

But the number of incidences of trauma exposure for police may greatly differ from ordinary members of the public.

Duckworth (1990) raises some important issues about the nature of psychological harm and attempts to further clarify the differing aspects of trauma within the police setting:

1. Any given incident is likely to be made up of a number of different 'facets'.
2. Extreme incidents do not necessarily create 'trauma'.
3. The initial extreme event is by no means the only potential source of problems.
4. A 'normal' post-traumatic stress reaction is not in the first instance the same thing as a 'post-traumatic stress disorder' (PTSD).
5. A post-traumatic reaction, regardless of whether or not it meets the criteria for PTSD, can involve more than just 'anxiety'.

Duckworth's argument is that police officers may exhibit PTSD-like states, but not necessarily PTSD (in accordance with either diagnostic criterion contained in DSM-III-R 1987 or DSM-IV 1994).

This may be due a variety of factors such problems associated with the nature of the diagnosis itself, which is event-focused or stressor-specific.

Further, there can be no assumption that clinically significant psychological syndromes are ultimately discrete, with clearly defined boundaries, such as PTSD or other anxiety disorders.

#### 6.1.2. 'Normal' Responses.

McFarlane (1990) argues that clarification of the role of personality factors in the etiology of PTSD have been subject to much debate as to what constitutes a 'normal' response to an extremely traumatic event.

For example, in a study of an Australian bushfire disaster, of the 469 Firefighters who attended there was, 'a significant group who were not particularly distressed' (McFarlane 1988). But for some persons the more intense and prolonged exposure to the disaster, the greater the intensity of the phenomena (McFarlane 1993).

Alexander (1991) also argues that specific incidents in which police are involved (dealing with traffic accidents or violent encounters) were reported as being 'stressful' but only for a short time. There were no significant clinical levels of anxiety or depression.

Criterion A (DSM-III-R, 1987) or Criterion A1 (DSM-IV 1994) therefore, represents a flaw in the overall diagnosis of PTSD. Researchers or clinicians report confusion over what constitutes 'normal' responses for some groups.

#### **6.1.3. Diagnostic Criterion.**

A further variant on the Criterion A or A1 debate, and in the diagnostic validity of PTSD in general, is that the constellation of symptoms must all be present before the clinician can draw his or her conclusions.

However, as previously mentioned, encountering a one time significant trauma event may engender PTSD symptoms or not, but it is reasonable to suggest that officers encountering multiple trauma events may exhibit PTSD, or one or more symptoms of PTSD, without necessarily developing 'full-blown' PTSD itself.

For the clinician, therefore, PTSD diagnosis typically focuses on one event of major importance to the individual, whereas it is not unreasonable to assert that police officers may be exposed to any ongoing number of potentially traumatic events.

Similarly, civilian staff may experience the impact of traumatic events first hand (i.e. Forensic examination of the scenes of crimes, Photographers, Communications or Dispatch) or through 'vicarious traumatisation' (McCann and Pearlmann 1990) by being involved in the administration process of compiling, say, complex homicides or child abuse cases for presentation in Courts.

Thus a distinction must be made between one-event models of trauma (first time; first hand) and multiple event models of trauma which incorporate aspects of prolonged and repetitive exposure to trauma.

#### **6.1.4. Specific-Task Trauma.**

Distinctions may also be made between groups of police officers who are at a high-risk of exposure to trauma because of their 'front-line' tasks (officers who typically work alone or in pairs during daily patrols or as groups in, say, maintaining public order) and others at high-risk of exposure to trauma because of the 'specific-task' associated with their Department or Branch (i.e. Dog Patrols, Mounted Branch, Thames River patrols, Obscene Publications Branch and so on).

Distinctions may also be made between groups of civilian staff who have a high-risk of exposure to trauma because of their 'front-line' tasks (i.e. Scenes Of Crimes; Photographers; Forensic Scientists; Traffic Wardens and so on) and others at high-risk of exposure to trauma because of the 'specific-task' associated with their Department or Branch (i.e. working in complex administrative functions, or as clerks in Area Major Incident Pools; Communications or Dispatchers) - or who work in close proximity with operational Officers.

This notion of specific task trauma is underpinned where an individual has experienced a string of traumatic events during the normal course of their work (Gersons 1990).

Titchener (1986) has also referred to 'post-traumatic decline' as a gradual crumbling away of the personality - due to prolonged exposure to trauma.

Williams' (1993) notion of 'multiply traumatised people' - meaning persons who persistently experience other traumatic events, also lend weight to the argument that multiple events are complex and subtle. PTSD itself may become 'complex' as a syndrome of surviving long term and repeated trauma (Herman 1992) - such as being held hostage or in captivity - but inadequately describes other PTSD states affected by long term exposure to many and differing events.

In short, 'usual human experience' may refer to an event of significance to the individual but will not account for the constant acquisition of traumatic, multi-event experiences.

It may also describe only specific-task aspects of trauma and ignore the dimensions of trauma experienced in non-work activity (i.e. domestic settings).

Or it may explain trauma for a specific population of officers and ignore the civilian support staff who work alongside the police in many spheres of operational activity.

#### **6.1.5. Proximity And Magnitude.**

The appraisal of traumatic events ultimately depends on how near one is to the actual event itself. In a post-disaster study of a building explosion at Greenville, North Carolina and a series of tornadoes which hit Pitt County (McGammon et al. 1988), the magnitude of the event and the proximity of the emergency workers to the event, were taken into consideration (i.e. - whether they were site-workers at the scene of the explosion/tornado or whether they were hospital workers remote from the scene).

With regard to the explosion, hospital workers displayed minimal stress affects, whilst 47 out of 53 site workers displayed PTSD symptoms.

With regard to the tornado however, nearly three times the number of PTSD symptoms were reported for both tornado site and hospital workers. There were no significant differences reported for the numbers of symptoms within both groups.

The magnitude of the event seemed to have an effect on some workers and not others, perhaps due to confounding factors associated with proximity to the event (site workers or hospital workers), or the perceived scale of the event itself (technological disasters such as the explosion in contrast to natural disasters such as the tornado).

#### **6.2. APPRAISAL.**

The perceptions of the individuals or groups involved in the trauma, at the primary appraisal phase, may assist in the negotiation and/or resolution of the trauma.

Primary appraisal involves judgements about the traumatic stimuli (Lazarus and Folkman 1984) i.e. the meaning ('seeking of meaning') individuals give to a particular encounter (Dewe 1991).

For example, an analysis of coping, using Coping Inventory indices (Horowitz and Wilner 1981) has revealed that four factors might assist in the resolution of trauma states. These are: seeking of meaning; regaining mastery through individual action; regaining mastery through interpersonal action; and philosophical self-contemplation.

Such control or mastery over the traumatic event may be immediately beneficial or subjected to time or other psychic distortions.

For example, Flach (1990, page 39) postulates that a patient may not react immediately to an event but may, 'continue to feel and behave as if he or she has managed to survive stressful events unscathed, thus failing to experience the emotional dimensions of the experience, minimising the chances to learn from it, and increasing vulnerability to the disruptive power of subsequent stressful events of the future.'

On the other hand, experience of a single, intense and all consuming event may be similar in effects to multiple experiences where the trauma was less intense and where the intrusive images are only mildly experienced (Horowitz, Wilner and Alvarez (1979).

The primary appraisal mechanism may therefore serve to reduce or increase the magnitude of perceived trauma associated stressors. In other words, the magnitude of the trauma may be relatively unimportant as a stimulus referent, but may predispose the individual to master or fail to control the other management processes involved in coping.

The magnitude of the trauma is not as important as the management of the trauma.

Thus, it does not make sense in the case of police officers (and perhaps other Emergency Workers) to talk about PTSD-like states within the context of a single (one-event) traumatic experience.

Indeed these particular populations may report PTSD-like symptoms for one event but are also able to recall specific events going back over a number of years, which may add to the impact of those events.

#### **6.2.1. Intrusion And Avoidance.**

With particular reference to PTSD (DSM-III-R; 1987) and the symptoms of intrusion of thoughts and images and avoidance of reminders the original trauma, Davidson and Foa (1991) refer to the intrusive symptoms as being intermittent and phasic - specific to PTSD, whilst the avoidant/numbing clusters constitute phasic avoidance of trauma reminders, which are again specifically related to PTSD.

The DSM-IV (1994) criterion of persistent re-experiencing of the event (Criterion B); and persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (Criterion C) may also be subject to Davidson and Foa's (1991) conclusions. It would seem therefore that PTSD diagnosis is a 'self-fulfilling prophecy' in that the syndrome has evolved as a pattern of symptoms which closely match clinical observation of a number of victims, and has failed to take into account other disorders or syndromes associated with extreme range stress (i.e. such as brief reactive psychoses or traumatic neuroses).

For example, much has been written about intrusion and avoidance in recent years (see for example Horowitz et al. 1979 above; Horowitz et al. 1980 and Horowitz 1993). However, it is not clear how the processes of intrusion and avoidance differ within a one event model of trauma and multiple event models of trauma - and whether this may disrupt the retrieval of trauma memory.

#### 6.2.2. Retrieval Of Trauma Memory.

Laub and Averhahn (1993) question the concept of 'knowing and not knowing' trauma. Trauma both disrupts the link between the Self and the empathic other and untangles the relationship between Self and nurturing other:

'It is the nature of trauma to elude our knowledge, because of both defence and deficit. The knowledge of trauma is fiercely defended against, for it can be a momentous, threatening, cognitive and affective task, involving an unjaundiced appraisal of events and our own injuries, failures, conflicts and losses.'

Laub and Averhahn (1993) pp 288.

Repetitive trauma (Lothane 1986) can leave scars in the form of traumatic memories of suffering and pain and can form a '...reflexive, stereotyped, automatic and habitual way of responding to a traumatic stimulus, or stimuli resembling it in some manner, after such a response was once conditioned in a previous situation of trauma and then became compulsively repetitive.'

Involuntary retrieval of traumatic memories are the hallmark of PTSD as well as other syndromes. Intrusive thoughts, flashbacks and nightmares may serve to reinforce the symptom picture of post trauma responses, but may not accurately reflect the complete diagnostic criterion.

Similarly, the fact that the patient is re-experiencing the phenomena also implies that cognitive representations of the trauma are evident (Eth 1986; Eldridge 1991; Zeitlin and McNally 1991) in both the victims' recalling of the trauma and the therapist's clinical assessment of traumatic experience itself.

If traumatic forms of memory serve to reinforce the nature of the original event, and contribute or partially contribute to PTSD-like symptoms then reverse effects may also be apparent.

An officer experiencing prolonged and repetitive exposure to trauma events which are similar (i.e. because they have certain characteristics in common) may actually learn to 'habituate' to the affects of those events. As an example, it may be that Traffic Officers, who daily process quite distressing stressors during accidents involving serious injury or death, may learn to overcome the negative affects of the trauma quite quickly.

However, if the same Traffic Officer experiences an event which is truly outside their 'range of usual human experience' then they may not be able to negotiate the complex processes of appraisal, coping and outcome in a positive manner.

The reaction to these events, although distressful at the time, may be more akin to 'brief psychiatric episodes' or 'disorders of extreme stress not otherwise specified' (DESNOS; Herman 1992) associated with a single incident of trauma: intense, but short lived.

For example, in a study of 306 Traffic Officers, Hetherington (1993) reported that their 'Impact Of Event' scores revealed a high incidence of avoidant behaviour and intrusive thoughts - reflecting the fact that the officers may not be able to completely process and/or recover from the event.

Hetherington (1993) also reported that many officers contend that their trauma and suffering left no adverse effect - but her study did not clarify whether the trauma referred to was a single incident, or the result of multiple trauma exposure.

Multiple trauma exposure may involve 'complex PTSD affect states' similar to those described by Herman (1992), previously mentioned: the inherent distress associated with some types of trauma may increase the magnitude of particular symptoms and not others.

It is not suggested here that attending multiple motorway accidents is construed as being similar in nature to repeated physical or sexual abuse - but where police officers face multiple exposure to trauma, further questions must be posed. Are the psychological symptoms similar in effect due to repeated exposure to trauma? And are the 'complex PTSD' symptoms confined to some types of trauma and not others - and thus inappropriate to the diagnosis of full-blown PTSD?

Therefore, Herman's (1992) notion that DSM-IV should include 'Disorders Of Extreme Stress Not Otherwise Specified' (DESNOS) is entirely appropriate to occupations where prolonged and repetitive stress is likely. Moving away from clinical diagnoses of PTSD, it confirms that sequential traumatising may now be the more appropriate area for exploration and research.

Multiple trauma events might possibly affect primary appraisal and restrict the range and impact of trauma acquisition. The difficulties in retrieving trauma memory may also involve a specific process that negotiates the outcomes of trauma resolution, through moderating or 'buffering' effects. And buffering effects may also be modulated through 'hardiness' or stress resilience (Kobasa 1982; Kobasa, Maddi and Khan 1982; Kobasa, Maddi and Puccetti 1982) or in maintaining internal or external 'locus of control' (Rotter 1966; Spector and O'Connell 1994).

### 6.2.3. 'Hardiness'.

Allred and Smith (1989) have reported a study of the relationship between the 'hardy personality' and cognitive and physiological responses to evaluate threat, and assert that such scales inadvertently measure dimensions of neuroticism.

Hardiness (Kobasa 1982; Kobasa, Maddi and Khan 1982; Kobasa, Maddi and Puccetti 1982) as a concept has been much explored in relation to the moderating effects in the role of personality - Hardy Persons display 'commitment' to daily activity, 'control' over life events and have a tendency to view threat or unexpected change as a positive 'challenge'

In contrast non-hardy people display alienation (or lack of commitment) and an external locus of control and view change as undesirable.

Other writers have added to the growing body of literature on personality and health outcomes. For example, Bowers (1987) has postulated a multidimensional view of personality and health. Contrada (1989) reports hardiness as associated with reduced diastolic blood pressure responsiveness and Type-B behaviours and least anger scores.

Funk and Houston (1987) and Funk (1992) refutes any evidence that hardiness operates as a moderator effect but that it inadvertently measures dimensions of neuroticism as a confounding variable - replicating the earlier findings of Allred and Smith (1989).

Hull, Van Treuren and Virnelli (1987) on the other hand drew the conclusion that hardiness was not a unitary phenomenon at all, but involved three distinct categories:

1. Only commitment and control had adequate psychometric properties - relating to health outcomes.
2. A lack of commitment and control have a direct psychologically stressful effect on health.
3. If there are buffering effects (on commitment and control) then these are in addition to the direct effects on health.

Hull et al. (1987) maintain that hardiness is 'situation specific', since commitment and control are most likely to have effects in situations that require, but do not provide, coping resources associated with the particular personality style.

Manning, Williams and Wolfe (1988) argue however, that hardiness did not moderate the relationship between stressor/outcomes but had significant direct effects on emotional/psychological factors related to well-being, work performance, higher job satisfaction and lesser tension at work. Hardy persons reported fewer somatic complaints and were less depressed and anxious. They concluded that hardiness, whilst being negatively associated with measures of work and life stress, may not be independent of other life demands.

Other criticisms of challenge, commitment and control and their role in hardiness (or stress resilience) are documented elsewhere (see Nowack 1986; Nowack 1989; Parkes 1988; Roth et al. 1989; Tang and Hammontree 1992; Wiebe 1991; Westman 1990; Wiebe 1991; Williams, Wiebe and Smith 1992 and Wood 1987).

#### **6.2.4. 'Locus Of Control'.**

Locus of control is a personality variable which incorporates people's generalised expectancies of trauma, that they can or cannot control events in their lives.

People who believe they can exercise firm control over events are said use an 'internal locus of control'. Conversely where individuals perceive that control is dependent on outside forces, such as luck or chance, which controls the event, they are said to use an 'external locus of control' (Rotter 1966; Spector and O'Connell 1994).



Daniels and Guppy (1992) acknowledge that internal locus of control is nurtured by an attentive, responsive, critical, and contingent childhood environment. However, locus of control attributions are amenable to change throughout adult life.

As one spends more time in a responsible job, internality increases and environmental events will cause perceived locus of control scores to shift. The authors argue that locus of control is a multidimensional construct, related to work stress and differentiates between personal control (as in 'internals') and external agents of control associated with 'luck or powerful others'.

#### 6.2.5. Illusion Of Control.

Lefcourt (1973) argues that 'freedom' is an illusion or, 'a construction of events that is independent of a man's actions, (and) control a construction or illusion.'

Pain or anxiety stimuli are not simply found in the senses, but are responses which are ultimately shaped by perceptions about the threat assessment of those stimuli, and by perceptions about ourselves based on complex cognitive processes.

Control may be an independent element of trauma appraisal. 'Seeking of meaning' is contingent in the first stage of the primary encounter with noxious events or stimuli. And it is necessary at the secondary appraisal stage to master one's options for coping.

Folkman et al. (1986) make the assumption that personality characteristics dispose the person to cope in certain ways that impair or facilitate the adaptional components of trauma. Since secondary appraisal is linked with coping, 'people who are repeatedly in uncontrollable situations experience helplessness, become increasingly passive in their coping efforts, and ultimately experience demoralization and depression.'

Coping, it is argued, refers to the person's cognitive and behavioural efforts at managing the internal and/or external demands of the person-environment transactions which are appraised as either taxing or exceeding intra-psychic resources.

Management (reducing, minimising, mastering or tolerating) of demands may be contingent on perceptions of control since the options for coping at the secondary appraisal phase involves incidents in which a person's self esteem is at stake, and more confrontative coping methods may be useful (i.e. self-control and/or escape-avoidance) for effective resolution.

Control may also involve 'freezing' the noxious stimuli in time (as opposed to avoidance or dissociation) so that it can be integrated into the psyche and resolved at a later stage, when the individual's store of energy is less depleted.

This is not a simple matter of avoidance since it involves a conscious effort to shut out the aversive stimuli within a particular time period and save it for resolution at another time period, (when an officer, say, has time to reflect on the incident; usually in private and usually in an internal and deliberate effort to control their emotional response to the incident). Nor is it a matter of dissociation, as a mechanism of denial or repression in a negative context (Bloch 1991), but denial as a positive mechanism of defence.

In other words, officers might talk about keeping or maintaining control of a given situation or, alternatively, 'losing it' or as 'having lost it' (i.e. losing control). The culture of the police organisation predisposes an individual to remain resolutely professional and 'deal' with all aspects of police work. In trauma, the officer's internal model of coping and more importantly their assumptions about the world at large (Janoff-Bulman 1989) make the process of keeping and maintaining control generally more efficient.

However, how the trauma is integrated into the psyche remains a subject of debate. Since at one time it serves to protect the individual from psychic harm, but at another time it may be that the cumulative or sequential affects may further deplete psychic resources.

#### **6.2.6. Primary Appraisal Mechanisms.**

Traumata which are sudden in impact are now included in a revised version of PTSD (DSM-IV 1994).

The person's response to the event must involve intense fear, helplessness or horror (Criterion A2; DSM-IV 1994).

The prevalence of PTSD symptoms after low magnitude events may contribute to our notion that anxiety and traumatic encounters are cumulative.

This stems from the notion that extreme stressors do not automatically lead to the onset of PTSD and that the perception of 'intense fear, helplessness and horror' associated with the event is the subject of the individual appraisal of the event, as experienced.

In other words, prolonged and repetitive exposure to traumata using adequate coping mechanisms, associated with 'traumatic signatures' may either reduce the magnitude of psychic trauma for similar events, and result in fewer symptoms, or may serve to reinforce PTSD like symptoms, where the traumatic signature is weakened.

Dewe (1991b), for example, postulates that appraisal refers to the meaning individuals give to a particular encounter, and can be separated into those in which an individual recognises that they are under stress (Primary) and those in which coping, resources and options are evaluated (Secondary).

Primary appraisal refers to those dimensions such as, not achieving an important goal; losing the respect of someone important; appearing to be incompetent; feeling embarrassed; appearing unsupportive; difficult to get along with and appearing to be in the wrong (Dewe 1991b; Folkman et al. 1986).

Primary appraisal also reflects the notion that how one perceives a particular stressful encounter determines how they also cope with that encounter. It is postulated that similar stressful encounters may serve to reinforce adequate coping strategies, rather than detract from them.

### 6.2.7. Secondary Appraisal Mechanisms.

Both primary and secondary appraisal are important to our notion of sequential trauma. Officers and civil staff work within fairly well defined hierarchical rank and grade structures. Whilst procedures and operating rules are clearly provided, and where possible breaches of these rules can lead to discipline proceedings, there is also a need to operate within a more 'fluid' state of interpretation of those rules.

Since secondary appraisal mechanisms reflect the marshalling of resources required to deal with trauma, it is imperative that officers are given the best chance to resolve trauma by using the appropriate resources available to them. But marshalling resources to cope might be confounded by the very rules that are designed to protect the police from psychic harm.

For example, Dewe (1991b) studied the effects of secondary appraisal by compiling items suggested by Lazarus and Folkman (1980): i.e. 'one that I could change or do something about; one that I must accept or that I just got used to; one where I needed more information before I could act; and one where I needed to hold myself back from doing what I wanted.'

Dewe (1991b) also added two others: 'one where work bureaucracy made it difficult to deal with; and one where, if I dealt with it in the way I wanted, it would have made things difficult for me.'

These items reflect the notion that secondary appraisal for police personnel might possibly be subject to organisational constraints which will interfere in the cognitive appraisal of events - by reducing the opportunity for individuals to cope. Officers, say, attending the scene of an incident should always be relied upon to act on their own initiative, but this results in a confusing dichotomy in critical events, where adherence to rules and regulations create a climate where they are, 'damned if they do, and damned if they don't': i.e. whichever choice is made, the officer may be liable to discipline proceedings or civil or criminal action or a combination of these defaults.

As Dewe (1991b) points out the first four items (Lazarus and Folkman 1980) are a facet of secondary appraisal and coping where the individual can and will exercise control over a situation - they have the resources available. Whereas his items reflecting the outside influence of work bureaucracy, can possibly interfere with coping where the resources for coping are made inaccessible. Dewe (1991b) provides evidence that marshalling resources to cope which involve personal control are more effective, but less so in cases where work bureaucracy has exercised its own independent and external control.

As a consequence, other authors (Blackler and Shimmins 1984; Dunning 1990; and Stratton 1986) point to an underlying 'psychological contract' that exists between employer and employee. This has been referred to as the culture of the organisation or 'squad room solidarity' (in the UK this is known as the 'canteen culture').

The culture of an organisation is an important determinant of its performance (Arogyaswamy and Byles 1987). There is a maintained degree of internal fit (cohesion and consistency) and external fit (strategy and the environment). 'Culture' it is claimed, decomposes into values and ideologies, which are dependent upon the degree to which either is dominant, conflicting or dysfunctional.

The primary and secondary appraisal items (Dewe 1991b) mentioned above, therefore, not only test the underlying assumptions associated with work stressors, but may also acknowledge the importance of measuring the more 'covert' aspects of organisational culture. Hence any move away from the cultural milieu, or any interference from other sources within the hierarchy, can lead to maladaptive primary and secondary appraisal mechanisms, further weakening the traumatic signature.

The individual begins to form dysfunctional attitudes towards the work 'culture' and may become embittered, cynical and less trusting of the culture that is supposed to foster and enhance well being. At their mildest, dysfunctional attitudes represent a challenge to managers: the worker perceives stress as a direct result of policy or administrative constraints, as a 'Them And Us' scenario.

At the other end of the continuum, dysfunctional attitudes lead to maladaptive cognitive states associated with depression, neuroticism or mildly valent paranoia.

#### **6.2.8. Dysfunctional Attitudes.**

Beck, Brown, Steer and Weissman (1991) argue that the Dysfunctional Attitude Scale (DAS) is intended to measure the underlying assumptions and beliefs that are characteristic of different forms of psychopathology.

These assumptions and beliefs are said to reflect the relatively stable cognitive schemas that organise prior experience, guide the appraisal and interpretation of novel experiences and shape expectations and predictions about the potential outcome of that experience:

'Dysfunctional schemas are thought to serve as vulnerability factors for psychopathology during nonsymptomatic periods, when they are latent or mildly valent. In the presence of relevant environmental triggers, they become activated and hypervalent and contribute to the initiation and maintenance of episodes of psychiatric disorders.'

Beck, Brown, Steer and Weissman (1991) pp 478.

Beck et al's (1991) study reflect themes of cognitive vulnerability to depression, using measurable items such as: 'the idea that you would prefer to have the love or approval from the people you find significant; the idea that negative feelings are influenced by external pressures thus you have little ability to control or change these feelings; and the idea that when faced with difficult situations you prefer to avoid rather than face your difficulties.'

The authors reported that two of the most influential dimensions of dysfunctional attitudes related to the need for approval and the need for success and perfectionism - which also relate to Dewe's (1991b) two reported factors of primary appraisal (i.e. 'that they were not able to achieve success' and were 'seen as being a difficult person').

Since policework is bureaucratic in nature and subject to a hierarchic rank structure, it is possible that officers constantly seek the need for approval in what they do. Approval from the public for doing a good job and from their supervisors for conducting their work proficiently and professionally, is a key feature of organisational strategy - reflected in an officer's Annual Appraisal Reports.

Negative feelings associated with not gaining approval (i.e. negative condemnation of any action that they have taken), could lead to dysfunctional attitudes towards the public, the organisation itself, and those supervisors with whom the officers feel aggrieved. In these circumstances it is reasonable to expect the officers to be depressed, cynical, embittered and neurotic. This would, in turn, have a major influence on their appraisal and resolution in situations involving trauma.

Dyck (1992); Haaga, Dyck and Ernst (1991); Hill, Oei, and Hill (1989); Judge and Locke (1993); Kwon and Oei (1992); Nelson, Stern and Cicchetti (1992); Zuroff, Igraja and Mongrain (1990) all comment on the validation and empirical use of the Dysfunctional Attitude Scale items as being indicators of depressive states such as:

1. Overgeneralisation:  
'If I do a bad thing, it means I am a bad person';
2. Perfectionism:  
'If I am any good I should be able to excel at anything I attempt';
3. Dependence On Others:  
'If people whom I care about do not care for me, it is awful';
4. Social Approval:  
'I often do things to please others rather than myself'.

Judge and Locke (1993) pp 475.

Judge and Locke (1993), in particular, provide strong evidence for depressive thinking in relation to subjective well-being and job satisfaction: the adverse effects of dysfunctional thought processes and their subsequent impact on the appraisal of traumatic encounters.

Notions of self-worth, self-esteem, the need for the approval of others and so on, might influence the way that trauma is appraised and worked through. For example, persons with depressive states of mind may become more vulnerable to depression or dysfunctional thinking as they enter a traumatic encounter, or experience further multiple traumatic events.

This notion is again underpinned in Gersons and Carlier (1990) where an individual has experienced a string of traumatic events that have influenced dysfunctional thinking.

Relatively stable cognitive schemas which organise prior experience, guide appraisal and interpretation of novel experiences, and shape expectations and predictions about the potential outcome of that experience, might be used to predict the outcome of multiple and long term exposure to traumata. But only in association with other variables, such as the meaning and context in which trauma is appraised, and whether prior expectation or intrapsychic assumptions about the world are relevant (Janoff-Bulman 1989).

If one correctly deduces that a traumatic event will not be threatening or overwhelming then it is comforting for the individual to proceed to the next stages of trauma resolution, and subsequently utilise an adaptive outcome to that event.

However where 'control' is impoverished, the event takes on a higher magnitude or significance and resolution involves a considerable expenditure of psychic resources.

### 6.3. SUMMARY.

Primary and secondary appraisal are the first and basic steps in assessing potential threat from hostile stimuli, or in evaluating the response to that hostile stimuli.

Appraisal as a process relies on the previous personality characteristics of the individual. Whether the individual is predisposed to trauma might be taken into consideration.

Whether the individual has a 'hardy personality' which might predispose the person to amply evaluate the threat and deem it to be less hostile than their colleague, must also be accounted for. This proposition may also hold true for those persons who utilise internal or external locus of control.

Where the threat is sudden unexpected and overwhelming, the onset of symptoms associated with PTSD-like states will be quickly apparent.

However it is not unreasonable to assert that many officers may 'learn' to become habituated to trauma events, preferring to consciously or subconsciously defer reaction to that event until sometime later (freezing the effects of trauma for later resolution).

Of course, if the traumatic event is not wholly worked through at any later stage, it is possible that it becomes integrated into the traumatic signature of the individual psyche to be resurrected on encountering another, perhaps similar, event.

Such effects are said to be cumulative: the intrapsychic torment is played over and over at a subconscious level and may surface weeks, months or years post-event. It is here that the traumatic signature may be weakened.

And as the integration of the trauma event is rehearsed, it may even be restructured into a mutated form which is vastly different from the original traumatic event - making the onset of symptoms both cumulative and sequential.

Primary appraisal may be the original site of the trauma acquisition phase, where a host of internal resources and personality characteristics are brought into play. This in turn impacts upon secondary appraisal which is mediated through the traumatic signature phase to assist the person in later strategies for coping.

## CHAPTER SEVEN - COPING.

### 7. COPING WITH TRAUMA EVENTS.

Coping is a facet of the secondary appraisal process, where the individual evaluates the resources that they have at their disposal to resolve (deal with) a traumatic event.

Also we have previously stated that there is a continuum of coping: It, 'is not single act but a constellation of many acts and thoughts engendered by a complex set of demands that may stretch out over time.' (Lazarus 1981)

The stressful encounter may assume minor involvement in an incident and the subsequent low expenditure of resources, up to major involvement in events which require unqualified effort at resolution.

This next chapter discusses coping strategies and frameworks in relation to sequential trauma effects and the impact of trauma signatures on the effectiveness, or otherwise, of coping mechanisms.

#### 7.1. Problem-Focused Coping.

Lazarus (1981) and Lazarus and Launier (1978) discuss four main coping modes - each serving problem-solving and emotion regulatory functions. These modes are also orientated within person-environment transactions, either in the past (representing harm or loss) or in the future (representing threat or challenge).

These modes are characterised as, 'information seeking; direct action; inhibition of action and intrapsychic processes' (Lazarus 1981).

Information seeking involves gaining a basis for action, and involves support mobilization which relieves emotional distress. This means that the stressful encounter is 'reappraised' (Lazarus 1966).

Direct action is aimed at either person (i.e. expressing anger, seeking revenge, fleeing, taking medication, contemplation of suicide etc.) or environment transactions, and includes altering the person-environment relationship for the better.

Inhibition of action is viewed as an effective coping mechanism (Lazarus 1981) since it involves holding back impulses that might do more harm, in the interest of other more beneficial social, moral or physical values.

Intrapsychic modes are the cognitive processes involved in regulating emotional states and include, self deceptive mechanisms of denial, reaction, formation and projection, as well as avoidance efforts at maintaining detachment or insulating oneself from the threat i.e. to achieve some element of control or mastery over the event.

Problem-focused coping implies that cognitive behavioural strategies are used to manage a stressful situation (Aldwin and Revenson (1987), by minimising or reducing emotional distress. This strategy has been found to decrease emotional distress when the individual attempts to alter the situation or the appraisal of the situation (Edwards 1988) by:

`..defining the problem, generating, evaluating, and selecting potential solutions and attempting to cognitively reappraise the situation by shifting levels of aspiration, reducing ego involvement, finding alternative channels of gratification, or developing new standards of behaviour

Edwards and Baglioni (1993) pp 18.

#### **7.1.1. Emotion-Focused Coping.**

In contrast, emotion-focused coping will utilise negative emotions associated with stressful situations, which include: `minimisation, selective attention, avoidance, distancing, self deception, positive comparisons and reality distortion (Edwards and Baglioni 1993).

Fain and McCormick (1988) note that police officers use coping mechanisms which increase their stress rather than alleviate it. Maladaptive (emotion-focused) coping (the use of alcohol, drugs, deviance and cynicism) not only increased the officers' personal stress but also that of their department and colleagues.

Folkman, Lazarus, Gruen and DeLongis (1986) also report that emotion focused coping may be moderately stable across stressful encounters and so affect adaptional outcomes.

Problem focused coping, however, was found to be strongly influenced by the situational context of the stressor.

Hart, Wearing and Headey (1995) also report that problem focused coping resulted in positive work experiences for police officers and that emotion focused coping contributed to more negative work experiences. Positive experiences may increase well being but will have little effect on psychological distress, and negative experiences increase distress but may have little utility on well being.

#### **7.1.2. Negative Affectivity.**

Parkes (1990) also maintains that longitudinal studies support the view that the work environment exerts a causal influence on mental and physical health, including short and longer term health outcomes (Holahan and Moos 1987).

Coping strategies used to manage occupational stress may also be significant determinants of outcome, in that they may moderate or mediate between work stress and psychosomatic complaints (Frese 1986).

As a mediator variable, coping mechanisms link the stressor to the reactive outcome. As a moderator variable, coping serves to improve or disrupt the relationship between the stressor and the reaction, but is contingent on whether the person is perceived to be a `good' or `bad' coper.

In main effect (additive) models of coping, relations between coping and outcome were considered to be independent of stress levels. However interactive models view coping as a moderator variable which influences stress and outcome (see also Aldwin and Revenson 1987).



Negative affectivity on the other hand, 'is construed as an individual-difference variable reflecting a predisposition to low self-esteem and negative emotionality' (Watson and Clark 1984) and is characterised by a tendency to concentrate on the more negative aspects of the self and the world in general - and a tendency to experience significant levels of distress.

Watson and Clark (1984) support the notion that negative affectivity is a 'broad and pervasive personality trait.'

Personality traits are also implicated in particular coping styles, such as buffering effects of 'hardiness' (Kobasa 1982; Kobasa, Maddi and Kahn 1982), 'locus of control' (Rotter 1966; Spector and O'Connell 1994) and Type A behaviours (Burke 1988a; Check and Dycck 1986; Contrada 1989; Nowack 1986; 1989), as mentioned in previous chapters.

### **7.1.3. Coping Styles.**

Edwards and Baglioni (1993) contend that much research in the past has failed to focus on the construct validity of ways of coping. The 'Ways of Coping Checklist' (Lazarus 1966, Lazarus and Folkman 1984; Lazarus and Launier 1978) is derived from a transactional model of stress and are divided into problem and emotion focused coping - but differentiation between the two are difficult to measure.

In contrast their own 'Cybernetic Coping Scale' (Edwards and Baglioni 1993) unpacks the cybernetic theory of stress, coping and well-being, as a discrepancy between the individual's perceived state and desired state - providing the discrepancy has some importance for the individual. Coping is an attempt to reduce or minimise the negative effects of stress on well-being.

Edwards (1988) also maintains that personal characteristics influence the impact of any coping strategy. These include skills, abilities and personality traits which are relevant for the success of a particular coping style.

Individuals with an internal locus of control, for example, tend to be more resistant to the impact of a stressful encounter (Rotter 1966; Spector and O'Connell 1994; Daniels and Guppy 1992).

Conversely those individuals who display 'hardiness' in terms of 'commitment' to daily activity, 'control' over life events and have a tendency to view threat or unexpected change as a positive 'challenge' may be successful in coping.

Non-hardy people display alienation (or lack of commitment), an external locus of control, and view change as undesirable (Hetherington 1993).

### **7.1.4. Personality.**

Horowitz (1993) on the other hand asserts that, 'personality typology, culture, and other factors that affect style, habit, and schematization will also affect how the person experiences and expresses ideas and emotions in response to stressful events.'

Intrusive images in acute stress, for example, involves working through the trauma, or re-enactment. 'Working through' is characterised by thinking and feeling and discussing with others:

'This includes forming new schemas or revising schemas to accommodate internal information structures to the news to the self embodied not only in the traumatic life event, but also in everything that is serially affected by it.'

Horowitz (1993) pp 53.

McCammon et al. (1988) assert also that cognitive appraisal of events involve 'seeking of meaning, regaining mastery through individual action, regaining mastery through interpersonal action and philosophical self contemplation.'

#### **7.1.5. Problem Solving.**

Ostell (1991) sets out a framework for the 'problem-solving' approach to coping with distress which includes;

- (a) Changing what is happening (the actual state of affairs) so that it conforms to what is wanted (the desired state of affairs).
- (b) Changing what is desired (beliefs and goals) so that it is consistent with what is happening, or as frequently occurs.
- (c) Adjusting both desired and actual circumstances to a compromise position.

Problem solving approaches assume that cognitive structures process information from the internal and external environment, which subsequently influences the behaviour of an individual. The discrepancy between actual and desired states echoes the cybernetic coping theory of Edwards and Baglioni (1993).

Secondary appraisal mechanisms direct which course of action is appropriate to manage a traumatic encounter. Identifying the problem and marshalling the necessary personal and other resources should ultimately assist in diminishing the stressor. However, if a person cannot manage the problem, or ways of handling the situation cannot be ascertained, then the person may engage in reappraisal (Lazarus 1966; Ostell 1991) and may consciously check prior evaluations of the problem situation and coping resources.

#### **7.1.6. Processing Stressor Events.**

With reference to reappraisal of trauma events, or in checking prior evaluations, Horowitz (1993) maintains that responses to trauma are usually actioned in terms of processing new information that is discrepant with previous inner schemas or mental models of the Self, in relationship with the external world.

Cognitive maps serve to code traumatic life events to assist appraisal and coping mechanisms. For example:

1. A low level of inhibitory regulation leads to excitation of emotional systems and to behaviours associated with emotional outcry.
2. Excessively high inhibitory controls may interrupt the assimilation and accommodation process.

3. Adaptive controls reduce ideational and emotional processing to tolerable levels.

Horowitz (1993) pp 58.

Horowitz (1993) aptly confirms the notion of traumatic signatures which is being presented in this study. Cognitive schemas serve to integrate external experience into existing internal frameworks. These schematisations (or signatures) will either assist in positively identifying coping strategies or hinder coping foci, leading to negative outcomes.

Cognitive models of coping are discussed below in relation to the work of Janoff-Bulman and others. These include notions of 'attribution of blame; behavioural and characterological self-blame; rebuilding shattered assumptions; and the role of assumptive worlds.'

These papers are presented in date order to show the developmental context of assumptions surrounding schematisation, internal models of the world (and hence, traumatic signatures).

## **7.2. ATTRIBUTION OF BLAME.**

In an early paper (Janoff-Bulman and Wortman 1977) pose the question that coping and reactions to victimisation may be affected by motives such as a desire to maintain a belief in a 'just world'.

People assign causality (a 'defensive attribution') in order to maintain or enhance self esteem. This assumes that the attribution process provides a person with a view of the world, as well as maintaining control in that world.

In accident victims, for example, it was reported that the more victims blamed another, or the more that they believed that the accident could have been avoided, the worse they coped. Conversely, the more accident victims blamed themselves, the better they coped. The implications for our study is that blameworthiness may be a function of the traumatic incident itself (i.e. by assigning blame to another person or external cause), as well as the victim's experience of the trauma (i.e. assigning blame to either a failure to do something, or having done something to instigate the traumatic event).

### **7.2.1. Self-Blame.**

Self blame and the guilt associated with personal involvement in a tragedy is a significant feature of pathological grief reactions and the intrusion of unbidden thoughts and images in trauma work (Horowitz 1993 pp 53). For police officers this may mean that the failure to take action, or in taking inappropriate action, might lead to feelings associated with guilt, rage or the numbing of psychic responsiveness, similar to PTSD reactions to trauma events.

Janoff-Bulman (1979) defines two types of self-blame (behavioural and characterological) which might influence coping.

Self-blame is held to be either a positive psychological mechanism, derived from the belief in personal control over one's outcomes, or a maladaptive mechanism which is related to self criticism and low evaluation of one's worth or self esteem.

Behavioural self-blame is control orientated and adaptive, whilst characterological self-blame is maladaptive and self depreciating. Attributing failure to oneself (internal attribution) is marked by a belief in one's lack of ability or effort and poor perception of control (characterological self-blame).

The understanding of this notion is that it is akin to emotion focused coping (Lazarus 1981) and an 'external locus of control' (Rotter 1966; Spector and O'Connell 1994). Recall that emotion focused coping utilise negative emotions associated with stressful situations (Edwards and Baglioni 1993).

Conversely, effort attributions may lead one to believe that trying hard to overcome adversity and controlling outcomes will lead to positive and adaptive outcomes (behavioural self-blame).

Again, this notion is understood in the context of planful problem-solving, problem-focused coping and an internal locus of control. Recall that problem-focused coping is associated with cognitive behavioural strategies used to manage a stressful situation (Aldwin and Revenson (1987), by minimising or reducing emotional distress (Edwards 1988; Edwards and Baglioni 1993).

### 7.2.2. Shattered Assumptions.

The theoretical underpinning of shattered assumptions (Janoff-Bulman and Frieze 1983) asserts that victims have 'cognitive baggage' - assumptions and expectations they have about themselves and their world, and which have been severely challenged on encountering a traumatic event.

Personal theories allow people to set goals and plan activities, thus imposing order on their behaviour.

There appears to be three basic types of assumptions which are discrete beliefs:

1. The belief in personal invulnerability.
2. The perception of the world as being meaningful and comprehensible.
3. The view of ourselves in positive light.

Janoff-Bulman and Frieze (1983) pp 3.

Self-perception of invulnerability, for example, can be maladaptive if it inhibits people from taking up effective preventive behaviours such as anticipating for and avoiding traumatic encounters (i.e. a police officer who deliberately places themselves in danger, in the belief that they are 'bullet-proof').

The assumption that the world is meaningful is linked to perceptions of invulnerability in that there is a belief that misfortune can be prevented by being cautious (i.e. the police officer who when faced with danger, pauses to assess the consequences to themselves or to others).

'Meaningfulness' of the world is also associated with the notion that bad things do not invariably happen to good and worthy people. Here sense is made of the world with regard to events that are perceived as being controllable.

However the reverse is also apparent when people are faced with a traumatic event which shatters the assumption of invulnerability. Here the victim is faced with 'loss of meaning' (and perhaps loss of control of events) and victims often report a lack of comprehension about why a particular event has happened to them.

Positive self-perceptions enhance the maintenance of confidence and self-esteem. Where a trauma event shatters this assumption the victim, 'activates negative self-images' (Janoff-Bulman and Frieze 1983 pp 6).

Horowitz (1993 pp 53) argues that the working through phase of trauma involves decisions about self organisation. Where negative self-images take root, the normal schemas of self and other may impair the individual's ability to reschematise the self and the world in the most adaptive way.

Janoff-Bulman and Frieze (1983) also maintain that reacting to victimisation means that the person redefines the event so as to minimise its threat potential.

Cognitive appraisal and coping post-event affects the extent to which the victimisation functions as a stressor and a threat. In their concluding remarks it was noted that:

'The weakness and helplessness often associated with the term "victim" represent an unfortunate generalisation of powerlessness from the victimising event to the recovery process. People can be helpless in preventing their own victimisation, while powerful in coping with it.'

Janoff-Bulman and Frieze (1983) pp 13.

### **7.2.3. Rebuilding Assumptions.**

Janoff-Bulman (1985) proposes that post traumatic stress may be due to the shattering of basic assumptions that a person holds about themselves and their world (Janoff-Bulman and Frieze 1983). Coping involves rebuilding these assumptions and specific coping foci involve notions of self-blame as an adaptive mechanism.

Trauma challenges intrapsychic models of the world and a state of disequilibrium exists, marked by intense stress and anxiety and the symptoms associated with PTSD (DSM-IV 1994). Coping means a 'coming to terms' with shattered assumptions and, 're-establishing a conceptual system that will allow the victim to once again function effectively.' i.e. regaining meaningfulness, a positive self-image, perceptions of self worth.

Horowitz et al. (1980), Horowitz and Wilmer (1981) and Horowitz (1993) point to symptoms of intrusion and repetitive images as the mind's way of processing new information about trauma. 'Completion tendency', for example asserts that people have a tendency to integrate reality and schemata into new experiences, which is stored in the active memory.

When trauma is resolved (or partially resolved) the new information is integrated into long-term models and inner schemata and intrusive, unbidden images and thoughts diminish. Here existing models of inner self and world are changed in accordance with newer intrapsychic data.

In accordance with the view espoused in this study, traumatic signatures serve as a regulatory function, which assist in the 'making sense of' current trauma experience, and, in mediating past trauma, assists in creating the climate for an adaptive response.

Similarly where the trauma does not fit into existing models (or signatures) of traumatic experience, the schemata would not necessarily change and a maladaptive response would result.

Since our basic assumptions of the self and the world are indeed personal (though cultural variations might lead to generic or archetypal schemas), there is a 'uniqueness' quality to the traumatic stressor as experienced by the individual.

For this reason, it would be more correct to call intrapsychic schemata, 'trauma signatures' - as this might explain why an experience may be traumatic for one person, but not another. And it also explains why the magnitude of the traumatic stimuli or experience is severe for some, but not so for others.

Coping in this context would be dependent on intrapsychic or 'cognitive' modes and direct action (Janoff-Bulman 1985). Coping would therefore consist of:

1. Redefining the event: by maximising the possibility of maintaining prior theories of reality
2. Finding meaning: by making sense of the experience and assigning causal attributions which provide an explanation for what happened.
3. Changing behaviours: by removing oneself from daily confrontation with and physical reminder of the trauma.
4. Seeking social support: by turning to significant others for emotional and physical support, thereby re-establishing self-esteem and positive well being.

#### **7.2.4. The Role Of Denial.**

Janoff-Bulman and Timko (1987) further refine the theory of assumptive worlds by tackling the issue of denial as an adaptive consequence of trauma.

Denial is viewed as a defence mechanism as a response to external perceptions of reality. Within traumatic experience the individual finds that there is a disparity between previous held models of the world and new existing data which challenges their intrapsychic assumptions:

'The individual finds that there is a discrepancy, and this discrepancy evokes a powerful emotion. With optimal controls to slow down the recognition process, completion will eventually occur; one's inner models will conform to a new reality.

Janoff-Bulman and Timko (1987) pp 146.

The authors assert that denial provides the 'optimal control' since it prevents the individual from being overwhelmed and panicked.

As Horowitz (1993) argues, adaptive controls reduce ideational and emotional processing to tolerable levels, i.e. 'modulating emotional responses to serious events into tolerable, time-spaced doses (pp 50).'

Lazarus (1983) points out also that denial allows an individual time to recognise that the event is gradual and capable of being managed, rather than being overwhelmed by the impact of the trauma.

It was previously stated (Chapter 6, 'The Illusion Of Control') that during appraisal, control of a traumatic event may involve 'freezing' the stimuli in time (as opposed to avoidance or dissociation as a negative consequence of the trauma) so that it can be integrated into the psyche and resolved at a later stage. In these cases denial might be explained as a dissociative mechanism of defence (Bloch 1991).

#### **7.2.5. World Assumptions.**

Work with victims of extreme trauma suggests that people ordinarily operate on the basis of important assumptions about the world and themselves. Schemas serve as pre-existing theories that provide information for anticipating the future, and also guide what victims notice or remember, as well as integrating and interpreting novel information:

'Research has amply demonstrated that in general we are conservative when it comes to changing our schemas; we attempt to incorporate the anomalous within the framework of existing schemas, and we persevere in retaining already existing schemas rather than developing new ones.'

Janoff-Bulman (1989) pp 115.

Based upon the argument that assumptive worlds affect our response to crises and trauma, Janoff-Bulman (1989) developed the 'World Assumptions Scale'. This scale consisted of 8 four-item subscales and covered dimensions such as: Benevolence of the World (BW); Benevolence of People (BP); Justice (J); Controllability (C); Randomness (R); Self Worth (SW) Self-Controllability (SC); and Luck (L). These indices will be discussed in the methodology section for the present survey.

Her study then determined the extent to which world assumptions had an affect on victims and non-victims, and the findings suggest that traumatic life events have a long term impact on two basic assumptions: involving a belief that the world is benevolent and that people are benevolent. Years after a trauma event, self and world schemas differed for victims as opposed to non-victims.

It was also suggested victims may resolve cognitive crises by developing more complex schemas and finer cognitive distinctions between themselves and their world.

Although these indices have an element of locus of control variables (Rotter 1966), there is still merit in considering them as a basis for the trauma signature hypothesis in the current study.

For example, if police officers - the very nature of their work suggesting that there is a belief in a just and benevolent world - are faced with significant challenge to intrapsychic modes of coping then it is likely that trauma will alter or disrupt internal schemata. Therefore, in accordance with Janoff-Bulman (1989), it is proposed that trauma signatures are a healthy facet of denial which modulates the stressor and the outcome.

### 7.3. SUMMARY.

Coping foci are not then delineated as a product of 'good' or 'bad' coping, but based on a continuum of positive affect states associated with the maintenance of problem-focused coping, an internal locus of control and positive or high self-regard (leading to adaptive coping methods).

Conversely, where the continuum of coping is based on negative affect states (or negative affectivity - as in Parkes 1990) associated with emotion-focused coping, external locus of control and low self regard, this will lead to maladaptive coping foci.

Of necessity, trauma signatures link or mediate person-environment transactions between stressor and outcome and modulate (improve or disrupt) the relationship between the stressor and the reaction.

Trauma signatures then provide us with an interactive model which influences both gross stress and/or trauma acquisition and health outcomes (see also Aldwin and Revenson 1987). Where prolonged and repetitive exposure to traumatic events has occurred, other factors must be taken into consideration: individuals may learn to become habituated to the long term affects of trauma exposure - through the strengthening of individual 'trauma signatures' - thus allowing for satisfactory and adaptive coping mechanisms.



## CHAPTER EIGHT - GROSS STRESS OUTCOMES.

### 8. METHODOLOGICAL CONSIDERATIONS.

This brief chapter provides the rationale for the research into sequential trauma by introducing a framework within which research objectives are set.

Notions of work trauma and the possible effects on physical and mental well being on police officers are also discussed. Sequential trauma theory is also brought to a tentative conclusion within this chapter.

#### 8.1. Physical And Mental Well-Being.

General stress effects have already been described in Chapter Three ('General Stress Theory') and it is not proposed to replicate that section.

However there are a few points worth highlighting with respect to physical and mental well-being. For instance, 'well-being' throughout this text refers to both physiological and psychological outcomes (Cox et al. 1983; Dewe, Cox and Ferguson 1993), though mental well-being will be specifically measured within the survey, using indices of the impact of events (and subsequent symptoms of intrusion, avoidance), appraisal of events, coping, and trauma signatures.

Also outcomes are discussed in relation to employee and organisational contexts, i.e. person-environment transactions (Cox and Mackay 1981; Frankenhaeuser 1980; Hosen 1990 and Lazarus and Launier 1978) but will be measured in this survey covering aspects of work and domestic life, secondary appraisal and work related stress, coping strategies and 'best practice' in interventions.

Physical well-being may be dependent on salient factors such as optimism ('dispositional optimism'; Scheier and Carver 1987) about coping with life events; whether physical fitness is a variable (Hardy, Parfitt and Baker 1989); or whether personality has a role (Hart, Wearing and Headey 1995). These issues may be the focus for further research, but will not be tested within this survey.

Mental well-being may be dependent on a number of influences, such as threat evaluation (Allred and Smith 1989); negative affectivity (Burke, Brief and George 1993; Parkes 1990); locus of control (Daniels and Guppy 1992) and the utilisation of other human resources (Hetherington 1992).

These influences are measured using 'off-the-shelf' psychometric measures such as the 'Impact of Events Scale' (IES; Horowitz, Wilmer and Alvarez (1979) - to assess threat evaluation of trauma events); neuroticism items borrowed from Eysenck and Eysenck (1964) - to assess negative affectivity); 'locus of control' is deduced through measurement of the primary and secondary appraisal items suggested by Dewe (1991b) and dimensions of coping uses the 'Cybernetic Coping Scale' suggested by Edwards (1991). The use of other human resources tap into internal world beliefs and are measured using the World Assumptions Scale suggested by Janoff-Bulman (1989).

### 8.1.1. Neuroticism.

Hillis and Norvell (1991) and Manning, Williams and Wolfe (1988) argue that 'hardiness' outcomes and neuroticism may moderate stress outcomes. In relation to the present study, it is argued that trauma signatures assist in negotiating the maladaptive impact of trauma. In other words, it is supposed that there is something in an officers long term emotional stability that enables them to cope with prolonged and repetitive exposure to trauma events.

Neuroticism (Eysenck and Eysenck 1964) has been measured on a continuum of introversion and extroversion. Introverted people are said to be quiet, shy and perhaps vulnerable i.e. prone to emotional upset. In contrast extroverts may be brash, loud and aggressive. It is claimed that people will usually alternate between these two personality traits and this may enable police personnel to moderate the effects of some trauma events and not others.

Parkes (1988), however has discussed the role of hardiness and extroversion as a possible link to neuroticism and negative affectivity (see also Parkes 1990). And Pollock (1989) argues that hardiness may be linked to adaptiveness and well-being in relation to chronic illness (Pollock, Christian and Sands 1990). In the present study neuroticism/negative affectivity dimensions are measured using items suggested by Eysenck and Eysenck (1964) - to attempt to predict the relationship between negative feelings towards trauma in relation to general well being or mental health. It is hypothesised that the more neurotic a person is, the less likely they will be able to understand and work through what is happening to them.

### 8.1.2. Context Free Mental Health.

The General Health Questionnaire (GHQ; Goldberg 1972) measures dimensions such as context free mental health in relation to health outcomes such as, concentration, lost confidence, perceptions of usefulness, sleep loss; decision making, strain, problem focus, overcoming daily difficulties, diminished enjoyment of activities (i.e. neuroticism), depression and low self esteem.

However these indices rely on a subjective scale ranging from '1 = Not at all; 2 = Same as usual; 3 = Less than usual; and 4 = Much less than usual', (this will be discussed in greater detail within the methodology). The sum of GHQ for 12 items is a possible 48 and it has previously been argued by Goldberg (1972) that a high endorsement of these items reflect 'chronicity' or 'caseness' measures of subjective well-being.

Goodchild and Duncan-Jones (1985), however, argue that item responses to the GHQ are not clear cut. For example, a top score of '4 (i.e. 'Much more than usual') to an item describing a symptom such as, 'thinking of yourself as a worthless person' - was conventionally viewed as indicating chronic illness according to Goldberg (1972) - but, Goodchild and Duncan-Jones (1985) argue that this may be dependent on the interpretation of the word, 'usual'. In such cases there is doubt that a high score could indicate caseness when the respondent has a different understanding from that of the researcher.

A 12-item version of the GHQ (GHQ12) was used in the present study to determine the general state of well being in police populations. But because of the problems associated with 'chronicity' (Goodchild and Duncan-Jones 1985), and the issue associated with what may be regarded as 'usualness' for respondents, these items were cross referenced to another more stable state-trait dimensions of neuroticism (using the scale suggested by Eysenck and Eysenck 1964).

The Cybernetic Coping Scale (CCS; Edwards 1991; Edwards and Baglioni 1993) uses measures of stress as a discrepancy between the individual's perceived state and desired state, where coping is perceived as attempts to reduce or eliminate the negative effects of stress on well-being (See also The Ways of Coping Checklist - Lazarus and Folkman 1984).

In the study reported here the CCS was used to determine what coping strategies assisted officers in dealing with their traumatic experience. How and when a person copes with life crises may well provide an indirect measure of trauma outcomes - i.e. a measure of the relative success of 'coping' as against 'not coping'.

## **8.2. POLICE TRAUMA OUTCOMES.**

These issues relate to both work and domestic stressors as well as the person-environment transactions of the individual, since work affects have influence on domestic settings and vice versa (Peters-Bean 1993).

It is hypothesised that adaptive measures of trauma will mean lower reported sickness and/or absenteeism (Alexander et al 1991; Cooper and Bramwell 1992; Home Office Affairs Committee 1991; Tang and Hammontree 1992); altruistic management/worker relationships (Jones and Boye 1992); lower reported role conflict or ambiguity (Rosenthal 1964; Dewe 1991b); higher indices of job satisfaction (Grant, Garrison and McCormick 1990; Hollingsworth, Matthews and Hartnett 1988; Judge and Locke 1993); low reported turnover and/or transfer (Cooper and Payne 1980; Cooper 1995); and lower dependency on welfare provisions or Employee Assistance Programmes (Berridge and Cooper 1993; Gerstein et al. 1990; Nord and Littrell 1989; Wrich 1990).

### **8.2.1. Police Individual Outcomes.**

Individual outcomes for police are likely to be inferred from two main sources:

1. Organisational stressors such as those described above, will be researched in this survey, since it is important to highlight job stress and dissatisfaction with work, as well as the additional affects of trauma.

These will have an effect on individual social and psychological functioning (Hart et al. 1995; International Law Enforcement Stress Association 1989; Kaslof 1989; Perrier and Toner 1984; Brown and Campbell 1990; 1994).

2. Police trauma, in isolation from normal work 'hassles' and in relation to multiple prolonged and repetitive exposure to trauma events, will be also be explored.

The occupationally specific nature of police work is the subject of recent debate (Martin et al. 1986; Patterson 1992; Pendleton et al. 1989) since comparisons with other services and with other victims indicate that police distress is not as 'unique' as previously proposed (Peters-Bean 1990b; 1995). What will be outlined in this study, is the situation-specific aspect of trauma. It is hypothesised that whilst police may encounter stress levels which are comparable with other organisations, police specifically encounter prolonged and repetitive exposure to trauma - which may enable officers to adapt more rapidly; or become habituated to it in certain circumstances (Gersons and Carlier 1990).

This is important to the study, since it will enable researchers to identify 'at risk' groups who are invariably at the front-line of trauma experience: by providing base data on trauma - which could be used to assess the impact of specialist posts on officers at different levels of service say, or as an assessment tool for recruiting civilians into the police service itself.

Recall also that it was argued that trauma was part of the 'specific-task' of some police workers (i.e. police workers who daily process trauma events and their civilian counterparts who are also exposed to repetitive trauma). Information about trauma acquisition and how officers cope with it, may be used as a diagnostic health-check on their routine performance of specific tasks - to enable practitioners to counsel them at the appropriate time.

### **8.3. SUMMARY.**

In developing a theory of sequential traumatisation, the search for a comprehensive instrument to measure the affects of multiple trauma is recognisably difficult. No such instrument exists. And this dissertation makes an attempt to differentiate between one event models, usually experienced by ordinary members of the public and multiple event models experienced by police officers, by developing and testing a psychometric measure of trauma and the impact that it has on the officers in the long term.

For example, in prolonged and multiple exposure to traumatic events other more subtle and pervasive factors have to be taken into consideration, in accordance with the hypothesis that:

1. Traumatic events can quickly produce a severe reaction in some individuals and not others.
2. Individuals may learn to adapt (become habituated) to prolonged and repetitive exposure to traumatic encounters.

Moreover, outcomes may be split into adaptive or maladaptive strategies, such as:

3. Prolonged and repetitive exposure which produces maladaptive coping strategies and trauma affect states which are severe and;
4. That some adaptive coping strategies will be manifest in less severe trauma affect states.

This hypothesis attempts to explain why police officers report feeling distressed post incident, but the distress seems to pass in a few days. Other officers also seem to absorb the traumatic residue - which influences their behaviour and subsequent reaction to traumatic encounters for their entire career (Duckworth 1990).

It is argued, also, that some persons will of necessity oscillate between periods of severe reaction to unique events and minor reaction to similar events, dependent on their individual coping strategies and world outlook.

The Sequential Trauma theory proposed in this thesis is complex and at times abstract. It is not the intention to make it so.

Understanding traumatic experience is more complex; rather like solving a jigsaw puzzle and similar to building those that are completely blank and have no printed picture on the front. The most that a researcher can hope to achieve is to fit the intricate shapes together to determine the general characteristics of trauma, without having much of a clue as to how the whole process will turn out.

One guesses that we will end up with a white rectangle composed of the smaller jigsaw pieces - what a colleague called the 'big picture' of trauma: the final shape of trauma acquisition; the initial incident; the primary and secondary appraisal of the traumatic experience; and the mechanisms involved in either the adaptive or maladaptive coping strategies utilised. This may predict the physical or mental health outcomes for that victim.

The end result focuses on the symptom picture and resolution.

Meanwhile one has to contend with fitting fragments together in a sort of system or sequence, until the picture is completed. Each separate shape - the trauma incident itself; the mutually exclusive and/or mutually exhaustive processes involved and the impact of trauma resolution, represents the 'little picture' of trauma. And in analysing the little pieces we aim to reconstruct the whole.

This process focuses on distinct components of trauma.

The following research objectives and the methodology selected discusses 'little picture trauma' in order to make predictions about trauma experience within the larger 'big picture' for police populations.

## RESEARCH OBJECTIVES.

### 9. RECAPITULATION.

In Chapter One and the foregoing, the concept of trauma acquisition and resolution was presented on the basis of prolonged and repetitive exposure to traumatic incidents, or 'sequential traumatisation'.

It was determined for example, that the current research could:

How the phenomenon may be established as a syndrome of acute anxiety; what the likely symptoms are; where the interaction between police work and an officers' home environment might influence the onset of symptoms; when breakdown of normal psychological and social functioning might occur; why the interplay between, (a) psychological characteristics of the individual and (b) organisational factors associated with work, might shape officers' psychic experience; and who is likely to be affected.

### 10. RESEARCH OBJECTIVES.

Several research aims were devised to:

1. Assess the impact of trauma events on general mental health.
2. Assess the relationship between measures of primary and secondary appraisal with general mental health and negative affectivity.
3. Assess dimensions of cybernetic coping in relation to trauma outcomes, such as the impact of events and general mental health.
4. Assess dimensions of coping in relation to internal world models (or world assumptions).
5. Assess the relative importance of state mental health and trait mental health (or negative affectivity).

## 11. METHODOLOGY.

Full methodologies and the rationale for their use are contained in the relevant sections for the three studies. However, this section describes the survey techniques in brief that were used to assess the concept of sequential traumatising for police officers and civil staff.

- (1) STUDY ONE: Consisted of an Interview Survey booklet within the Metropolitan Police Service.

This was to assess the nature and impact of trauma within specific groups of Police and Civil Staff.

See Appendix "A" for details of the Interview Survey questions and grouped responses.

- (2) STUDY TWO: Consisted of a Metropolitan Police Service survey.

The battery of instruments used were designed to further assess trauma dimensions such as the nature of the traumatic encounter, its appraisal, coping and outcome within the specific groups of Police and Civil Staff.

See Appendix "B" for details of the sequential trauma questionnaire (Metropolitan Police Version).

- (3) STUDY THREE: Consisted of a Main U.K. Forces questionnaire.

The main study involved using a revised sequential trauma questionnaire (from the Metropolitan Police survey) within other United Kingdom Police Forces and Constabularies.

This was used to assess dimensions such as the nature of the traumatic encounter and its appraisal, coping and outcome within a larger Police Population composed of specific groups: (a) to gather further data relating to a larger police population within the U.K. and (b) to compare results between other Forces and the Metropolitan Police.

See Appendix "D" for details of the Main U.K. Forces sequential trauma questionnaire.

## 12. STUDY ONE: THE INTERVIEW SURVEY.

The author of this dissertation is a serving police officer. It was reasoned that any attempt to study trauma within his own group might be subject to personal opinion, rather than research objectivity. That is, his own notion of trauma might well be different from others working in the same field.

The rationale behind the first study was to design an interview administered questionnaire to assess the extent and impact of trauma in a general sample of Police and Civil Staff - working within a wide variety of different departments - and to reach a common understanding of the issues surrounding extreme stress and trauma.

It was assumed that the opportunity sample of officers and civil staff was 'normal and healthy' since the researcher had no prior knowledge of whether any respondent had in fact suffered from a traumatic encounter.

It was also hypothesised that some aspects of trauma might be specific to particular forms of work i.e. having certain attributes or factors in common with the task or responsibility that a worker is required to perform. So a general sample was appropriate in this case, to determine if certain tasks or functions within a particular department or branch, might reveal distinctive 'at-risk' or 'high-risk' groups.

For example, having to carry or use firearms, or confront armed criminals may evoke traumatic reactions in some groups such as Firearms Branch, Area Response Vehicles and the 'Flying Squad' (tasked with detecting and preventing armed robberies). Administration Clerks who process Court papers involving child abuse, rape or homicide cases might experience differing levels of anxiety or trauma because of the work content.

Although the outcome of the trauma may have similar effects, the contributory factors involved in the traumatic experience may be qualitatively different.

In order to understand the content of the work, and the context in which trauma and the attendant anxiety may be experienced by staff within the Police Organisation, a short Interview Survey booklet was devised which could be given to Officers and Civil Staff working in ten dissimilar departments. See Appendix "A" for details of questions and responses.

Page one of the Interview Survey booklet included a covering letter which outlined the nature of the study; the voluntary participation of the respondent; that they were randomly selected; and the questionnaire asked for responses to questions which were of a sensitive nature.

Additionally advice was given to the effect that if at any time they felt distressed, because of the nature of the questions, they need not continue. The respondents were also reassured that if they wanted to talk to someone about their feelings or distress, they were recommended to contact the Police Welfare Branch, or Occupational Health Adviser or own General Practitioner for advice.

The above conditions were considered to be ethically important to the study - since the samples were drawn at random and it was considered that some respondents may have suffered from the severe effects of trauma and may have not previously sought assistance.



Pages two through to six of the Interview Survey booklet comprised of several broad questions which were used to assess general occupational stressors as well as specific accounts of traumatic experience.

In the case of Questions 2,3,5,6,7 and 8 about a page length was left in an open response format, so that respondents could write as much or as little as they wished.

Question 4 asked, 'How often in your career have you experienced events that have been particularly distressing to you'. Respondents were asked to tick a box for 'None=0'; 'Once or twice=1'; and 'Three or more=3'.

An early consideration was to use known psychometric instruments which were available for use in the public domain. This was a financial consideration, since the administration of tests, sometimes by third parties or companies which have to be purchased under license, fell outside the budget for this dissertation and study.

A secondary consideration, in using instruments which are freely available, was to purposely exclude instruments which were used exclusively within specific subject groups. For example, a number of tests were conducted using undergraduate students as respondents - which were felt to relate to a preselective group (usually white respondents from middle class backgrounds) and hence the results were thought to be subject to response bias.

Pages eight and nine, therefore, contained a twelve-item General Health Questionnaire (GHQ12; Goldberg 1972) and a six-item Neuroticism Scale (N6; Eysenck and Eysenck 1964). The N1 to N6 variables were used to overcome methodological difficulties associated with the concept of 'chronicity' (Goodchild and Duncan-Jones 1985), previously mentioned above. These questionnaire items were used to provide additional material on the general state of mental well being of the respondents.

Page ten contained questions which would elicit general demographic information on Age; Length Of Service; Gender; Domestic Status; Current Rank or Civil Staff Grade; Current Post and Current length of tenure in that post.

At the conclusion of the Interview Survey phase, the researcher separately talked with the respondent(s) and checked the text for each question for meaning and understanding. This provided a further opportunity to explore the working conditions of the subject, and their perceived organisational stress or traumatic experience, and to provide a debriefing opportunity for the respondents.

It was also used to check whether any individual reported severe anxiety during the survey.

Out of the eighty-nine interviews, only two individuals reported minor reaction to the Interview Survey (i.e. that the questions evoked a particular traumatic response). In those cases the Officer or Civil Staff member was advised to contact the Police Welfare Branch, if they desired. They were given the contact number and asked if they would like to be referred by the researcher on their behalf.

Both declined the offer of help, and indicated that they had already sought assistance elsewhere.

In any case, throughout the whole period of this study the Welfare Branch and Occupational Health Departments were prior advised that possible client-helper contact might be likely.

Because of issues of confidentiality it has not been possible to ascertain if any individuals have sought help, as a consequence of the research questioning, though assurances have been given by the above departments that all such contact will be followed-up.

### 12.1. Interview Survey Distribution.

This phase of the study was arranged so that all visits to the Ten (10) groups mentioned below would take place in April 1994.

One hundred booklets (N=100) were printed so that Police and their Civil Staff Colleagues could be given an opportunity to complete the questions at their own pace. See Table 1 below for distribution and returns.

TABLE 1: Showing Distribution Of The Interview Survey (N=100).

DEPARTMENT	ISSUED
Traffic Patrol	15
Police Station	14
Firearms Branch	10
`Flying Squad' Office	10
Central Communications	09
Public Order Branch	07
Thames River Police	07
Mounted Branch Training School	07
Dog Training Establishment	05
Spoiled	04
Photographic Branch	03
Others (Not Known)	02
Nil Returns	07
TOTAL	100
COMPLETED BOOKLETS	89

Arrangements were made by telephone with the Head of the Branch concerned, to visit the group on an agreed day. The researcher could then observe the staff working normally, and as the opportunity presented itself, the project was outlined to individuals, or groups, the booklets distributed under confidential cover, and all replies collated. Hence the respondents represent an 'opportunity sample' of personnel working within a particular branch or department.

Usually Police Officers in the sample population were given the opportunity to take part in the survey in the morning, so that it would not interfere with their normal shift patterns. The Civil Staff, who work different hours (in some cases normal Office Hours) were given the opportunity to take part in the survey in the afternoon.

It must be noted that there is no difference between the Police version of the Interview Survey and the Civil Staff version. This was a deliberate strategy - since it was desirable to obtain not only the Police 'front-line' opinion of what constitutes a traumatic encounter, but also their Civil Staff Colleagues working 'behind the scenes' within the same department.

For example, Traffic Patrol Officers regularly attend and deal with accidents involving death and/or mutilation and on returning to their base, communicate feelings of anxiety to those willing and available to listen. Therefore Civil Staff colleagues working at Traffic Garages may experience similar trauma second-hand or as 'vicarious traumatising' (McCann and Pearlman 1990).

Similarly, office staff who assist Detectives involved in the complex and sometimes distressing investigation of murders, as part of Area Major Incident Pools (AMIP's), process case papers or load information onto computer systems and are at times exposed to the grisly aspects of the crime - either as photographic or forensic evidence, or in transcribing the formal statements of the victims. This is apart from listening to Officers recount their feelings of trauma.

Research has pointed to the above notions, that Emergency Personnel remote from the scene of a disaster may suffer similar effects to those actually at the scene (McGammon et al. 1988). For this reason it is argued that trauma acquisition may be experienced either first hand, or vicariously and that there may be little difference between the two.

**RESULTS FOR STUDY ONE.**

**13. THE INTERVIEW BOOKLET.**

With reference to the results in this thesis, unless otherwise reproduced below, the reader will be referred to the various Appendices and relevant information.

See Appendix "A" for details of interview survey questions and responses.

**13.1. DESCRIPTIVE ANALYSES.**

The returns for the Interview Booklets across TEN random groups yielded a response rate of N=89, composed of a general sample of Police Officers (N=50) and Civil Staff (N=39) working within a wide variety of different departments.

The booklets were printed in advance and issued to the volunteer respondents. On each occasion the respondents were given an explanation for the survey and were de-briefed afterward.

The means, standard deviation, minimum and maximum range for age, length of service, and length of service in a particular post are shown below in Table 2. Table 3 shows the biographical details of GENDER:

**TABLE 2: Showing Group Distributions Of Age, Length Of Service And Service In Post For All Departments Sampled In The Interview Survey (N=89).**

VALUE	MEAN	STDEV	MIN.	MAX.
AGE	36	9	19	63
SERVICE	12	9	.01	34
IN POST	6	12	.01	34

All Figures Rounded Up.

KEY TO TABLE 2: (MEAN) = Arithmetic average; (STDEV) = Standard deviation away from the mean; (MIN.) = Minimum value in that range; (MAX.) = Maximum value in that range; (AGE) = Age of respondent; (SERVICE) = Respondents police service in years; (IN POST) = Number of years in specialist post at the time of survey.

**TABLE 3: Showing Breakdown of Biographical Details For GENDER For All Respondents In The Interview Survey (N=89).**

VALUE	FREQ.	(%)
FEMALE	31	35
MALE	58	65
TOTAL	89	100%

All Figures Rounded Up.

With respect to the marital status of the respondents, Table 4 reveals that the majority of the respondents (71%, N=63) were married. Table 5 shows the biographical details of the police RANK and civil staff GRADE of personnel for the Interview and other surveys and is shown below.

**TABLE 4: Showing Breakdown of Biographical Details For MARITAL STATUS For All Respondents In The Interview Survey (N=89).**

VALUE	FREQ.	(%)
MARRIED	63	71
RELAT.	11	12
DIVORCED	7	8
WIDOWED	0	0
SINGLE	8	9
TOTAL	89	100%

All Figures Rounded Up.

To provide general information on the sample size of all respondents and for the sake of simplicity, Table 5 below shows the ranks and grades for all three research studies: i.e. The Interview Survey; The METPOL Survey and The MAIN U.K. Survey.

TABLE 5: Showing Breakdown of Biographical Details For Police RANK And Civil Staff GRADE In The Three Surveys (TOTAL SAMPLE SIZE N=751).

STUDY NAMES AND RESPONSE RATES	INTERVIEW SURVEY (N=89)		METPOL SURVEY (N=134)		MAIN U.K. SURVEY (N=528)	
	F	%	F	%	F	%
RANK OR CIVIL GRADE						
CONSTABLE	43	48	33	25	304	58
SERGEANT	5	6	26	19	65	12
INSPECTOR	1	1	10	7	47	9
CHIEF INSPECTOR	1	1	7	5	21	4
SUPERINTENDENT			1	1	9	1
CHIEF SUPERINTENDENT					1	1
DETECTIVE CONSTABLE			17	13	26	5
DETECTIVE SERGEANT			7	5	24	5
DETECTIVE INSPECTOR			5	3	16	3
DET. CHIEF INSPECTOR					4	.8
DET. SUPERINTENDENT					1	.2
ADMIN. ASSISTANT	10	11	2	2		
ADMIN. OFFICER	17	19	5	4		
HIGHER EXECUTIVE	4	5	2	2		
SENIOR EXECUTIVE			3	2		
TECHNICAL GRADE	8	9	14	10	10	1
OTHERS			2	2		
TOTALS (ALL GROUPS)	89	100	134	100	528	100

All Percentages Rounded Up To Nearest Decimal Point.

KEY TO TABLE 5: (F)= Frequency of occurrence; (%)= Percentage of occurrence; (DET.)= Detective; (ADMIN.)= Administrative (clerical grades); (OTHERS)= Respondents rank or grade not accounted for.

The above RANKS and GRADES table shows a reasonable distribution of police ranks from constable to superintendent. Similarly, the civil staff grades from Administrative Assistant to Technical grades are reasonably distributed, proportionate to size for that rank/grade.

In effect, the higher the rank or grade, the fewer people to draw from and the less likely that respondents will be evenly distributed.

Further studies should sample the ranks and grades proportionately to ascertain if there are any affects between lower and higher grades or ranks.

### 13.1.1. Exposure To Distress.

Question 1 of the Interview Survey (see Appendix "A", Q.1.) asked, 'Does the nature of your work expose you to particularly distressing events?'

Table 6 below shows the percentages and frequencies to reports of exposure to distressing events.

**TABLE 6: Showing Percentages And Frequencies Of Reports Of Exposure To Distressing Events In The Interview Survey (N=89).**

	POLICE (N=50)	CIVIL STAFF (N=39)
YES	35 (70%)	17 (44%)
NO	15 (30%)	22 (56%)

This table demonstrates that a higher proportion of police have had exposure (YES) to trauma events than their civil staff counterparts, working within the same departments - allowing for the respective sample sizes.

The remainder of Appendix "A" shows the qualitative analyses of both civilian and police groups i.e. the type of trauma experienced; why the trauma was unique to individuals; and the coping strategies that they used to manage the trauma.

Another question asked of the data is, 'To what extent is the experience of a distressing event significantly different for either police or civil staff groups?'

Using the information contained in Table 6 above, a chi-square ( $\chi^2$ ) test was conducted for the police (group 1) and civil staff (group 2) groups and is reported below in Table 7 - showing the ( $\chi^2$ ) contingency table for police and civil staff groups who have experienced a distressing event (expressed as 'Yes' or 'No').

With a  $\chi^2$  observed value of 5.26 and 1 degree of freedom (df), the results are significant at  $p < .05$ . The critical value is shown as 3.84. This demonstrates that police officers were more likely to experience exposure to traumatic events than would be expected by chance alone and Civilian staff were less likely to experience traumatic events than would be expected by chance alone.

**TABLE 7: Showing A  $\chi^2$  Contingency (2x2) Table For Police And Civil Staff Groups Who Have Experienced A Distressing Event In The Interview Survey (N=89).**

	YES	NO	Total (N)
<b>Police (group 1)</b>	1) 35 [E=29.21]	2) 15 [E=20.79]	50
<b>Civil Staff (group 2)</b>	3) 17 [E=22.79]	4) 22 [E=16.21]	39
<b>Response Totals</b>	52	37	89

KEY TO TABLE 7: (YES) = Previously experienced a distressing event; (NO) = Not previously experienced a distressing event; (1 etc.)= Cell numbers; [E ] = Expected Values for each cell; (Response Totals) = Total responses for either Yes or No for police and civil staff groups; (Total N) = Total number of respondents for either group.

Appendix "A", Question 2 asked, "What is it about your work which you find most difficult or demanding", and the results yield similar responses from each group. The Police Officers' report a broad picture of trauma experience, such as sudden death, dangerous and high risk situations, as well as internal work hassles associated with poor relationships with senior management; the volume of work; and unnecessary or petty work restrictions.

For the civil staff, coming into contact with the public and their colleagues has similar problems: physical and verbal abuse; attitude problems from others; a lack of understanding from senior management; and time/workload restrictions. But civil staff are part of the same organisational structure and may be expected to experience similar stressful encounters.

Question 4 of the Interview Booklet (see Appendix "A") asked, 'How often in your career have you experienced events that have been particularly distressing to you?'

The percentages and frequencies of police and civil staff who report multiple exposure to distressing events (MEXP) were coded as, '0=None', '1=Once or twice' or '3=Three or more' and are shown in below in Table 8 below:



**TABLE 8: Showing Percentages And Frequencies Of Reported Number Of Distressing Events In The Interview Survey (N=89).**

	POLICE (N=50)	CIVIL STAFF (N=39)
NONE	5 (10%)	8 (21%)
ONCE OR TWICE	18 (36%)	20 (51%)
THREE OR MORE	27 (54%)	11 (28%)

More police (N=27; 54%) than civil staff (N=11; 28%) reported exposure to three or more trauma events. Additionally, it was found that greater exposure (indicated by the job tenure; INPOST) was positively correlated to higher reported distressing experiences (INPOST/MEXP;  $r=.29$  at the  $p < .01$  level).

Table 8 above was also used to provide information about the police and civil staff groups who stated that they had experienced no trauma events ('none'); 'once or twice' or 'three or more times' distressing events.

These results were used to calculate a ( $\chi^2$ ) contingency table showing the frequency of experience of distressing events using the procedure outlined in Greene and D'Oliveira (1982) and is shown in Table 9 below:

**TABLE 9: Showing A  $\chi^2$  Contingency (2x3) Table For Frequency Of Experience Of Trauma For The Police And Civil Staff Groups In The Interview Survey (N=89).**

	NONE	ONCE/TWICE	THREE OR MORE	MARGINAL TOTAL RESPONDENTS
POLICE (Group 1)	1) 5 [E = 7.30]	2) 18 [E = 21.35]	3) 27 [E = 21.35]	50
CIVIL STAFF (Group 2)	4) 8 [E = 5.70]	5) 20 [E = 16.65]	6) 11 [E = 16.65]	39
MARGINAL TOTALS (TRAUMA)	13	38	38	GRAND TOTAL N 89

KEY TO TABLE 9: (NONE)= No previous experience of a distressing event; (ONCE/TWICE)= Experienced a distressing event 'once or twice'; (THREE OR MORE)= Experienced a distressing event 'three or more times'; (1 etc.)= Cell numbers; [E ] = Expected Values for each cell; (Marginal Totals Trauma) = Total responses for either 'none; once/twice; or more than three' experiences of trauma for police and civil staff groups; (Grand Total N) = Total number of respondents for either group.

With a  $\chi^2$  observed value of 6.31 and 2 degrees of freedom (df), the results are significant at  $p < .05$ . The critical value is shown as 5.99. This demonstrates that police officers were more likely to experience exposure to traumatic events, 'more than three times' than would be expected by chance alone and Civilian Staff were less likely to experience trauma events, 'more than three times' than would be expected by chance.

Lazarus (1981) refers to a continuum of coping as a complex set of actions or thoughts taking place over a period of time - examples of which are at work in the police and civil staff survey. For example, Appendix "A" (Question 8) asks, "Could you please describe how you would normally cope with distressing or stressful events that have happened to you?"

Here the police strategies differ slightly from the civil staff.

The police mention social drinking of alcohol; using their annual leave to recuperate; a belief in God's protection; debriefing; discussing incidents with colleagues and significant others; physical exercise; hobbies; humour; maintaining a detached attitude; and other coping strategies.

Civil staff grouped responses exclude formal or informal debriefing; physical exercise; and hobbies - which marks another difference between themselves and the police. Officers tend to socialise in groups. They state that they work as a team and play as a team. Civil staff employees in contrast report little social contact with each other outside of the workplace.

### **13.1.2. Descriptive Analysis Of General Mental Health.**

The final questions in the Interview Survey comprised of 12 items of the General Health Questionnaire (GHQ1 to GHQ12; Goldberg 1972) and six items of neuroticism (N1 to N6; Eysenck and Eysenck 1964).

The sum of the GHQ1 to GHQ12 items (GHQTOT) revealed an internal reliability coefficient, Cronbach's  $\alpha = .83$ .

GHQ12 items were then subjected to three different methods of response scoring, based on Likert-type, standard and threshold scoring (suggested by Goldberg 1972):

Likert-type scoring (GHQLIK) calculates the responses in the normal manner on a subjective scale ranging from '0 = Not at all; 1 = Same as usual; 2 = Less than usual; and 3 = Much less than usual', with a minimum range of 0 and a maximum range of 36.

This method provides information on high or low endorsement of the GHQ items only, and cannot be used to make inferences about the relevance of individual scores in comparison with other colleagues.

The standard scoring (GHQSTAN) method calculates the endorsement of items by rescoring the responses as, '0 = Not at all; 0 = Same as usual; 1 = Less than usual; and 1 = Much less than usual', for the negatively scored items, and '0 = Better than usual; 0 = Same as usual; 1 = Less than usual; 1 = Much less than usual' for the positively scored items. The sum of the endorsements have a minimum range of 0 and a maximum range of 12.

Threshold scoring (GHQTHRESH) uses the standard method of scoring and subsequent results to highlight which respondents endorse more items than their colleagues. This is then used to differentiate between subjects who endorse only a few of the GHQ12 items, compared with those who endorse many of the GHQ12 items. In threshold scoring the scores are summed and have a minimum range of 0 and a maximum range of 1. This has the effect of separating the respondents scores into group membership where 0 reported scores are below the threshold and 1 scores are above threshold (Goldberg 1972).

The rationale for GHQTHRESH scoring is to demonstrate which officers fall below a threshold and who perhaps exhibit normal responses to context-free mental health. This is compared with other colleagues who exhibit poor mental health, i.e. above GHQTHRESH scores.

It is the convention to provide information on those who fall below and above the threshold, starting at 3 items, by recoding the responses as follows: '0 THRU 2 = 0' and '3 THRU 12 = 1' (using SPSSPC+ command codes).

Table 10, below shows the means, standard deviations, minimum and maximum ranges for the Likert-type; standard and threshold scores.

**TABLE 10: Showing Group Distributions For Likert-type, Standard And Threshold Scores For GHQ Variables In The Interview Survey (N=89).**

VALUE	MEAN	STDEV	MIN.	MAX.
GHQLIK	9.61	4.33	2	29
GHQSTAN	1.31	2.17	0	10
GHQTHRESH	.22	.42	0	1

KEY TO TABLE 10: (MEAN) = arithmetic average; (STDEV) = Standard Deviation away from the arithmetic mean; (MIN.) = Minimum value in that range; (MAX.) = Maximum value in that range.

Having calculated the GHQTHRESH scores for below or above threshold scores for each of the respondent groups (either 0 or 1) and set the cut-off point at 3 or more items or symptoms endorsed, the GHQ12 scores were additionally calculated for those who endorsed 4 or more items, and so on.

Table 11 below shows the percentage and frequencies of subjects who score at or above the indicated GHQ score level and is reported below:

TABLE 11: Showing Percentage And Frequencies Of Subjects Who Score At Or Above The Indicated GHQTHRESH Level In The Interview Survey (N=89).

		TOTAL GHQ STANDARD SCORES FROM 3 ITEMS UP 11 ITEMS																	
GHQ LEVEL		3		4		5		6		7		8		9		10		11	
GROUP		%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F
0		77	69	87	77	93	83	96	85	96	85	97	86	99	88	100	89	100	89
1		23	20	13	12	7	6	4	4	4	4	3	3	1	1	-	-	-	-

KEY TO TABLE 11: (3) = 3 or more symptoms of GHQ12; (4) = 4 or more symptoms (and so on up to 11/12 items of GHQ; (GHQLEVEL)= Threshold cut-off of symptoms; (0) = Group membership below the GHQ level; (1) = Group membership above the GHQ level; (%) = Percentage of responses; (F) = Frequency of responses.

For the respondents who endorsed between 3 and 11 GHQ items in Table 11 above, these are taken to reflect poor levels of mental well being, according to Goldberg (1972) and Goodchild and Duncan-Jones (1985).

Of the respondents, 23% (N=20) reported at least 3 items which affect their mental well being. The table also shows that the more items endorsed the fewer the respondents, i.e. 1% or (N=1) for 9 symptoms (the highest endorsement). This distribution of GHQ12 scores is broadly similar to that observed in other UK work populations (e.g. Guppy and Weatherstone 1997).

### **13.1.3. Relationship Between GHQ And Neuroticism.**

Elsewhere in Chapter 8 (para 8.1.1. and 8.1.2.) it was suggested that correlations should be conducted between GHQ12 items and N1 to N6 (NAFF) items to offset any doubts about 'chronicity' expressed in the paper by Duncan and Goodchild-Jones (1985). Neuroticism items measure mood swings and sleeplessness and has been used as an indicator of dispositional negative affect states similar to trait anxiety (Parkes 1990).

For the N1 to N6 items, the internal reliability coefficient Cronbach's  $\alpha = .69$ ; with the sum of the endorsements showing a scale mean of 10.81 and a standard deviation of 3.19.

These means and standard deviations compares favourably with that observed by Brough (1998) in a cohort of Metropolitan Police trainees. Brough (1998) observed a mean NAFF of 11.13 and a standard deviation of 2.88.

The GHQ items were then summed (GHQTOT), as were the N1 to N6 variables (NAFF). The overall correlations between NAFF and GHQTOT (concurrent validity) was  $r = .68$  at the  $p < .001$  level.

### **13.1.4. Relationship Between GHQLIK, NAFF and Multiple Trauma.**

A post-hoc comparison (one-way analysis of variance, least significant difference) was also performed where, GHQLIK, negative affectivity (NAFF) and the reports of experiencing trauma either, '0=None'; '1=Once or twice'; or '3=Three or more' (MEXP) were calculated.

GHQLIK was recoded as (1=0) (2=1) (3=2) (4=3). The group variable (MEXP) for multiple experience of trauma ('None; Once/twice; Three or more times) was taken into consideration across the whole sample size (N=89) and for negative affectivity the N1 to N6 variables were calculated as the variable NAFF.

TABLE 12a and 12b below show the results for the one way analyses of variance using the least significant difference test (RANGE LSD):

TABLE 12a: Showing A One-Way Analysis Of Variance For The Variable GHQLIK With MEXP In The Interview Survey (N=89).

SOURCE	DF	SS	MS	F.Ratio	F. Prob
BETWEEN	2	89.51	44.75	2.46	.09
WITHIN	86	1561.72	18.16		
TOTAL	89	1651.24			

  

GROUPS	COUNT	MEAN	SD	SE	95% Conf. Interval For Mean	
GROUP0	14	7.28	2.33	.62	5.94	to 8.63
GROUP1	37	10.03	4.19	.69	8.63	to 11.43
GROUP3	38	10.05	4.81	.78	8.47	to 11.63
TOTAL	89	9.61	4.33	.46	8.69	to 10.52

KEY TO TABLES 12a AND 12b: (SOURCE)= Group Membership; (BETWEEN)= Between Groups; (WITHIN)= Within Groups; (DF)= Degrees of freedom; (SS)= Sum of squares; (MS)= Mean Squares; (COUNT)= No of Respondents in group; (MEAN)= Arithmetic mean; (SD)= Standard Deviation; (SE)= Standard Error.

TABLE 12b: Showing A One-Way Analysis Of Variance For The Variable NAFF With MEXP In The Interview Survey (N=89).

SOURCE	DF	SS	MS	F.Ratio	F. Prob
BETWEEN	2	62.70	31.35	3.24	.04
WITHIN	81	784.25	9.68		
TOTAL	83	846.95			

  

GROUPS	COUNT	MEAN	SD	SE	95% Conf. Interval For Mean	
GROUP0	13	9.00	1.68	.46	7.98	to 10.02
GROUP1	37	11.54	3.34	.55	10.42	to 12.66
GROUP3	34	10.70	3.24	.56	9.57	to 11.84
TOTAL	84	10.81	3.19	.35	10.12	to 11.50

Post-hoc comparisons (least significant difference) indicated that GHQLIK showed significant differences between Group 1,3 (once or twice; three or more times') and Group 0 ('none').

For The NAFF variables there were significant differences between Group 1 ('once or twice') and Group 0 ('none').

This provides some evidence that exposure to trauma for a few individuals is associated with higher scores reflecting both state and trait components of well-being. However, it is not clear whether high frequency of exposure has any greater impact on staff who are exposed to trauma 'three or more times', as against 'once or twice'.

## DISCUSSION OF STUDY ONE.

### 14. Qualitative Data.

Appendix "A" reports the qualitative responses to the Interview Survey. These have been grouped under the heading of Police or Civil Staff replies to the various questions.

The differences between reports of trauma experience for the groups who report experiencing trauma 'once or twice' or 'more than three times' is minor. However, from observation of the police and civil staff and the recorded statements, it was evident that officers experienced trauma, first time, first hand. The civil staff (with few exceptions, such as photographers and scenes of crimes examiners) appeared to experienced trauma vicariously (McCann and Pearlmann 1990) either as a result of processing case papers; transcribing statements; or listening to accounts by police officers of their daily work.

Nevertheless, having to deal with trauma after-the-fact, leaves the respondent with trauma residue (Davidson, Fleming and Baum 1986), particularly in relation to post traumatic stress disorders (Laibow and Laue 1993). Civil staff, therefore, may need as much support as the police themselves - to enable them to cope with internal stress problems and external trauma experiences. Mann and Neece (1990), for example, recognise that in law enforcement, trauma does not only apply to the police, but to victims of police action and ancillary workers associated with the police.

#### 14.1. Levels Of Trauma Exposure.

A key difference between the police and civil staff is the levels of exposure to distress.

Police officers have had more exposure to trauma than civil staff. Table 6 above, identifies that 70% of police report exposure to distress, compared with only 44% for the civil staff. These results are similar to other studies of emergency workers (Anson and Bloom 1988; Bonifacio 1991; Daniels et al. 1997) where the police are seen to be at the forefront of trauma experience. In contrast civil staff colleagues, who provide a necessary and important support function, experience trauma working within an office setting.

But Police Officers report significantly more *repeated* exposure to distress than civil staff. In Table 7 above, 54% of the police officers were exposed to trauma 'more than three times' compared with 28% civil staff.

McCafferty, Domingo and McCafferty (1990) report that PTSD is an inevitable facet of police work, because of the occupational context and nature of the work itself - which highlights an important issue surrounding post trauma reaction: e.g. it is likely that the police are seen to be more at risk and need sensitive support to manage their reaction to trauma (Hetherington 1992) than office workers.

In the present study of police and civil staff, analyses of the GHQ items, particularly in relation to above and below threshold scores, show that the effects of trauma are similar for both groups (see Table 11).

GHQ is a well-validated measure of mental health in organisations and it is expected that about 20-30% of any workforce will endorse 3 or more items of the GHQ - leading to a mis-match between mental health and subjective well-being. The results for the Interview Survey support the notion that poor mental health may lead to officer 'burnout'.

Golembiewski and Kim (1990) argue that 'burnout' in police officers (a syndrome of poor self-image) occurs as a result of the combination of work stressors and strains. Stearns and Moore (1990) report similar findings in a sample of Royal Canadian Mounted Police Officers. More importantly, Burke and Deszca (1986; 1988) argue that 'burnout' occurs at different times in an officer's career and as a result of low expectations and misfits between persons and their current job. The above studies demonstrate that poor mental well-being for police and civil staff has a major impact on self esteem and attitudes towards colleagues, the public, and their work.

However the one-way analyses of variance between GHQLIK, NAFF and exposure to distress ('none; once/twice; three or more times') indicate that the sequential nature of trauma is not as clear-cut as first thought. Evidence is provided in Tables 12a and 12b that well-being (GHQ) is weakly associated with events experienced, 'once or twice' and 'three or more' times, but negative affectivity (NAFF) is associated with frequency of exposure to distress for events reported 'once or twice'. Thus, although not as strong as suspected, a link between exposure to events and lower levels of state and trait psychological well-being was observed.

#### **14.1.1. Coping Strategies For Police And Civil Staff.**

The interview also identified: the types of distressing events that police officers and civil staff encounter (See Appendix "A"); the impact that the trauma has on the workers personally; the implications for their work practices; and the coping methods used to deal with distressing events.

The qualitative information in Appendix "A" also reveals a mix of behavioural strategies for coping with stress and trauma. The verbal reports by the officers and civil staff alike, conform to known methods (see Chapter Seven) and refer to: changing the situation; accommodation; devaluation; symptom reduction; and avoidance (Edwards and Baglioni 1993 and Lazarus 1966). These five forms of coping will be expanded upon in the METPOL and MAIN U.K. surveys below.

Also, with regard to debriefing aspects of work, there is supportive policy within the Metropolitan Police in the use of Trauma Support Teams for officers who have been involved in incidents. It was not clear whether Trauma Support Teams were used to defuse civil staff traumatic incidents. Both police and civil staff, however, have their own welfare associations.



McClellan (1990a; 1990b) offers strong support for the cost-benefit approach to providing employee assistance programmes (EAPs) and Moriarty and Field (1990) argue that a proactive approach by EAPs allows organisations such as the police, to intervene sooner and enable personnel to get well sooner.

Reichman and Badel (1989) also report a study on the introduction of EAPs within a USA State police group, to assist officers overcoming the problems of alcohol and drug abuse. Fain and McCormack (1988) though, make note of the use of alcohol in assisting police officers to cope with trauma - though strongly argue that it is maladaptive coping strategy which increases officers personal stress and that of colleagues. However, the officers in the Interview Survey were adamant that their alcohol consumption is controlled and minor ('a few beers after work; social drink and a meal; drink with other personnel'). In contrast the civil staff mentioned alcohol briefly, either as 'having a drink' or the 'go home and get drunk solution'.

#### **14.2. SUMMARY.**

The Interview Survey was useful as a first port of call in the research. Although some quantitative measures were used and detailed above, the qualitative data provided a richer picture of trauma exposure. Using the police and civil staff verbal accounts of what trauma they experienced and how they coped with it, provided confirmation that police were more at risk of multiple exposure to trauma than civil staff workers.

It also demonstrated that police are subjected to work stress within the police station or department where they worked as well as having to manage distressful and distasteful trauma incidents outside. Conversely, civil staff who supported their police colleagues tended to experience work stress more frequently than exposure to trauma.

In the Interview survey, police and civil staff reported separate instances of trauma and work stress. This provides a meaningful approach to the research, which is also supported by the literature (Hart, Wearing and Headey 1995). Work stress is qualitatively different from work trauma. But there are work/trauma combinations that need to be taken into account - since they represent different levels of distress, plotted along the same continuum.

Civil staff trauma experience, however, was usually confined to second-hand accounts of what was happening elsewhere. But it should be noted that not all civil staff trauma is experienced vicariously and there are special cases to consider: i.e. the work of scenes of crimes examiners and photographers who daily process evidence relating to sudden deaths.

Also, evidence for the sequential nature of trauma was also beginning to be gathered at this early stage in the research. The police officers reported more frequent exposure to trauma, judging by the number of respondents who stated that they had been to 'three or more' events.

Although the verbal accounts of how police and civil staff coped with trauma and work stress were roughly similar, it became apparent that the police had more access to organisational support mechanisms, such as the Trauma Support Teams, or formal and informal debriefing.

Civil staff reported that they were left to their own devices. In other words, they were unsure about who to contact and when it was appropriate for them to seek early intervention, to manage work stress and experienced trauma.

A further issue to be addressed, later, is the psychometric measurement of trauma acquisition, appraisal, coping and trauma outcomes. The Interview Study briefly checked for understanding that work stress and trauma did take place, but a much more sophisticated research programme was needed to tease apart the components of trauma experience - particularly in relation to the questions about repeated exposure to trauma by police officers. The second survey within the Metropolitan Police Service attempted to achieve this objective.

Thus, while there was some evidence of the impact of traumatic experiences on measures reflecting state and trait psychological well-being, it was clear that a more detailed investigation was warranted.

The following studies (METPOL and MAIN U.K. surveys) attempt to expand on this initial investigation by:

1. Expanding on the measures of mental health to encompass PTSD specific measures.
2. Expanding upon the measures of coping processes used, as well as the processes of primary and secondary appraisal.
3. Investigating the relevance of trauma related schema (such as the World Assumptions Scale) in relation to the above processes.

## 15. STUDY TWO: THE METROPOLITAN POLICE SURVEY.

It became apparent during the early stages of the research that there is no instrument which can accurately measure the sequential affects of trauma. In the introduction it has been stated that the concept of 'sequential trauma' is under-researched and efforts to determine the effects of traumatic encounters have focused on the event; the impact of the event; the individuals cognitive appraisal of the event; how that individual copes; and the outcome which manifests itself post-event.

Each of these domains have been tested thoroughly, but invariably as separate components by individual authors.

The rationale behind this second survey was to devise an psychometric instrument battery which could assess each of the above domains separately at first, and then in concert with each other - without necessarily burdening the respondent with a cumbersome questionnaire.

See Appendix "B" for details of the Sequential Trauma Questionnaire (Metropolitan Police Version).

A covering letter was attached to the questionnaire, as in the Interview Survey mentioned above - detailing the nature and purpose of the study and the conditions of participation.

A similar note of caution was added to the effect that the questions may elicit a distressing reaction and the subject was advised to seek assistance for his or her problem if required.

Page two detailed the instructions for completing the survey and how to return it to the researcher in a freepost envelope.

The Metropolitan Police (METPOL) survey sought information on Work Problems; Domestic Problems; Impact Of Events; Cognitive appraisal of events; the presence or absence of post traumatic stress disorder (PTSD) symptoms; primary and secondary appraisal; context-free mental health and negative affectivity; coping measures; internal models of the world; best practice in intervention; and biographical data.

Which particular item battery was used; the rationale for its use; the scale measurement; and scoring will now be described below.

The variable names used in the SPSSPC+ analysis are shown in brackets - e.g. (WORK1 to WORK10).

### 15.1. Work Problems.

Page three, paragraph 1.1. consisted of 10 items relating to 'work problems' (WORK1 to WORK10) using a 5 point Likert type response format where, '1 = Has not applied' to '5 = Has very often applied'.

Respondents were asked to report if they had been affected by the work problems in the recent past.

These items were based on a previous study (Peters-Bean 1993) where police officers reported general occupational stressors of having to attend to and deal with work related matters involving: violent persons or prisoners; tedious administration and paperwork; accidents involving serious injury or damage; sudden deaths and death messages; the abuse and care of children; domestic violence; public disorder; Court proceedings; chemical/physical hazards; and biological hazards.

Although these categories may seem arbitrary, the literature suggests that these problems might lie outside of the specific control of the police officer. Peters-Bean (1993), for example, reports that these stressors occurred with relative frequency in a sample of officers who were attending the METPOL Welfare Branch for counselling (see also Anson and Bloom 1988; Brown and Campbell 1990; Davidson and Veno 1980; Gaines and Jermier 1983; Kroes et al. 1974; Love and Singer 1988; Pendleton et al. 1989).

The cumulative nature of these stressors is hypothesised as a contributory factor in the development of sequential trauma. Respondents who report, 'Has often applied=4' or 'Has very often applied=5' are more likely to be exposed to work trauma than their colleagues who report, 'Not applied=1'; 'Hardly ever applied=2'; or 'Sometimes applied=3'. The frequency of the work problems reported by police (for scale 4 or 5) is anticipated to occur in about 10% of the sample size, based on Peters-Bean (1993).

Page four, paragraph 1.2. suggested that the specific nature of work problems were perceived as being unique to an individual, and so the subjects were asked to provide five more problems if they thought that these may have affected their work (WORKEX1 to WORKEX5).

The purpose of question 1.2. was two-fold:

Firstly, it was used to elicit responses which may have not been covered within the previous 10 work items, such as reported difficulties with supervisors or colleagues; reported discipline proceedings and so on.

Secondly, it was used to determine if there was a cumulative aspect to the nature of the work issues themselves, as it was considered that subjects who had regularly encountered potentially traumatic situations could record many more items that were perceived as being significant or 'unique' to them.

Page four, paragraph 1.3. continued - using an open response format. It was argued that subjects who offered up to five additional work problems should be given an opportunity to explain why the first additional item was particularly significant or anxiety-making.

Any additional responses under WORKEX1 to WORKEX5 would indicate the possible existence of sequential traumatic stressor effects (i.e. the 10 original items plus other reported incidents) and that subjects who offered no further items might exhibit little detrimental sequential effects other than general work stressors.

See Appendix "C" for details of the extra work problems elicited from the subjects and why they were significant to them.

Paragraph 1.4. asked subjects if they were still experiencing this problem, and to respond by ticking a box for either, 'No'; 'Sometimes'; or 'Often' (WORKST). This was used as a final check that WORKEX problems had significance for the person reporting.

Paragraph 1.5. asked when the problem first occurred in 'years' and 'months' (WORKOC) and was used to anchor the problem within a specific timescale. The means, standard deviations, minimum time and maximum time values could then be established, for the respondents across the population sample.

#### **15.1.1. Domestic Problems.**

Page five, paragraph 2.1, used a 10 item 'problems beyond work' battery, with a 5 point Likert type scale ranging from '1 = Has not applied' to '5 = Has very often applied' (DOM1 to DOM10). Respondents were asked to report if they had been affected by the domestic problems in the recent past.

Again these items were drawn from a previous study by Peters-Bean (1993) as contributing to anxiety or stress outside of work. It is argued in the METPOL survey that it is difficult to separate work problems from domestic problems and that some overlap occurs in either domain.

Research by Frankenhaeuser (1980), for example, regards stress as a process of 'transactions' between the individual and environment (See also Lazarus 1981; Lazarus and Folkman 1986). And other studies have offered evidence that stressful life events will effect an individual only if certain unfavourable internal or external factors are present (Dohrenwend et al. 1980; Burke 1988a; Selye 1956) and that behavioural dysfunction or illness will usually result.

For the above reasons this question was included to assess whether domestic problems had an important detrimental effect on the officer outside of work - and included dimensions such as general sickness (or absenteeism); personal injury or accidents; housing matters; alcohol or drug misuse; stress related incidents; demands of work on social life; absence of emotional support; matters involving wife or 'significant others'; familial relationships; and financial difficulties.

Again, it should be noted further that these problems were frequently reported to the Police Welfare Branch by officers attending for counselling (Peters-Bean 1993).

#### **15.1.2. The Impact Of Events Scale.**

Page six, paragraph 3.1., used an 'Impact Of Event' open response format of about half a page, to elicit events which have been particularly traumatic (known as an, 'IES referent'), as distinct from previous questions concerning organisational problems or domestic traumata (Horowitz, Wilmer and Alvarez 1979; Horowitz, Wilmer, Kaltreider and Alvarez 1980; Horowitz and Wilmer 1981; Horowitz 1990; 1993).

This is a widely used and validated instrument which assesses traumatic encounters on dimensions such as: 'intrusion' (characterised by unbidden thoughts and images, troubled dreams, strong pangs or waves of feelings and repetitive behaviour) and 'avoidance' (characterised by ideational constriction, denial of meanings and consequences of the event, blunted sensation, behavioural inhibition or counterphobic activity and awareness of emotional numbness).

However, there are some methodological problems associated with its use.

For example, Horowitz, Wilmer and Alvarez (1979) have indicated that the items for the self report instrument were derived from frequent statements used to describe episodes of distress - by persons who had experienced recent life changes. Psychotherapy patients and non patient volunteers who were exposed to serious life events were asked to recount such episodes within 'the past week'.

Horowitz et al. (1979) also reports that subjects showed signs of forgetfulness and less conviction if the trauma event took place longer than one week and a further difficulty in reporting significant trauma markers within a few days of their distress.

Later, Horowitz et al. (1979) concluded that the experience of a single and intense intrusive image was similar in its effects to multiple episodes of mildly intrusive images. But the authors did not adequately measure the aspect of 'multiple episodes' within the IES scale, since it referred to 'any particular event' as against probing for multiple events over a longer period of time.

It was considered prudent in the METPOL survey, that to concentrate on recent response levels and exposure to incidents of less than a week may not account for perceived effects of traumatic experience, which could have taken place over a longer period of time (i.e. months or years). By specifically opening up the time scale the current research might be able to account for the cumulative aspects of events which occur with more frequency.

Another problem concerns the actual referent. Horowitz et al. (1979) report that the evaluation of life events is possible through questionnaires that list situational changes - which offer quantitative estimates of the 'cumulative' impact of trauma on individuals or on groups. The authors then devised an instrument which measured the current degree of trauma impact as a direct result of one specific event, instead of many events occurring over time.

As the 'cumulative' aspect was not explored by Horowitz et al. (1979) - in the METPOL survey, it was considered that, by extending the referent time scale to more than seven days - by adding a statement, 'thinking about the recent past, at home or at work' - an assessment of the sequential (cumulative) aspects of traumatic encounter could perhaps be made. Where respondents were given an opportunity to relate to an incident which is particularly traumatic over a longer period of time, or several incidents which may have important sequential affects; the time scale may be an important indicator of cumulativeness.

For the above reason, the IES referent itself was also coded in a specific way - to measure whether one or more events occurred. The IES referents were analysed and coded as, '0=No trauma event (elicited)'; '1=One trauma event'; '2=Two trauma events'; and '3=Three or more trauma events'. In this manner, the METPOL survey sought to address the question of multiple episodes of trauma occurring in police officers,

Further, paragraph 3.2. asked the respondents if they were still experiencing the problem? (IEST) by ticking a box for either, '0=No'; '1=Sometimes'; or '2=Often'. This was added as a final check that the IES variable had some current significance for the person reporting.

Paragraph 3.3. asked when the problem first occurred (IESOC) and was used to place IES referents within a specific time frame by asking subjects to write their reply in 'years' and/or 'months'. Across the sample size, the means, standard deviations, minimum and maximum time scales for IES referents could then be established.

It should be noted that in the Horowitz et al. (1979) original paper, the scale measurement is shown as '1=Rarely applies'; '3=Sometimes applies'; and '5=Often applies' but the METPOL and MAIN U.K. surveys use the scalar points below, to make them consistent with the other linear scales used in the survey.

Also Horowitz et al. (1979) did not include negative replies (i.e. '0=Does not apply') in his survey. The METPOL survey, however, included this as means of preserving confidentiality for the respondents who may wish to decline to write down an IES referent - for fear that it might betray a confidence held by themselves or a colleague. In other words, where respondents were unable or unwilling to elicit an IES referent they could still respond: i.e. by circling '0=Does not apply'; '1=Rarely applies'; '2=Sometimes applies'; or, '3=Often applies'. Thus they would not be hampered by being asked to measure a non-intrusive or non-avoidant response to the event. Conversely, where they may decline to record an IES referent (for personal or sensitive reasons) they could respond to questions of intrusion or avoidance if they wished.

Page seven, therefore shows 7 items of 'intrusion' (Horowitz et al. 1979) for frequency of occurrence (INTRUDE1 to INTRUDE7) using a 4 point Likert format ('0 = Does not apply, 1 = Rarely applies, 2 = Sometimes applies and 3 = Often applies') and the intensity of occurrence (INTEX1 to INTEX7) using a 4 point Likert format ('0 = Does not apply; 1 = Mildly occurred, 2 = Moderately occurred, 3 = Severely occurred'). The respondents were asked to circle 0,1,2, or 3 for both frequency and intensity of 'intrusion' as appropriate.

Page eight, shows 8 items of 'avoidance' (Horowitz et al. 1979) for frequency of occurrence (AVOID1 to AVOID8) using a 4 point Likert format ('0 = Does not apply, 1 = Rarely applies, 2 = Sometimes applies and 3 = Often applies') and the intensity of occurrence (AVEX1 to AVEX8) using a 4 point Likert format ('0 = Does not occur, 1 = Mildly occurred, 2 = Moderately occurred, 3 = Severely occurred'). The respondents were asked to circle either 0,1,2 or 3 for both frequency and intensity of 'avoidance' as appropriate.

### **15.1.3. Post Traumatic Stress Disorder.**

In keeping with notion explored in this current research study - that traumatic encounters potentially engender sequential affects (i.e. the prolonged and repetitive exposure to such traumata, will lead to one or more symptoms of intrusion, avoidance or hyperarousal) - page nine paragraph 4.1. included 17 items based on the criterion for the diagnosis of Post Traumatic Stress Disorder (PTSD1 to PTSD17; DSM-III-R; American Psychiatric Association 1987).

Davidson and Foa (1991) argue that PTSD is not just a general stress response in anxiety-prone people. A traumatic event is necessary (etiologically connected), but the diagnosis itself sits within the non-etiological group of anxiety disorders.

This may be due to the problems associated with Criterion A, where the event is described as, 'outside the range of usual human experience' and as being 'markedly distressing to almost anyone.'

Davidson and Foa (1991) argue that this alone reduces the effectiveness of diagnosis in PTSD, since it excludes persons who develop PTSD-like symptoms in response to an event considered to be within the normal range of individual human experience, but distressing to most others. It also excludes the possibility of more than one traumatic event occurring within a lifetime.

The prevalence of PTSD symptoms after low magnitude events may contribute to the notion that anxiety and traumatic encounters are sequential. Extreme stressors may not automatically lead to the onset of PTSD, but the perception of 'intense fear, terror and helplessness' (DSM-IIIIR) associated with the event, may be the subject of individual appraisal of the intense nature of event.

In other words, prolonged and repetitive exposure to traumata may either reduce the magnitude of psychic trauma for similar events - and result in fewer symptoms - or may serve to reinforce PTSD like symptoms (Duckworth 1990).

Duckworth (1990) also maintains that police officers may exhibit PTSD-like states without necessarily acquiring PTSD. This may be due to a variety of factors, such as the difficulties associated with the diagnosis of PTSD - which is primarily viewed as being event-focused or stressor-specific.

Further, there can be no assumption that clinically significant psychological syndromes are ultimately discrete, with clearly defined boundaries (as in PTSD), but may be linked to other anxiety disorders such as 'brief psychiatric episodes'; 'disorders of extreme stress not otherwise specified' (DESNOS; Davidson and Foa 1991); 'complex PTSD' Herman (1992); or, syndromes where the trauma is intense but short lived.

The inclusion of a PTSD measure (PTSD1 TO PTSD17) was designed to elicit specific responses of intrusion, avoidance and hyperarousal - to test whether there could be a psychometric measure of PTSD.

These items, or symptoms were divided into separate symptom clusters within the item bank, as follows:

Responses to Criterion B states (characterised by intrusive symptoms which are intermittent, phasic and specific to PTSD) are clustered within the variables PTSD1 to PTSD4.

Criterion C states (characterised by avoidance and psychic numbing or phasic avoidance of reminders of the traumatic encounter - again specifically related to PTSD) are clustered within the variables PTSD5 to PTSD11.

Criterion D (characterised as hyperarousal symptoms which are phasic, tonic, or enduring components of PTSD) are clustered within the remaining items PTSD12 to PTSD17.

These 17 PTSD items are presented to the respondent, as a complete item bank, using a 7 point Likert type scale (i.e. '1 = Not present' to '7 = 'Extremely Severe') suggested by the paper on the Brief Psychiatric Rating Scale by Overall and Gorham (1962).



The primary purpose is to determine whether there are any apparent and/or lasting sequential trauma affects, manifested in either the presence or absence of one or more PTSD like symptoms.

Secondly it is the intention in the METPOL survey to move away from the generally accepted idea that Criterion A ('beyond usual human experience') referents specifically relate to one event of severe magnitude, as against several events of lesser magnitude.

Respondents may report one or more items associated with prolonged and repetitive exposure to events, but not necessarily develop full-blown PTSD. Where all 17 items are endorsed as being 'extremely severe' to the individual, there may still remain doubt about what would constitute Criterion A or 'usual human experience' within the police context, for the reasons outlined in the above research by Davidson and Foa (1991) and Duckworth (1990).

#### **15.1.4. Cognitive Appraisal.**

Pages ten and eleven have been designed to unpack the variables associated with the cognitive appraisal of traumata, using the 8 item primary appraisal statements and the 6 item secondary appraisal statements suggested by Dewe (1991b).

The responses use a 5 point Likert type scale, i.e. where '1 = Not at all' to '5 = A great deal'. Respondents were asked to circle which choice was appropriate to them.

Dewe (1991b) postulates that appraisal refers to the meaning individuals give to a particular encounter, and can be separated into those in which an individual recognises that they are under stress (Primary) and those in which coping, resources and options are evaluated (Secondary).

The first 8 primary appraisal items (PRIME1 to PRIME8) were adapted from those developed by Folkman et al. (1986) and involve dimensions such as, not achieving an important goal; losing the respect of someone important; appearing to be incompetent; feeling embarrassed; appearing unsupportive; difficult to get along with; and appearing to be in the wrong.

These items were selected on the basis of the Interview Survey responses. Police Officers and Civil Staff alike reported similar dimensions of perceived inadequacy at appraising and dealing with stressful or traumatic encounters within the work environment. They further reflect what Dewe (1991b) calls the 'relative contribution, importance and role' of appraisal - i.e. how one thinks in a particular stressful encounter, may determine how they will cope with that encounter.

The 6 secondary appraisal items (SECOND1 to SECOND6) were also chosen because they best mirrored the organisational forces that act upon the individual. Dewe (1991b) adapted the first 4 items as suggested by Folkman and Lazarus (1980) but added two others - 'one where work bureaucracy made it difficult to deal with'; and, 'one where, if I dealt with it in the way I wanted, it would have made things difficult for me.'

Again these items sum up the concerns of the personnel who took part in the Interview Survey, that interference with the cognitive appraisal of events, by reducing the opportunity for individuals to cope, may be the result of organisational constraints placed upon them.

Both primary and secondary appraisal are important to the current survey of sequential trauma. Officers and Civil Staff work in fairly well defined hierarchical rank and grade structure. Whilst procedures and operating rules are clearly provided (and where possible breaches of these rules can lead to discipline proceedings), there is a need for police officers to obey the strict letter of the rules but, at the same time, to operate within a more 'fluid' interpretation of those rules.

This results in a confusing dichotomy for the police, where acting on their own initiative can actually bring about conflict between themselves and the organisation they support.

The primary and secondary appraisal items (Dewe 1991b) therefore not only test the underlying assumptions associated with work stressors, but may also acknowledge the importance of measuring the more 'covert' aspects of organisational culture. Hence any move away from the cultural milieu, or any interference from other sources within the police bureaucracy, might lead to maladaptive primary and secondary appraisal mechanisms. Thus, page eleven paragraph 5.3., also included a number choice format (SECEX) to test whether any particular item was influential in attempts at secondary appraisal: 'Looking at the above list of items which have been numbered 1 through to 6. Would you write down the item number which best describes how the incident affected you personally.'

This question was used to assess how secondary appraisal (which might be influenced by internal organisational bureaucracy) might affect the strategies for secondary appraisal and subsequent coping.

#### **15.1.5. General Health Questionnaire.**

Page twelve, paragraph 6.1., contained the GHQ12 measures of context free mental health (Goldberg 1972) - to gather information about how the respondent was currently feeling at the time of the survey.

This is linked to the other parts of the questionnaire. For example, WORK and DOMESTIC items were anchored 'IN THE PAST'; as were the IES referent ('IN THE PAST AT HOME OR AT WORK') and frequency and intensity of intrusion and avoidance items, were similarly linked to the IES referent ('IN THE PAST').

The PTSD-like symptoms measured responses of intrusion, avoidance and hyperarousal ('IN THE PAST'); and primary and secondary appraisal mechanisms referred to 'PAST' traumatic life events.

All the above measures are used retrospectively to examine the product and nature of the traumatic event, its appraisal, some aspects of coping and some aspects of outcome of the event.

But the GHQ items (GHQ1 to GHQ12) bring the previous traumatic experience into the foreground, by eliciting responses confined to, 'OVER THE LAST FEW WEEKS' - and may allow comparisons (or possible biases in dissimulation) to be made between past responses and current indications of context free mental health.

Page thirteen, 6 item neuroticism scale (N1 to N6) proposed by Eysenck and Eysenck (1964) because of the 'chronicity' problems associated with GHQ12 items (Goodchild and Duncan-Jones 1985). The rationale for including the N1 to N6 items has been previously discussed in the Interview Survey methodology above.

#### 15.1.6. The Cybernetic Coping Scale.

Coping was discussed in this dissertation in Chapter 7., paragraph 7.1.3. particularly in relation to the 40 item Cybernetic Coping Scale (CCS; Edwards 1991; Edwards and Baglioni 1993).

The METPOL survey used a shortened version of this instrument, on page fourteen and fifteen (CCS1 to CCS24), based on the results by Edwards and Baglioni (1993), using the highest factorial loadings reported in their study.

Five forms of coping are reported: i.e. attempts to bring the situation into conjunction with desires (changing the situation); adjusting desires to meet the situation (accommodation); reducing the importance associated with the discrepancy (devaluation); improve well-being directly (symptom reduction) and directing attention way from the situation (avoidance).

The CCS1 to CCS24 item bank used a 5 point Likert type response format ranging from, '1 = I do not use this technique' to '5 = I always use this technique'. Respondents were asked to circle the number which best describes how frequently they use the coping method itself.

#### 15.1.7. Personal Views About The World.

There was a further need to tap whether personal views of the world and people, had an influence on coping strategies. The rationale for including such a measure, in the METPOL survey, was discussed extensively in Chapter Seven.

Work with victims of extreme trauma suggests that people ordinarily operate on the basis of important assumptions about the world and themselves. These have been described earlier as 'traumatic signatures'.

The trauma signatures serve as pre-existing theories that provide information for anticipating the future, and also guide what victims notice or remember, as well as integrating and interpreting novel information (Janoff-Bulman 1989).

On pages sixteen to eighteen a 32 item World Assumption Scale (WAS1 to WAS32; Janoff-Bulman 1989) was included, using a 6 point Likert type scale ('1 = Strongly Agree' to '6 = Strongly Disagree'). Respondents were asked to circle the number which best reflects the view that they hold about the world.

The World Assumption Scale items contain eight variables (composed of 4 items each) associated with personal views about people and the world, and have been named in the METPOL study as: 'benevolence towards the world (BENWOR); Benevolence towards people (BENPEP); Justice (JUSTICE); Controllability (CONTROL); Randomness (RANDOM); Self Worth (WORTH); Self-Confidence (SELFCON); and the forces of chance (LUCK).

In accordance with the procedure suggested by Janoff-Bulman (1989), the WAS1 to WAS32 variables are reverse scored for items 2,8,12,18 and 31. The items are then grouped and summed as follows:

WAS1,7,14,19 = JUSTICE; WAS2,4,12,26 = BENPEP; WAS3,6,15,24 = RANDOM;  
WAS5,9,25,30 = BENWOR; WAS8,18,28,31 = WORTH; WAS13,17,23,27 = SELFCON;  
WAS11,20,22,29 = CONTROL; WAS10,16,21,32 = LUCK.

#### **15.1.8. Additional Information.**

To assist with future research into sequential trauma, page nineteen paragraph 8.1. included two free-response text boxes.

The first text box asked the respondent to make additional comments about the nature of trauma which they felt were important to the METPOL survey. This question was used as a catch-all, to find out if there was anything that the researcher might have missed. The respondents could also add or comment on anything that they had responded to in the previous sections.

The second text box asked for observations about the METPOL questionnaire itself to assist with future designs of the sequential trauma items.

Page twenty, paragraph 8.3. included a 10 item 'Best Practice' section (BEST1 to BEST11).

The BEST1 to BEST10 items covered various aspects such as: clearer information; in house counselling; external counselling; clearer supervisory training; clearer individual training; in house debriefing; external debriefing; self help packages; specific newsletters; or regular features on stress and trauma in in-house journals.

These categories were added to elicit information on low level intervention strategies (Peters-Bean 1993). Respondents were asked to tick, 'YES' or 'NO' to indicate which would be helpful for them or their colleagues.

In addition, an open response category (BEST11) was included to elicit further responses. Respondents could add comments as to the suitability or otherwise of the above 10 items, or additional methods of intervention which were not considered.

#### **15.1.9. Biographical Details.**

Page twenty-one, paragraph 9, asked for information on the AGE; CURRENT LENGTH OF SERVICE; GENDER; DOMESTIC STATUS (Married and living with spouse, Not married but in a steady relationship, Divorced or Separated, Widowed, or Single); CURRENT RANK OR GRADE; CURRENT POST; and LENGTH OF SERVICE IN CURRENT POST.

These details would be used to identify possible correlations between perceived anxiety, distress or traumatic experience. With the possibility of identifying 'at risk' groups, in terms of the demographics and group, branch or department identification.

#### **15.1.10. Distribution Of Questionnaire.**

In the METPOL survey 21 different groups were sampled within the Metropolitan Police.

Some groups were comprised of departments previously contacted during the Interview survey: (Traffic Patrols; Firearms Branch; Mounted Branch Training School; Dog Training Establishment; the 'Flying Squad' (Robbery) and Photographic Branch (Civil). Although different respondents were chosen for the questionnaire survey.

Further groups (not previously contacted) were chosen at random from the Police Constabulary Almanac to provide a broad and diverse range police groups covering the ranks from Constable to Chief Inspector and above, e.g. The Diplomatic and Protection Branch; Hendon Driving School; Complaints Department; Special Branch; and all Eight areas of the Metropolitan Police District.

The civil staff groups were drawn from Aliens Registration Office; The Forensic Laboratory Fire Investigation Unit and Fleet Drivers.

Tables 13a and 13b show the groups sampled and the method of distribution for the METPOL survey. All questionnaires were mailed on the same day (20th June 1994) to individual personnel, or where shown, were distributed through a third party.

The sample size does not entirely represent the population for a given group. This was due to factors such as 'positive vetting' where the security of personnel (Diplomatic Protection Group and Special Branch) is such that a full list of staff could not be made available.

An alternative strategy would be to sample all forty-five thousand staff of the Metropolitan Police (civilian and police). But this would have to be carefully balanced to encompass all ranks, grades, genders, and occupations and would involve considerable expense and resource considerations.

A group sample technique was devised as the most effective means of determining the sample size and distribution in the METPOL survey, aiming for a return of 30% or above, of the group sampled.

In total, 500 questionnaires were printed and sent via the internal despatch system to named Personnel - drawn at random from list provided by the Heads of Branches, or suggested by them.

This yielded an overall return of 27% or N=134 as shown below:

TABLE 13a: Showing Distribution And Returns For The Metropolitan Police Survey Within A Population Of Twenty-One Groups (N=1825).

DEPARTMENT	N	n	N%	nRET	R%
Mounted Branch	227a	30	13	10	33d
Firearms Branch	222a	20	9	1	5e
Dogs Branch	65b	20	31	4	20e
Photographic Branch	110a	20	18	7	35d
Flying Squad (Robbery)	44a	22	50	3	14e
Aliens Office	60a	30	50	5	17e
Diplomatic Protection	N/Kc	20	0	9	45d
Laboratory Fire Units	N/Kc	20	0	7	35d
Traffic Patrol	76a	20	26	7	35d
Driving School	30b	15	50	5	33d
Complaints Branch	76a	10	13	4	40d
Special Branch	N/Kc	20	0	3	15e
Fleet Drivers	N/Kc	20	0	5	25e
1 AREA Sergeants	493a	70	14	21	30d
2 AREA C/I TO CH/SUPT	N/Kc	20	0	9	45d
3 AREA Inspectors	127a	20	16	6	30d
4 AREA Det. Inspectors	22a	10	45	3	30d
5 AREA Det. Constables	129a	53	41	13	25e
6 AREA Constables TSG	87a	35	40	5	14e
7 AREA PS/INSP TSG	16b	5	31	0	0e
8 AREA Det. Sergeants	41a	20	49	4	20e
OTHERS (UNKNOWN)	0	0	0	3	0e

All Percentages Rounded Up To Nearest Decimal Point.

TABLE 13b: Showing Totals For Distribution And Returns For The Metropolitan Police Survey Within A Population Of Twenty-One Groups (N=1825).

GROUPS	N	n	N%	nRET	R%
TWENTY ONE (21)	1825	500	27%	134	27%

All Percentages Rounded Up To Nearest Decimal Point.

KEY TO TABLES 13a AND 13b: (a) = Total establishment of department; (b) = Opportunity sample from list provided; (c) = Opportunity sample distributed through third party; (d) = Represents 11 groups with returns at more 30% or more; (e) = Represents low or absent returns for 10 groups; (N) = Total population of 21 groups where known; (n) = Sample selected from 21 groups; (N%) = Percentage of selected sample or (sample (n) divided by population (N) times 100); (nRET) = Sample returns from 21 groups; (R%) = Overall percentage of sample returns from 21 groups or (nRET divided by n times 100).

**RESULTS FOR STUDY TWO.**

**16. THE METROPOLITAN POLICE SURVEY.**

The METPOL survey assessed dimensions such as the nature of traumatic encounters, their appraisal, coping and outcomes within the specific groups of Police and Civil Staff.

See Appendix "B" for details of the questionnaire used in the survey.

**16.1. DESCRIPTIVE ANALYSES.**

Table 14 below shows the means, standard deviation, minimum and maximum ranges for the variables Age, length of service and length of service in a particular post:

**TABLE 14: Showing Group Distributions Of Age, Length Of Service And Service In Post For All Departments Sampled In The METPOL Survey (N=134).**

VALUE	MEAN	STDEV	MIN.	MAX.
AGE	37	8	17	64
SERVICE	16	7	1	32
IN POST	5	6	.01	22

All Figures Rounded Up.

The means, standard deviations, minimum and maximum ranges are calculated in YEARS. The minimum value for the 'In Post' variable (.01), is shown in months: i.e. between 1 months service and 22 years service in a particular post.

Table 15, below, shows the breakdown of biographical details for the GENDER variable in the METPOL survey:

**TABLE 15: Showing Breakdown of Biographical Details For GENDER For The Respondents In The METPOL Survey (N=134).**

VALUE	FREQ.	(%)
FEMALE	18	13
MALE	116	87
TOTAL	134	100%

All Figures Rounded Up.

In this respect the groups are fairly representative of the percentage of male and female populations of the Metropolitan Police service as a whole.

Table 16 below shows the biographical data for the marital status (MARSTAT) of all the respondents in the METPOL survey.



TABLE 16: Showing Breakdown of Biographical Details For MARITAL STATUS For The Respondents In The METPOL Survey (N=134).

VALUE	FREQ.	(%)
MARRIED	96	72
RELAT.	13	10
DIVORCED	11	8
WIDOWED	2	1
SINGLE	12	9
TOTAL	134	100%

All Figures Rounded Up.

KEY TO TABLE 16: (FREQ.)= Frequency of occurrence; (%) = Percentage of occurrence; (RELAT.)= Not married but with a steady relationship; (DIVORCED)= Includes separation from spouse.

Table 5, above, shows the distribution of police RANKS and civil staff GRADES for three surveys in this dissertation.

#### 16.1.1. Work Problems.

Table 17 below shows the percentage and frequency of responses (in brackets) to work related problems (WORK1 to WORK10). In the METPOL survey, all the items were summed to produce a composite score with a mean of 27.2; standard deviation of 9.6; a minimum value of 10; and a maximum value of 47 out of a possible 50. The internal consistency (Cronbach's alpha) for the WORK1 TO WORK10 composite score is  $\alpha.89$ .

All percentages in Table 17 have been rounded up to the nearest decimal point.

KEY TO TABLE 17: (1)= 'Has not applied'; (2)= 'Has hardly ever applied'; (3)= 'Has sometimes applied'; (4)= 'Has often applied'; (5)= 'Has very often applied'. ( )= Numbers in brackets are frequency of responses; (No.) = WORK1 to WORK10.

TABLE 17: Shows Percentage And Frequency Of Responses To Work-Related Problems (WORK1 to WORK10)  
In The METPOL Survey (N=134).

No.	WORK CATEGORY AND VALUES	1	2	3	4	5
1.	Work related matters involving violent persons and/or prisoners	27% (36)	10% (13)	25% (34)	22% (29)	16% (22)
2.	Work related matters involving tedious administration/paperwork	7% (9)	5% (7)	20% (27)	31% (41)	37% (50)
3.	Work related accidents involving serious injury and/or damage	35% (47)	20% (27)	25% (34)	7% (9)	13% (17)
4.	Work related sudden deaths and/or death messages to relatives	42% (56)	13% (17)	24% (32)	13% (18)	8% (11)
5.	Work related matters relating to abuse and/or care of children	40% (54)	23% (31)	19% (25)	13% (17)	5% (7)
6.	Work related matters relating to domestic violence	36% (48)	10% (14)	19% (25)	25% (34)	10% (13)
7.	Work related matters involving public order and/or disorder	27% (36)	13% (17)	20% (27)	26% (35)	14% (19)
8.	Work related matters involving Criminal/Civil courts proceedings	18% (24)	20% (27)	18% (24)	21% (29)	23% (30)
9.	Work related matters involving chemical and/or physical hazards	46% (61)	23% (31)	13% (17)	9% (12)	9% (13)
10.	Work related matters involving hazards such as blood/urine etc.	34% (45)	12% (16)	22% (30)	15% (20)	17% (23)

Work related stressors included tedious administration duties, dealing with violence and violent prisoners, court proceedings and maintaining public order. Table 18, below, provides supporting evidence for the effects of work related problems - by using the following procedure to differentiate between respondents who experience either work related stress, or trauma related stress.

For example, WORK1,3,4,5,7 refer to problems which may engender trauma directed towards the person (WORKTR), whereas WORK2,6,8,9,10 refer to non-trauma problems (NONTRAU) - since they represent work stressors affecting the person.

The WORKTR and NONTRAU variables were summed and recoded as `1 THRU 3=0 and `4,5=1' to partition the scores into the two groups into those who report work problems experienced, `No to sometimes=0' and `Often to very often=1' The percentages and frequencies are reported in Table 18:

**TABLE 18: Showing The Percentages And Frequencies Of Response For The WORKTR And NONTRAU Variables In The METPOL Survey (N=134).**

VARIABLE NAMES AND VALUES	WORKTR	NONTRAU
0	36% (48)	19% (25)
1	22% (30)	27% (36)
2	22% (30)	17% (23)
3	10% (13)	20% (27)
4	8% (10)	10% (14)
5	2% (3)	7% (9)

All Percentages Rounded Up.

Thus a combined 10% (N=13) scored 4 and 5 (`has often/very often applied') for all five of the work trauma items (WORKTR), whilst a combined 17% (N=23) scored 4 and 5 for all five of the non trauma related items (NONTRAU). This indicates that work related trauma problems (WORKTR) has a similar effect on respondents to non work related problems (NONTRAU).

Also apparent is the cumulative aspect of work trauma. The current study argues that additional work problems (WORKTR/NONTRAU) likely to be experienced by respondents, should occur in no more than 10% of the sample size (Peters-Bean 1993). In the METPOL survey, however, an overall 27% (N=36) reported work problems ranging from, `Has often applied=4' to `Has very often applied=5', indicating repetitive exposure to both work stress (WORKTR) and non work related trauma (NONTRAU).

Additional free text boxes were used in this questionnaire so that respondents could add other work related problems up to a maximum of 5. These were the WORKEX1 TO WORKEX5 variables and were coded as Group 0= `No comment added' and Group 1 = `Comment added'.

Table 19 Shows the percentages and frequencies of additional work related problems and are reported below:

**TABLE 19: Showing Percentages and Frequencies Of Additional Work Related Problems (WORKEX1 TO WORKEX5) In The METPOL Survey (N=134).**

	WORKEX1		WORKEX2		WORKEX3		WORKEX4		WORKEX5	
<b>Group 0</b>	11	8%	19	14%	35	26%	64	48%	79	59%
<b>Group 1</b>	123	92%	115	86%	99	74%	70	52%	55	41%

All Percentages Rounded Up.

KEY TO TABLE 19: (Group 0) = No additional work problem elicited; (Group 1) = Additional work problem added.

Group 1 data show that 41% (N=55) respondents could name further WORKEX stressors from one up to five - which were otherwise not included in the original 'work-related problems' in Table 17.

The WORKEX1 to WORKEX5 variables were also summed to provide a composite score, with a mean of 3.45, standard deviation of 1.63, a minimum value of 0 and a maximum value of 5. The internal consistency for these items =  $\alpha.83$  (Cronbach's alpha).

The case scenarios presented in Appendix "C" refer to the WORKEX1 to WORKEX5 variables where: Line 1, is the work problem encountered and the respondents number; Line 2 and subsequent lines (in brackets) details why the work problem was significant to the respondent.

These problems range from annual appraisal issues; lack of staff; lack of support from senior management (work stressors) and violence towards officers; sudden death etc. (traumata).

The last line, in capital letters, refers to the Impact Of Event Scale referent elicited in Appendix "B", page six, to be discussed later.

The Appendix "C", case scenarios for the WORKEX items reveal that:

- (a) Subjects could name further work stressors (in a cumulative sense).
- (b) Problems were perceived as being unique to the individual.

A further question asked the subjects to pick an item from the WORKEX variables and state why they considered it important or unique. Responses are reported in Appendix "C".

Also when asked: 'Are you still experiencing this problem?' Subjects reported, 'No = 0' (27 or 21%); 'Sometimes = 1' (46 or 35%) or 'Often = 2' (57 or 44%) with a mean score of 1.23; standard deviation of .77; a minimum range of 0 and a maximum range of 2. There were 4 missing cases for the WORKST variable.

The next question, 'When did this problem first occur?' (WORKOC) was used to determine the time period of the work problem as experienced. For the WORKOC variable, the respondents' (N=88) scores revealed a mean of 3.79 years; a standard deviation of 4.96 years; with the minimum range of 1 month and a maximum time frame of 28 years.

The maximum reported range of 28 years seems at variance with the foregoing question, which was linked to work problems that have been experienced, 'in the recent past' and may represent anomalous data for at least one individual. But, significantly, the METPOL group reported having experienced work problems for some 3 to 4 years at the time of the survey, which is taken to be a reasonable reflection of the time scale for experienced work problems.

#### **16.1.2. Domestic Problems.**

With regard to domestic problems, the variables DOM1 to DOM10 were summed to produce a composite score with a mean = 20.5; standard deviation = 6.2; minimum range = 10; and maximum score of 42 out of a possible 50.

The Cronbach's alpha for the summed DOM1 TO DOM10 variables is  $\alpha = .74$

Respondents were asked how often they experienced problems at home and the results are reported in Table 20 below.

Table 20 is coded as follows: '1=Has not applied'; '2=Has hardly ever applied'; '3=Has sometimes applied'; '4=Has often applied'; and '5=Has very often applied'.

Domestic stressors included demands made on their private lives, matters involving significant others and stress related incidents at work which had an effect outside of work. Again 20% (N=27) reported that these matters occurred 'often' and that these problems persist for 2-3 years.

The DOM1 TO DOM10 items were used to gather information about the likely stressors which the respondents brought with them to the workplace. Again these items were part of a study by Peters-Bean (1993), and reflect the types of problems that police reported to the Metropolitan Police Welfare Branch.

TABLE 20: Shows Percentage And Frequencies For Responses To Domestic-Related Problems In The METPOL Survey (N=134).

CATEGORY AND VALUES	1	2	3	4	5
Periods of general sickness which affected life outside work	56% (75)	26% (35)	13% (18)	2% (2)	3% (4)
An injury and/or accident which affected life outside work	54% (73)	22% (29)	18% (24)	3% (4)	3% (4)
A housing matter which affected life outside work	61% (82)	17% (23)	14% (18)	2% (3)	6% (8)
Alcohol and/or drug misuse which affected life outside work	92% (123)	5% (7)	1% (2)	1% (1)	1% (1)
A stress related incident which affected life outside work	34% (46)	23% (31)	30% (40)	6% (8)	7% (9)
Demands that work makes on my private/social life outside work	16% (21)	11% (15)	35% (47)	21% (29)	17% (22)
Absence of emotional support from others outside work	52% (70)	18% (24)	15% (20)	10% (14)	5% (6)
Matters involving my wife/partner which affected life outside work	39% (52)	18% (25)	22% (29)	12% (16)	9% (12)
Matters with family/relations which affected life outside work	36% (48)	26% (35)	21% (28)	9% (12)	8% (11)
Financial matters which affected life outside work	43% (57)	22% (29)	24% (33)	6% (9)	5% (6)

### 16.1.3. Impact Of Events.

A free text box was used in the IES battery so that respondents could respond to, 'Thinking about the recent past (at home or at work) write down any particular event which made which made a specific impact upon you'.

The IES referents were coded as '0=No trauma event'; '1=One trauma event'; '2=Two trauma events'; and '3=Three or more trauma events'. The IES variable was calculated with a mean of 1.32; a standard deviation of .81; a minimum range of 0; and a maximum range of 3.

Of the 134 respondents, 10% (N=14) reported no trauma event; 59% (N=78) reported one trauma event; 20% (N=27) reported two trauma events; and 11% (N=15) reported three or more trauma events. The percentages have been rounded up to the nearest decimal point.

Full details of the IES referents are recorded in Appendix "C" - in capital letters - and refer to one or more episodes of trauma involving: various personal experiences of sudden death within the family; illnesses and so on; or violent and unexpected sudden deaths which the officers have encountered or investigated as part of their duty.

With regard to the IEST variable, further questions were put concerning, 'Are you still experiencing this problem?'. Subjects reported, 'No=0' (56 or 44%); 'Sometimes=1' (45 or 36%) or 'Often=2' (25 or 20%); mean = .74; standard deviation = .76; minimum range = 0; and maximum range = 2. There were 8 missing cases.

This highlights that the impact of the event appeared to be of significant magnitude for some 20% of the police and civil staff METPOL group, whilst 36% of the group experienced the problem only 'sometimes'.

The next variable (IESOC) asked the question, 'When did this problem first occur?' and was used to determine the time period of the event as experienced. For the subjects (N=82), the minimum range was 1 month and the maximum range was 20 years; with a mean of 2.61 years; standard deviation = 3.89 years.

### 16.1.4. Intrusion And Avoidance.

The variables INTRUDE1 to AVEX8, in accordance with Horowitz et al. (1979), were recoded as (0=0) (1=1) (2=3) (3=5) and were used to determine the reliability scores (Cronbach's alpha); means; standard deviations; minimum and maximum ranges as follows:

Frequency of intrusion (INTRUDE1 TO INTRUDE7)  $\alpha=.88$ ; with a mean of 13.02; a standard deviation of 9.10; a minimum range of 0 and a maximum range of 33 out of a possible 35. Intensity of intrusion (INTEX1 TO INTEX7)  $\alpha=.89$ ; with a mean of 11.66; a standard deviation of 9.13; a minimum range of 0 and a maximum range of 35. Frequency of avoidance (AVOID1 TO AVOID8)  $\alpha=.79$ ; with a mean of 9.94; a standard deviation of 8.19; a minimum range of 0 and a maximum score of 36 out of a possible 40. Intensity of avoidance (AVEX1 TO AVEX8)  $\alpha=.82$ ; with a mean of 8.48; a standard deviation of 7.92; a minimum range of 0 and a maximum score of 38 out of a possible 40.

These variables are then used to provide information on the intercorrelations of the above items and were summed as follows:

INTRUDE1 TO INTRUDE7 (INTRUDE); INTEX1 to INTEX7 (INTEX); AVOID1 to AVOID8 (AVOID); and AVEX1 to AVEX8 (AVEX).

Table 21 shows the intercorrelations for the variables INTRUDE; INTEX; AVOID; and AVEX:

**TABLE 21: Showing Reported Intercorrelations For The Impact Of Events Scale Variables In The METPOL Survey (N=134).**

	INTRUDE	INTEX	AVOID
INTEX	.8741**		
AVOID	.5669**	.5306**	
AVEX	.6186**	.6378**	.8837**

N of cases: 134 2-tailed Signif: \* - .01 \*\* - .001

KEY TO TABLE 21: (INTRUDE)= Frequency of intrusion scores; (INTEX)= Intensity of intrusion scores; (AVOID)= Frequency of avoidance scores; (AVEX)= Intensity of avoidance scores.

The above items were also analysed to determine whether there are 'threshold' scores available for respondents who report frequency and intensity of both avoidance and intrusion. This involved using a similar procedure described in the Interview Survey for the GHQLIK, GHQSTAN and GHQTHRESH variables.

The rationale for conducting analyses of thresholds of intrusion and avoidance for the INTRUDE1 TO AVEX8 variables is to demonstrate which officers fall below a threshold and who perhaps exhibit normal responses to intrusion and avoidance items. Conversely, colleagues who exhibit high intrusion and avoidance will record above threshold scores.

The variables are analysed and reported as separate groups first, then subjected to analysis as a whole.

#### **16.1.5. Thresholds Of Intrusion And Avoidance.**

The 'threshold' scores reported below were calculated by showing the group distributions for the 7 items of frequency of intrusion (INTRUDE1 TO INTRUDE7); 7 items of intensity of intrusion (INTEX1 TO INTEX7); 8 items of frequency of avoidance (AVOID1 TO AVOID8); and 8 items of intensity of avoidance (AVEX1 TO AVEX8) using a Likert type scale - where '0=Does not apply'; '1=Rarely applies'; '3=Sometimes applies'; and '5=Often applies'.

The sum of the 7 item variables have a maximum score of 35, and for the 8 item variables, a maximum score of 40.

INTRUDE1 TO INTRUDE7 items can then be subjected to a 'standard' scoring method (INTSTAN) where 'Does not apply'/'Rarely applies'=0; and 'Sometimes applies'/'Often applies'=1. The sum of the endorsements for this variable have a minimum score of 0 and a maximum score of 7.



This scoring method is used primarily to highlight 'caseness' - where it is hypothesised in the METPOL survey, that some respondents will endorse items perceived to have more frequency of intrusion (INTSTAN) than their colleagues.

The standard scores are then used to separate the respondents into groups of above and below threshold scores for frequency of intrusion (INTHRESH). The INTHRESH variables are reported for 3 or more items endorsed, using the recode statement '0 THRU 3=0' and '4 THRU 7=1' and so on - within the SPSSPC+ command format.

The rationale for reporting 3 or more items is an arbitrary one. But the individual item banks were analysed to support the notion that (a) there would be more reports of intrusive images and thoughts among the sample of police officers - since intrusion is intense, but short lived (see Horowitz et al. 1979 and Hetherington 1993) and (b) that there would be fewer reports of avoidant behaviour among the sample of police officers - since it is likely that avoidance is being used as a mechanism of defence (Bloch 1991). Thereafter the total variables for frequency of intrusion and avoidance were calculated and reported using the procedure based on Neal et al. (1994).

In the METPOL survey, a decision was made to test the mean scale psychometric properties of the individual item banks for frequency of intrusion (INTRUDE); intensity of intrusion (INTEX); frequency of avoidance (AVOID) and intensity of avoidance (AVEX) first, before making comparisons with the normative scores reported in Neal et al. (1994).

Table 22 below shows the means, standard deviations, minimum and maximum ranges for the Likert type scoring (INTLIK); the standard scoring method (INTSTAN); and the threshold scoring method (INTHRESH).

**TABLE 22: Showing Group Distributions For INTLIK, INTSTAN And INTHRESH For Frequency Of Intrusion Variables In The METPOL Survey (N=134).**

VALUE	MEAN	STDEV	MIN.	MAX.
INTLIK	13.02	9.10	0	33
INTSTAN	3.10	2.21	0	7
INTHRESH	.46	.50	0	1

All Figures Rounded Up To Nearest Decimal Point.

KEY TO TABLE 22: (INTLIK)= Frequency of intrusion items Likert scoring; (INTSTAN)= Frequency of intrusion items standard scoring; (INTHRESH)= Frequency of intrusion items threshold scoring; (MEAN)= Arithmetic average; (STDEV)= Standard deviation away from the mean; (MIN.)= Minimum value in that range; (MAX.)= Maximum value in that range.

Thereafter, the INTRESH method can be used to calculate the threshold scores for respondents - i.e. the more items endorsed in the higher range ('Sometimes applies' and 'Often applies' = 1), the more likely that respondents would exhibit significant levels of frequency of intrusive images and thoughts.

Table 23, below shows the threshold scores for INTRESH variables for 3 to 6 items endorsed on the IES frequency of intrusion Questionnaire:

**TABLE 23: Showing Reported Frequency And Percentage Of Subjects Who Score At Or Above The Indicated INTRESH Level For Frequency Of Intrusion Variables In The METPOL Survey (N=134).**

	TOTAL INTRESH SCORES FOR 3 TO 6 ITEMS							
LEVEL	3		4		5		6	
GROUP	%	F	%	F	%	F	%	F
0	54	72	69	92	85	114	93	125
1	46	62	31	42	15	20	7	9

All Percentages Rounded Up.

KEY TO TABLE 23: (LEVEL)= Threshold cut off points for 3 up to 6 items; (%)= Percentage of respondents; (F)= Frequency of respondents; (0)= Group membership below threshold score; (1)= Group membership above threshold score.

The above table indicates that 46% (N=62) of respondents reported at least 3 symptoms of intrusive images or thoughts associated with the impact of a traumatic event. Where frequency of intrusion is thought to be cumulative, the above table shows that the more items endorsed, the fewer the respondents (7% or N=9).

Using the above scoring procedures, the following tables report the Likert (EXLIK); standard scoring (EXSTAN) and threshold scoring (EXTHRESH) for the intensity of intrusion (INTEX1 TO INTEX7) variables.

Also shown below are the Likert, standard and threshold scoring for frequency of avoidance (AVLIK, AVSTAN, AVTHRESH); and intensity of avoidance (AXLIK, AXSTAN, AXTHRESH).

Distribution tables of the frequencies and percentages of respondents who score at or above the indicated threshold level for intensity of intrusion (EXTHRESH); frequency of avoidance (AVTHRESH); and intensity of avoidance (AXTHRESH) are also reported below:

**TABLE 24: Showing Group Distributions For EXLIK, EXSTAN and EXTHRESH For Intensity Of Intrusion Variables In The METPOL Survey (N=134).**

VALUE	MEAN	STDEV	MIN.	MAX.
EXLIK	11.66	9.12	0	35
EXSTAN	2.66	2.32	0	7
EXTHRESH	.39	.49	0	1

All Figures Rounded Up.

KEY TO TABLE 24: (EXLIK)= Intensity of intrusion items Likert scoring; (EXSTAN)= Intensity of intrusion items standard scoring; (EXTHRESH)= Intensity of intrusion items threshold scoring; (MEAN)= Arithmetic average; (STDEV)= Standard deviation away from the mean; (MIN.)= Minimum value in that range; (MAX.)= Maximum value in that range.

**TABLE 25: Showing Reported Frequency And Percentage Of Subjects Who Score At Or Above The Indicated EXTHRESH Level For Intensity Of Intrusion Variables In The METPOL Survey (N=134).**

LEVEL	TOTAL EXTHRESH SCORES FOR 3 TO 6 ITEMS							
	3		4		5		6	
GROUP	%	F	%	F	%	F	%	F
0	61	82	71	95	88	118	94	126
1	39	52	29	39	12	16	6	8

All Percentages Rounded Up.

KEY TO TABLE 25: (LEVEL)= Threshold cut off points for 3 up to 6 items; (%)= Percentage of respondents; (F)= Frequency of respondents; (0)= Group membership below threshold score; (1)= Group membership above threshold score.

Thus, it can be seen that 39% (N=52) of the respondents scored three or more for the intensity of intrusion items, whilst 6% (N=8) scored 6 or more for the same items. The scores for frequency and intensity of intrusive thoughts and images is high and reflect possible indices of trauma which is intensely felt, but short lived.

**TABLE 26: Showing Group Distributions For AVLIK, AVSTAN And AVTHRESH For Frequency Of Avoidance Variables In The METPOL Survey (N=134).**

VALUE	MEAN	STDEV	MIN.	MAX.
AVLIK	9.94	8.19	0	36
AVSTAN	2.28	2.05	0	8
AVTHRESH	.28	.45	0	1

All Figures Rounded Up.

KEY TO TABLE 26: (AVLIK)= Frequency of avoidance items Likert scoring; (AVSTAN)= Frequency of avoidance items standard scoring; (AVTHRESH)= Frequency of avoidance items threshold scoring; (MEAN)= Arithmetic average; (STDEV)= Standard deviation away from the mean; (MIN.)= Minimum value in that range; (MAX.)= Maximum value in that range.

**TABLE 27: Showing Reported Frequency And Percentage Of Subjects Who Score At Or Above The Indicated AVTHRESH Level For Frequency Of Avoidance Variables In The METPOL Survey (N=134).**

LEVEL	TOTAL AVTHRESH SCORES FOR 3 TO 7 ITEMS									
	3		4		5		6		7	
GROUP	%	F	%	F	%	F	%	F	%	F
0	72	96	81	109	94	126	97	130	98	132
1	28	38	19	25	6	8	3	4	2	2

All Percentages Rounded Up.

KEY TO TABLE 27: (LEVEL)= Threshold cut off points for 3 up to 7 items; (%)= Percentage of respondents; (F)= Frequency of respondents; (0)= Group membership below threshold score; (1)= Group membership above threshold score.

Thus 28% (N=38) of police officers reported 3 or more items of frequency of avoidance, confirming the idea that avoidant behaviour may be the subject of resolution at a later stage as an adaptive mechanism for reducing emotional and ideational processing (Horowitz 1993; Lazarus 1983).

**TABLE 28: Showing Group Distributions For AXLIK, AXSTAN And AXTHRESH For Intensity Of Avoidance Variables In The METPOL Survey (N=134).**

VALUE	MEAN	STDEV	MIN.	MAX.
AXLIK	8.48	7.92	0	38
AXSTAN	1.90	2.08	0	8
AXTHRESH	.19	.40	0	1

All Figures Rounded Up.

KEY TO TABLE 28: (AXLIK)= Intensity of avoidance items Likert scoring; (AXSTAN)= Intensity of avoidance items standard scoring; (AXTHRESH)= Intensity of avoidance items threshold scoring; (MEAN)= Arithmetic average; (STDEV)= Standard deviation away from the mean; (MIN.)= Minimum value in that range; (MAX.)= Maximum value in that range.

**TABLE 29: Showing Reported Frequency And Percentage Of Subjects Who Score At Or Above The Indicated AXTHRESH Level For Intensity Of Avoidance Variables In The METPOL Survey (N=134).**

LEVEL	TOTAL AXTHRESH SCORES FOR 3 TO 7 ITEMS									
	3		4		5		6		7	
GROUP	%	F	%	F	%	F	%	F	%	F
0	81	108	86	115	91	122	97	130	98	132
1	19	26	14	19	9	12	3	4	2	2

All Percentages Rounded Up.

KEY TO TABLE 29: (LEVEL)= Threshold cut off points for 3 up to 7 items; (%)= Percentage of respondents; (F)= Frequency of respondents; (0)= Group membership below threshold score; (1)= Group membership above threshold score.

Again, it can be seen that the intensity of avoidance for 3 or more items was confined to a small number of police officers (19% or N=26). This further reflects the hypothesis in the current study that avoidance or denial is an adaptive consequence of trauma (see Janoff-Bulman and Timko 1987 for discussion).

**16.1.6. Frequency Of Intrusion And Avoidance.**

The following procedure totalled individual scores within the variables, INTRUDE1 TO INTRUDE7 and AVOID1 TO AVOID8 (15 items for both frequency of intrusion and avoidance variables) where `0=Does not apply'; `1=Rarely applies'; `2=Sometimes applies'; and `3=Often applies'. However, these were recoded as (0=0) (1=1) (2=3) (3=5) to conform to the scalar points used by Horowitz et al. (1979) and the analyses by Neal et al. (1994).

A composite score (IESLIK), using the Likert type scale, was calculated with a mean of 22.96; standard deviation of 15.31; a minimum range of 0; and a maximum score of 64 out of a possible 75 (i.e. 5 times 15 items).

A composite score was also calculated using the standard scoring method (IESTAN), where `0,1=0' and `3,5=1' with a mean of 27.27; a standard deviation of 17.12; a minimum range of 0; and a maximum score of 66 out of a possible 75.

Thereafter threshold scores (IESTHRESH) are calculated on the basis of endorsement of all frequency of intrusion and avoidance items within the 15 variables, with a mean of .40; standard deviation of .49; a minimum value of 0; and a maximum score of 1.

The IESTHRESH scores are reported in Table 30 below, adopting the procedure suggested by Neal et al. (1994):

**TABLE 30: Showing Reported Frequency And Percentage Of Subjects Who Score At Or Above The Indicated IESTHRESH Level For Intensity Of Intrusion And Avoidance Variables In The METPOL Survey (N=134).**

		TOTAL IESTHRESH SCORES FOR 34 TO 38 ITEMS									
LEVEL	34		35		36		37		38		
GROUP	%	F	%	F	%	F	%	F	%	F	
0	60	81	63	84	65	87	66	89	70	94	
1	40	53	37	50	35	47	34	45	30	40	

All Percentages Rounded Up.

KEY TO TABLE 30: (LEVEL)= Threshold cut off points for 34 up to 38 items; (%)= Percentage of respondents; (F)= Frequency of respondents; (0)= Group membership below threshold score; (1)= Group membership above threshold score.

Of note here is that some 40% (N=53) of subjects report above threshold scores of 34 for frequency of intrusion and avoidance. Also, 30% (N=40) of the sample reached a threshold of 38 or more for frequency of intrusion and avoidance, which provides evidence that intrusion/avoidance has perhaps a cumulative impact on a significant number of the respondents.

Neal et al. (1994) point out that there is a limitation on the availability of normative scores for the IES variables, but report that recent work has identified the utility of similar IESTHRESH scores as a dichotomous indicator of PTSD. Further discussion of PTSD variables are included below.

#### 16.1.7. PTSD Variables.

The PTSD variables (PTSD1 TO PTSD17) show similar findings for intrusion and avoidance, but also incorporate symptoms of hyperarousal.

The internal reliability (Cronbach's alpha) scores, in comparison with IES scales, are shown for PTSD1 TO PTSD4 (intrusion)  $\alpha=.79$  (IES Intrusion,  $\alpha=.89$ ); PTSD5 TO PTSD11 avoidance  $\alpha=.85$  (IES Avoidance,  $\alpha=.89$ ); and PTSD12 TO PTSD17 (hyperarousal)  $\alpha=.86$ .

The internal reliability scores for the composite variable (PTSDLIK) - i.e. the sum of the scores of PTSD1 to PTSD17 - is  $\alpha=.93$ , with a mean of 33.77; a standard deviation of 17.18; a minimum range of 17; and a maximum score of 103 out of a possible 119. The results are based on the Likert scale of '1=None' to '7=Extremely severe'. There were 5 missing cases for the PTSDLIK variable.

A composite variable (PTSDSTAN) using the standard scoring was calculated where, '1,2,3=0' and '4,5,6,7=1', with a mean of .36; a standard deviation of .48; a minimum value of 0 and a maximum value of 17.

The threshold scores PTSDTHRESH were then calculated using the SPSSPC+ command procedure (0 THRU 3=0) (4 THRU 17=1) and the cut-off points reported for 3 items endorsed up to 8 items of PTSD.

The rationale for using the threshold score of 3 to 8 is based on the notion that more than 3 items (or symptoms) of PTSD can be used to highlight 'caseness' in individuals. The more items endorsed, the likelihood that PTSD has an impact on the individual respondents.

Where more than 8 items are endorsed the respondents could be said to be developing symptoms of post traumatic stress disorder. However, the PTSDTHRESH calculations revealed no other useful information for items 9 to 17 (i.e. in each case only 4% (N=5) of the respondents endorsed more than 9 items).

Secondly, the PTSDTHRESH procedure was used to test the psychometric properties of the PTSD1 to PTSD17 variables - using the Likert scale suggested by Overall and Goreham (1962) - as against the more usual diagnosis of PTSD, obtained through clinical interviews.

The PTSDTHRESH scores are reproduced below as Table 31, indicating that some 35% (N=47) of the respondents had endorsed 3 or more items of PTSD, but only 11% (N=15) endorsed 8 or more items:

**TABLE 31: Showing Reported Frequency And Percentage Of Subjects Who Score At Or Above The Indicated PTSDTHRESH Level For The Post Traumatic Stress Disorder Items In The METPOL Survey (N=134).**

LEVEL	TOTAL PTSDTHRESH SCORES FOR 3 TO 8 ITEMS											
	3		4		5		6		7		8	
GROUP	%	F	%	F	%	F	%	F	%	F	%	F
0	61	82	66	88	72	97	77	103	80	107	85	114
1	35	47	30	41	24	32	19	26	16	22	11	15
MISSING	4	5	4	5	4	5	4	5	4	5	4	5

KEY TO TABLE 31: (LEVEL)= Threshold cut off points for 34 up to 38 items; (%)= Percentage of respondents; (F)= Frequency of respondents; (0)= Group membership below threshold score; (1)= Group membership above threshold score.

Thus 35% (N=47) of the respondents report 3 or more items of PTSD, which perhaps indicates that the original PTSD diagnosis (DSM-IIIR 1987) is consequent on the presence of a cluster of symptoms associated with one event of overwhelming magnitude. However, a later version of PTSD symptomatology (DSM-IV 1994) acknowledges that the items reflecting intrusion and avoidance may be related to 'adjustment disorders' rather than the presence of a traumatic experience.

#### 16.1.8. Relationships Between IES And PTSD.

A further comparison was made between IES scores of frequency of intrusion and avoidance and PTSD intrusion and avoidance scores using correlational techniques. All results are based on 134 cases.

The rationale for this method is to compare, where possible, the well-validated Impact Of Event Scale items with the emerging psychometric measure PTSD intrusion and avoidance, as presented in the METPOL survey. In effect, the reported research was trying to establish whether PTSD symptom clusters triggered 'Impact Of Event' like problems (as a possible indicator of PTSD).

The individual item banks for IES/PTSD intrusion and IES/PTSD avoidance were calculated first. Then these items were calculated as composite variables (i.e. IES intrusion and avoidance, followed by PTSD intrusion and avoidance) and then correlated with each other as follows:

The 7 IES items for frequency of intrusion (INTOT), were calculated where, '0=Does not apply'; '1=Rarely applies'; '3=Sometimes applies'; and '5=Often applies' with a mean of 13.02; a standard deviation of 9.10; a minimum range of 0; and a maximum score of 33 out of a possible 35.



The 4 PTSD items for intrusion (PINT) were calculated where '1=Not present' to '7=Extremely severe' with a mean of 7.45; a standard deviation of 4.18; a minimum range of 4 and a maximum score of 23 out of a possible 28.

The composite variable for frequency of intrusion (INTOT) was correlated with the composite PTSD intrusion variable (PINT) and was found to be significant ( $r=.63$ ) at the  $p < .001$  level (2-tailed).

With regard to the items measuring avoidance of stimuli associated with trauma, the 8 IES items for frequency of avoidance (AVTOT) were also calculated where '0=Does not apply' to '5=Often applies' with a mean of 9.25; a standard deviation of 8.19; a minimum score of 0; and a maximum score of 36 out of a possible 40.

The 7 PTSD items for avoidance (PAVOID) were calculated on a scale of '1=Not present' to '7=Extremely severe', with a mean of 13.72; a standard deviation of 7.5; a minimum range of 7; and a maximum score of 44 out of a possible 49.

The composite variable for frequency of avoidance (AVTOT) was then correlated with the PTSD avoidance variable (PAVOID) and was significant ( $r=.61$ ) at the  $p < .001$  level (2-tailed).

All 15 IES scores for frequency of intrusion and avoidance (IESALL), based on the Likert scales above, were calculated and show a mean of 22.96; a standard deviation of 15.31; a minimum range of 0; and a maximum score of 64 out of a possible 75.

The 11 PTSD scores for intrusion and avoidance (PTSDALL) were calculated, using the above Likert scale, with a mean of 21.18; a standard deviation of 10.88; a minimum range of 11; and a maximum score of 67 out of a possible 77.

The composite variable IESALL was then correlated with PTSDALL (to establish the concurrent validity) and was significant ( $r=.70$ ) at the  $p < .001$  level (2-tailed).

#### **16.1.9. Primary And Secondary Appraisal.**

The 8 item bank for primary appraisal (PRIME1 to PRIME8; Cronbach's  $\alpha = .92$ ) and 6 item bank for secondary appraisal (SECOND1 to SECOND6; Cronbach's  $\alpha = .74$ ) were next taken into consideration.

Table 32 below shows the reported correlations for the PRIME1 to PRIME8 variables with SECOND1 to SECOND6. The correlation coefficients range from  $r=.20$  at the  $p < .01$  level to  $r=.53$  at the  $p < .001$  level.

In the METPOL survey, the researcher was particularly interested in the relationship between primary appraisal with SECOND5 'One where work bureaucracy made it difficult to deal with' and SECOND6 'One where, if I dealt with it in the way I wanted, it would have made things difficult for me'. These two items were added by Dewe (1991b) and it was argued in the METPOL research, that they reflected organisational interference with marshalling an individual's resources to cope - which is the bedrock of secondary appraisal mechanisms.

Of note is the correlations between SECOND5 ('one where work bureaucracy made it difficult to deal with') and PRIME3 (r=.38) 'That I would appear to be incompetent'; PRIME4 (r=.28) 'That my self esteem would appear to be threatened'; PRIME7 (r=.33) 'That I would appear to be difficult to get along with'; and PRIME8 (r=.29) 'That I would appear to be in the wrong'; all of which are significant at the  $p < .001$  level.

These items, it is suggested, alter the coping process for police officers in specific ways, i.e. by constricting the range of options available to the officer to deal with trauma.

Similarly, SECOND6 ('One where, if I had dealt with it in the way I wanted, it would have made things difficult for me') show medium correlations between  $r=.40$  and  $r=.50$  for all the primary appraisal variables. In other words, officers are confined to adhering to notional rules governing their work behaviour and a breach of those rules (explicit or implied) might lead to difficulties in coping.

**TABLE 32: Showing Reported Correlations For The PRIME1 TO PRIME8 WITH SECOND1 TO SECOND6 Variables In The METPOL Survey (N=134).**

	SECOND1	SECOND2	SECOND3	SECOND4	SECOND5	SECOND6
PRIME1	.2095*	.1794	.2689*	.3979**	.2114*	.4658**
PRIME2	.3044**	.1581	.3862**	.4679**	.2500*	.5071**
PRIME3	.3055**	.1204	.3707**	.4008**	.3863**	.4946**
PRIME4	.2807**	.1495	.3743**	.3869**	.2887**	.5363**
PRIME5	.2918**	.1785	.3325**	.3481**	.1848	.4333**
PRIME6	.1270	.1339	.3653**	.3959**	.2481*	.4092**
PRIME7	.1044	.1443	.4038**	.4175**	.3310**	.4071**
PRIME8	.2608*	.1080	.2875**	.2526*	.2901**	.4135**

N of cases: 126 2-tailed Signif: \* - .01 \*\* - .001

KEY TO TABLE 32: PRIME1='Not achieving important goals'; PRIME2='Losing respect of someone important'; PRIME3='Appearing to be incompetent'; PRIME4='Self esteem threatened'; PRIME5='Feeling embarrassed'; PRIME6='Appearing to be unsupportive'; PRIME7='Appearing to be difficult'; PRIME8='Appearing to be in the wrong'; SECOND1='One that I could change or do something about'; SECOND2='One that I must accept or that I just got used to'; SECOND3='One where I needed to know more information before I could act'; SECOND4='One where I needed to hold myself back from doing what I wanted'; SECOND5='One where work bureaucracy made it difficult to deal with'; SECOND6='One where, if I had dealt with it in the way I wanted, it would have made things difficult for me'.

For simplicity in reproducing the numbered choice variable SECEX, the following reproduced table also shows a comparison between the METPOL survey and the MAIN U.K. Forces survey for this variable. SECEX was an additional item included in the questionnaires to test whether a choice of secondary appraisal resources had any influence on coping. In other words, did the police organisation and culture inhibit a useful coping process?

TABLE 33: Showing Reported Distributions For SECEX Variable For The METPOL (N=134) And The Main U.K. Forces Survey (N=528) RANKED According To Highest Frequency For Both Groups.

SECEX VARIABLE	METPOL		MAIN U.K.		RANK
	F	%	F	%	
One that I could change or do something about	20	15	50	9	4
One that I must accept or that I just got used to	42	31	194	37	1
One where I needed to know more information before I could act	15	12	68	13	3
One where I needed to hold myself back from doing what I wanted	10	7	50	9	5
One where work bureaucracy made it difficult to deal with	20	15	94	18	2
One where, if I dealt with it in the way I wanted, it would have made things difficult for me	16	12	35	7	6
MISSING DATA	11	8	37	7	7
TOTALS	134	100	528	100	

All Percentages Rounded Up.

KEY TO TABLE 33: (F)= Frequency of occurrence; (%)= Percentage of occurrence; (METPOL)= Metropolitan Police survey; (MAIN U.K.)= Main U.K. Forces survey.

NOTE TO TABLE 33: The ranks are obtained by measuring the frequency of occurrence for both the METPOL and MAIN U.K. scores across individual items. This was to provide general information on which secondary appraisal item (SECEX choice) was important for the respondents in both surveys.

Table 33 indicates that, for police populations at least, there is underlying tension in the way that secondary appraisal processes influence 'coping, resources and options (that are) evaluated' (Dewe 1991b). The highest frequency scores, indicating the item most endorsed for respondents, tests the question, 'Would you write down the number which best describes how the incident affected you personally' in the METPOL questionnaire.

So for Rank 1, 'One that I must accept or that I just got used to'; Rank 2, 'One where work bureaucracy made it difficult to deal with and Rank 3, 'One where I needed to know more information before I could act' point to the notion that organisational culture might have influence on subsequent coping and may possibly interfere with the secondary appraisal strategy.

**16.1.10. General Mental Well-Being.**

These measures used the GHQ1 TO GHQ12 variables assessing context free mental health (Goldberg 1972) and 6 items of neuroticism (N1 TO N6) suggested by Eysenck and Eysenck (1964). The internal reliability for these items are GHQ1 TO GHQ12 (Cronbach's  $\alpha = .89$ ) and N1 TO N6 (reflecting negative affectivity) is Cronbach's  $\alpha = .68$ .

The composite score for GHQ1 to GHQ12 (GHQLIK) was recoded as '0 = Not at all; 1 = Same as usual; 2 = Less than usual; and 3 = Much less than usual'.

Following the procedure outlined in the Interview survey above, the composite Likert type score (GHQLIK); standard score (GHQSTAN) and threshold scores (GHQTHRESH) were calculated and reproduced in Table 34 below:

**TABLE 34: Showing Group Distributions For Likert-type, Standard And Threshold Scores For GHQ Variables In The Metropolitan Police Survey (N=134).**

VALUE	MEAN	STDEV	MIN.	MAX.
GHQLIK	11.80	5.72	2	31
GHQSTAN	2.45	3.14	0	12
GHQTHRESH	.37	.49	0	1

Thereafter threshold scores were computed and are reproduced below as Table 35. Again, following the procedure outlined in the Interview survey, the cut-off points are set at 3 to 11 items of the GHQ questionnaire:

TABLE 35: Showing Reported Percentage And Frequency Of Subjects Who Score At Or Above The Indicated GHQ Threshold Scores In The METPOL Survey (N=134).

		TOTAL GHQ SCORES FOR 3 TO 11 ITEMS.																	
		3		4		5		6		7		8		9		10		11	
GROUP		%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F
0		69	93	76	102	79	106	87	116	92	123	95	127	95	128	98	131	98	132
1		31	41	24	32	21	28	13	18	8	11	5	7	5	6	2	3	2	2

KEY TO TABLE 37: (GHQLIK)= GHQ Likert Scoring; (GHQSTAN)= GHQ standard scoring; (0)= Group membership below threshold score; (1)= Group membership above threshold score.

For the METPOL study some 31% (N=41) of the respondents endorsed 3 or more items out of the 12 for context free mental health.

The sum of the GHQ items (GHQTOT) with a mean of 11.80; a standard deviation of 5.72 and a minimum range of 2; and a maximum score of 31 out of a possible 36.

The N1 to N6 ( $\alpha=.68$ ) items were coded on a Likert type scale ranging from, '1=Almost never' to '4=Almost always' and calculated as a composite score (NAFFLIK), with a mean of 11.36; a standard deviation of 3.18; a minimum range of 6; and a maximum score of 19 out of a possible 24.

Using the standard scoring procedure, the N1 to N6 variables were recoded as, '1,2=0' and '3,4=1' (NASTAN). This procedure divides the respondents scores into two groups, to test for caseness where, 'Almost never/Quite seldom' scores fall below a level of neuroticism; and 'Quite often/Almost always' indicate levels of negative affectivity. The NASTAN variables show a mean of 1.64; a standard deviation of 1.45; a minimum range of 0; and a maximum range of 6.

The threshold scores for the N1 to N6 variables were then calculated as NATHRESH variables, where the sum of the scores were recoded as, (0 THRU 2=0) and (3 THRU 6=1), with a mean of .27; a standard deviation of .44; a minimum score of 0; and a maximum score of 1.

NATHRESH cut-off points were then calculated for two groups for items ranging from 2 to 4 points. Group 0 members fell below the threshold for these items and Group 1 members reached a score equal to or above the threshold. These threshold scores are used to indicate whether respondents within Group 1 can be said to have a tendency towards neuroticism or negative affectivity, i.e. the higher the endorsement of NATHRESH items, the more likely that the subjects exhibit negative affectivity.

Using a cut-off score of 2 as the base predictor of negative affectivity, Group 0 = 72% (N=97) and Group 1 = 28% (N=37); for 3 or more items, Group 0 = 88% (N=118) and Group 1 = 12% (N=16); and for 4 or more items of negative affectivity, Group 0 = 96% (N=129) and Group 1 = 4% (N=5).

The GHQTOT variables, for N=134 cases, correlated reasonably well with the NAFFLIK variables at  $r=.56$  (2-tailed,  $p < .001$  level).

#### **16.1.11. Relationships Between The IES, PTSD, GHQ and NAFF Variables.**

From the information the METPOL survey has produced so far, the research has provided composite scores for the following:

For the 7 items of frequency of intrusion and 8 items of frequency of avoidance, the 15 item variable IESALL was recoded as (0=0, 1=1, 2=3, 3=5), with a mean of 22.96; standard deviation 15.31; minimum range = 0; and maximum score of 64 out of 75.

The 4 items of PTSD intrusion and 7 items of PTSD avoidance were combined as an 11 item variable PTSDALL, with a mean of 21.28; standard deviation of 10.88; a minimum range of 11; and a maximum score of 67 out of 77.

A composite score was obtained by summing the recoded GHQ1 to GHQ12 items, where, `1=0, 2=1, 3=2, and 4=3. The procedure, described above, produced the variable GHQALL with a mean of 11.80; standard deviation of 5.72; a minimum range of 2; and a maximum score of 31 out of 36

Lastly a composite neuroticism score for the N1 to N6 items (NAFF), was calculated with a mean of 11.36; standard deviation of 3.18; a minimum range of 6 and a maximum score of 19 out of 24.

These four composite variables were then correlated with each other and are shown in Table 36 below:

**TABLE 36: Showing The Intercorrelations Between IESALL, PTSDALL, GHQALL And NAFF In The METPOL Survey (N=134).**

	IESALL	PTSDALL	GHQALL
PTSDALL	.6966**		
GHQALL	.5039**	.5138**	
NAFF	.4492**	.4890**	.5749**

N of cases: 129 2-tailed Signif: \* - .01 \*\* - .001

The highest correlation PTSDALL/IESALL is correlated at  $r=.69$ ; whilst the lowest correlation is NAFF/IESALL at  $r=.44$ . All correlations are significant at the  $p < .001$  level.

#### 16.1.12. Cybernetic Coping Scale.

Edwards and Baglioni (1993) discuss the 40 item Cybernetic Coping Scale (CCS) in relation to stress, as a discrepancy between an individual's perceived state and desired state. The presence of this discrepancy must be seen as important to the individual.

Five forms of coping are reported as attempts to bring the situation into conjunction with desires (changing situation), adjust desires to meet the situation (accommodation), reduce the importance associated with the discrepancy (devaluation), improve well-being directly (symptom reduction), and direct attention away from the situation (avoidance).

The METPOL study used a revised version of the 40 item CCS variables proposed, based on those variables which had the highest factor loadings reported by the authors. This produced a 20 item CCS.

A further 4 items from the Ways Of Coping Checklist (WCCL; Aldwin et al. 1980) were added to reflect the highest factor loadings for, 'seeking social support' and were also included (CCS1 TO CCS24).

The CCS1 TO CCS24 (CCS) items were scored as, `1=I do not use this technique' to 5=I always use this technique' and show high internal reliability (Cronbach's  $\alpha = .89$ ), with a mean of 62.38; a standard deviation of 13.75; a minimum value of 24 and a maximum score of 107 out of 120. These 24 items were presented at random within the item bank to reduce order effects.

Following the analysis procedure suggested by Edwards and Baglioni (1993) the above six forms of coping were computed as follows: CHANGE (CCS1,7,13,19); ACCOM (CCS2,8,14,20); DEVAL (CCS3,9,15,21); AVOID (CCS4,10,16,22); REDUCE (CCS5,11,17,23); and SUPPORT (CCS6,12,18,24).

The individual variables were summed and the measure of internal consistency (Cronbach's  $\alpha$ ), means, and standard deviations reported for each in Table 37 below:

**TABLE 37: Showing The Means, Standard Deviations and Reliability Scores (Cronbach's  $\alpha$ ) For The Revised Cybernetic Coping Scale (Six Forms Of Coping) In The METPOL Survey (N=134).**

VARIABLES	METPOL SURVEY		
	M	SD	$\alpha$
CHANGE	11.72	3.06	.728
ACCOM	9.82	2.73	.676
DEVAL	9.08	3.69	.871
AVOID	8.27	3.38	.780
REDUCE	11.84	3.59	.790
SUPPORT	11.79	3.81	.849

All Figures Rounded Up To Nearest Decimal Place.

KEY TO TABLE 37: (METPOL)= Metropolitan Police Survey; (M)= Means; (SD)= Standard deviation away from the mean; ( $\alpha$ )= Cronbach's alpha coefficient; (CHANGE)= 'changing the situation'; (ACCOM)= 'adjusting desires to meet the situation'; (DEVAL)= 'reduce the importance associated with the discrepancy'; (AVOID)= 'direct attention away from the situation'; (REDUCE)= 'improve well-being directly'; (SUPPORT)= 'seeking social support'.

Table 38 below shows the intercorrelations between the six forms of coping. There are five missing cases:

**TABLE 38: Showing The Reported Intercorrelations Between The Six Forms Of Coping In The METPOL Survey (N=134).**

	CHANGE	ACCOM	DEVAL	AVOID	REDUCE
ACCOM	.3252**				
DEVAL	.2338*	.5361**			
AVOID	.1961	.2838**	.2600*		
REDUCE	.3647**	.3664**	.3913**	.1424	
SUPPORT	.4335**	.2928**	.2152*	.0635	.4898**

N of cases: 129 2-tailed Signif: \* - .01 \*\* - .001

KEY TO TABLE 38: (CHANGE)= 'changing the situation'; (ACCOM)= 'adjusting desires to meet the situation'; (DEVAL)= 'reduce the importance associated with the discrepancy'; (AVOID)= 'direct attention away from the situation'; (REDUCE)= 'improve well-being directly'; (SUPPORT)= 'seeking social support'.



The above results have produced medium correlations; the lowest being 'changing the situation' and 'accommodation' (r=.32) and the highest between 'devaluing' and 'avoidance' (r=.53).

### 16.1.13. World Assumptions Scale.

The WAS1 TO WAS32 variables measure intra-psychic assumptions which may underpin the individuals perception of traumatic encounters, based on eight dimensions of the World Assumptions Scale (WAS; Janoff-Bulman 1989) on a 6-point Likert-type scale where '1' = 'Strongly agree' to '6' = 'Strongly disagree'.

In accordance with the procedure suggested by the author, WAS 2,8,12,18 and 31 are reverse scored and the internal consistency for the WAS1 TO WAS32 variables (WASALL) are reported as  $\alpha=.82.$ ; mean = 98.05; standard deviation = 15.17; minimum range = 45; maximum range 148.

The World Assumption Scale items contain eight variables (composed of 4 items each) associated with personal views about people and the world, and have been named in the METPOL study as: 'benevolence towards the world (BENWOR)'; 'benevolence towards people (BENPEP)'; 'justice (JUSTICE)'; 'controllability (CONTROL)'; 'randomness (RANDOM)'; 'self Worth (WORTH)'; 'self-confidence (SELFCON)'; and the 'forces of chance (LUCK)'.

The following items were then grouped, calculated, and the Cronbach's  $\alpha$ , means, standard deviations, minimum and maximum ranges reported as follows:

WAS5,9,25,30 (BENWOR,  $\alpha=.77$ ; M=12.11; SD=3.78; Min.=4; Max.=24).  
 WAS2,4,12,26 (BENPEP,  $\alpha=.70$ ; M=11.38; SD=3.52; Min.=5; Max.=24).  
 WAS1,7,14,19 (JUSTICE,  $\alpha=.73$ ; M=16.11; SD=3.93; Min.=5; Max.=24).  
 WAS11,20,22,29 (CONTROL,  $\alpha=.76$ ; M=14.39; SD=3.83; Min.=7 Max.=24).  
 WAS3,6,15,24 (RANDOM,  $\alpha=.65$ ; M=12.34; SD=3.71; Min.=4; Max.=24)  
 WAS8,18,28,31 (WORTH,  $\alpha=.75$ ; M=9.13; SD=3.62; Min.=4; Max.=20).  
 WAS13,17,23,27 (SELFCON,  $\alpha=.72$ ; M=10.39; SD=2.96; Min.=4; Max.=24).  
 WAS10,16,21,32 (LUCK,  $\alpha=.81$ ; M=12.50; SD=4.02; Min.=7; Max=24).

Table 39 below, show the intercorrelations between the eight dimensions of the world assumptions scale:

**TABLE 39: Showing Reported Intercorrelations For The World Assumptions Scale Variables In The METPOL Survey (N=134).**

	JUSTICE	BENPEP	RANDOM	BENWOR	WORTH	SELFCON	CONTROL
BENPEP	.0078						
RANDOM	.0606	.1397					
BENWOR	.2106	.5925**	.0735				
WORTH	.0821	.1277	.0240	.0615			
SELFCON	.3614**	.0687	.1730	.1261	.2610*		
CONTROL	.5989**	.0079	.0603	.1743	.0692	.5019**	
LUCK	.0678	.2266	.2176	.2325*	.2005	.2965**	.1190

N of cases: 126 2-tailed Signif: \* - .01 \*\* - .001

Of note are 'control' and a 'belief in justice' which correlate at  $r=.59$ ; 'benevolence towards people' and 'benevolence of the world'  $r=.59$ ; 'control' and 'self-control' correlate at  $r=.50$ ; 'justice' and 'self-confidence' correlate at  $r=.36$ ; and 'self-confidence' and 'luck' which correlates at  $r=.29$ . These were significant at the  $p < .001$  level (2-tailed).

The variable 'worth' and 'self-confidence' correlated at  $r=.26$  and 'benevolence of the world' and 'luck'  $r=.23$  (2-tailed  $p < .01$ ). The remainder yield no useful or significant intercorrelations.

**16.1.14. Comparisons Of IESTOTAL, INTRUDE, INTEX, AVOID And AVEX Variables Across Frequency Of Traumatic Experience.**

To further test the relationship between multiple exposure to trauma and the impact that it has on police officers, post-hoc comparisons (one-way analysis of variance, range Tukey - see Appendix "F" for all the post-hoc analyses for the METPOL data) were conducted for the IES variables. The IES variable reflects reports of experiencing trauma either, '0=None'; '1=Once'; '2=Twice'; or '3=Three or more' times.

This was compared with IESTOTAL which is the sum of intensity and frequency of intrusion and avoidance variables for the Horowitz et al. (1979) items.

TABLES 40 to 44 below show the results for the one way analyses of variance using the multiple range test (TUKEY-HSD procedure):

**TABLE 40: Showing A One-Way Analysis Of Variance For The Variable IESTOTAL With IES In The METPOL Survey (N=134).**

SOURCE	DF	SS	MS	F.Ratio	F. Prob
BETWEEN	3	22316.17	7438.72	5.69	.00
WITHIN	130	169890.18	1306.85		
TOTAL	133	192206.35			
GROUPS	COUNT	MEAN	SD	SE	95% Conf. Interval For Mean
GROUP0	14	17.14	30.96	8.27	-.73 to 35.02
GROUP1	78	59.66	35.29	3.99	51.71 to 67.62
GROUP2	27	59.52	44.33	8.53	41.98 to 77.05
GROUP3	15	55.80	27.24	7.03	40.71 to 70.88
TOTAL	134	54.76	38.01	3.28	42.26 to 61.26

KEY TO TABLES 40 to 44: (SOURCE)= Group Membership; (BETWEEN)= Between Groups; (WITHIN)= Within Groups; (DF)= Degrees of freedom; (SS)= Sum of squares; (MS)= Mean Squares; (COUNT)= No of Respondents in group; (MEAN)= Arithmetic mean; (SD)= Standard Deviation; (SE)= Standard Error; (IESTOTAL)= Sum of the frequency and intensity of intrusion and avoidance scores; (IES)= Multiple exposure to trauma; (INTRUDE)= Frequency of intrusion; (INTEX)= Intensity of intrusion; (AVOID)= Frequency of avoidance; (AVEX)= Intensity of avoidance; (GROUP0)= 'No exposure to trauma'; (GROUP1)= 'One exposure to trauma'; (GROUP2)= 'Two exposures to trauma'; (GROUP3)= 'Exposure to trauma three or more times'.

Post-hoc comparisons (TUKEY-HSD procedure) indicated that the IESTOTAL groups (for frequency and intensity of intrusion and avoidance) showed significant differences between IES Groups 1,2,3 (exposure to trauma, 'once', 'twice' or 'three or more times') and Group 0 ('none') at the  $p < .05$  level.

This provides some evidence that exposure to trauma for a few individuals is associated with higher scores reflecting both frequency and intensity of intrusion and avoidance. However, Groups 1,2 and 3 did not differ significantly from each other.

Similar one way analyses of variance were conducted for the separate items of the Impact of Events Scale for INTRUDE (frequency of intrusion items); INTEX (intensity of avoidance items); AVOID (frequency of avoidance); and AVEX (intensity of avoidance). These tests were conducted to further explore the relationships between multiple exposure to trauma in relation to the individual variable items and are reported below:

**TABLE 41: Showing A One-Way Analysis Of Variance For The Variable IES With The INTRUDE Variable In The METPOL Survey (N=134).**

SOURCE	DF	SS	MS	F.Ratio	F. Prob
BETWEEN	3	1424.85	474.95	6.43	.00
WITHIN	130	9598.08	73.83		
TOTAL	133	11022.93			
GROUPS	COUNT	MEAN	SD	SE	95% Conf. Interval For Mean
GROUP0	14	3.71	6.85	1.83	-.24 to 7.67
GROUP1	78	14.66	8.77	.99	12.69 to 16.64
GROUP2	27	12.96	9.57	1.84	9.17 to 16.75
GROUP3	15	13.26	6.95	1.79	9.42 to 17.12
TOTAL	134	13.02	9.10	.79	11.47 to 14.58

Again, post-hoc comparisons (TUKEY-HSD procedure) provides some evidence that exposure to trauma (IES) is associated with higher scores reflecting the frequency of intrusion (INTRUDE) of traumatic events.

Although the means in Table 41 suggest that there was a difference between Group 0, 'no exposure to trauma' and the rest of the groups, there are no differences between Group 3 who are exposed to trauma 'three or more times', Group 2 ('twice'), or Group 1 'exposed to trauma once' at the  $p < .05$  level.

Tables 42 to 44 below include the results for multiple exposure to trauma (IES) comparisons with the intensity of intrusion (INTEX); and the frequency and intensity of avoidance (AVOID; AVEX):

**TABLE 42: Showing A One-Way Analysis Of Variance For The Variable IES With INTEX Variable In The METPOL Survey (N=134).**

SOURCE	DF	SS	MS	F.Ratio	F. Prob
BETWEEN	3	927.29	309.09	3.95	.00
WITHIN	130	10150.91	78.08		
TOTAL	133	11078.21			
GROUPS	COUNT	MEAN	SD	SE	95% Conf. Interval For Mean
GROUP0	14	4.00	7.39	1.97	-.27 to 8.27
GROUP1	78	12.77	9.09	1.03	10.72 to 14.82
GROUP2	27	12.11	9.69	1.86	8.28 to 15.94
GROUP3	15	12.20	6.74	1.74	8.47 to 15.93
TOTAL	134	11.66	9.13	.78	10.09 to 13.22

In relation to the intensity of intrusion variable (INTEX), post-hoc comparisons (range TUKEY-HSD) reveal slight evidence that exposure to trauma (IES) for a few individuals, is associated with higher scores reflecting the intensity of intrusion of traumatic events.

However the results for Table 42 suggests that Group 0, 'No exposure to trauma' differs from Group 1 'exposed to trauma once' and Group 2, 'exposed to trauma twice' - but not Group 3, 'exposed to trauma three or more times'. These results may be due to group size differences.

Table 43 examined compared frequency of avoidance of trauma (AVOID) with the IES group exposure and is reported below:

**TABLE 43: Showing A One-Way Analysis Of Variance For The Variable IES With AVOID Variable In The METPOL Survey (N=134).**

SOURCE	DF	SS	MS	F.Ratio	F. Prob
BETWEEN	3	857.37	285.79	4.60	.00
WITHIN	130	8074.15	62.11		
TOTAL	133	8931.52			
GROUPS	COUNT	MEAN	SD	SE	95% Conf. Interval For Mean
GROUP0	14	2.64	4.62	1.23	-.02 to 5.31
GROUP1	78	10.58	7.45	.84	8.89 to 12.26
GROUP2	27	11.63	10.44	2.01	7.49 to 15.76
GROUP3	15	10.40	6.99	1.80	6.53 to 14.27
TOTAL	134	9.94	8.19	.71	8.54 to 11.34

For the frequency of avoidance variable (AVOID), there was a small but significant difference for Group 0 who were not exposed to trauma (IES), and Group 3, 'three or more times'; Group 2 ('twice') and Group 1 ('once') at the  $p < .05$  level. There were no differences between Groups 1, 2 and 3.

Table 44 examined those groups who were exposed to multiple trauma (IES) with the intensity of avoidance variable (AVEX):

**TABLE 44: Showing A One-Way Analysis Of Variance For The Variable IES With AVEX Variable In The METPOL Survey (N=134).**

SOURCE	DF	SS	MS	F.Ratio	F. Prob
BETWEEN	3	555.87	185.29	3.09	.03
WITHIN	130	7783.59	59.87		
TOTAL	133	8339.47			

  

GROUPS	COUNT	MEAN	SD	SE	95% Conf. Interval For Mean
GROUP0	14	3.14	6.44	1.72	-.57 to 6.86
GROUP1	78	8.74	7.15	.81	7.13 to 10.35
GROUP2	27	10.81	10.44	2.01	6.68 to 14.95
GROUP3	15	7.93	5.81	1.50	4.71 to 11.15
TOTAL	134	8.48	7.92	.68	7.13 to 9.84

Post hoc comparisons (range TUKEY-HSD) revealed a minor but significant difference for Group 0 and Group 2, who were exposed to trauma (IES) at least twice, for the intensity of avoidance items (AVEX) at the  $p < .05$  level.

Further post-hoc comparisons were conducted for the IES groups with the PTSD items of intrusion, avoidance and hyperarousal, and the eight dimensions of the World Assumptions Scale (WAS; Janoff-Bulman 1989) but these yielded no significant or useful results.

#### 16.1.15. Best Practice In Interventions.

Table 45, below, shows the frequencies and percentages of responses to the 'Best Practice' category (BEST1 to BEST10) coded as, '0=NO' and '1=YES'. The items were derived from interviews with police and civil staff during the Interview Phase of this thesis.

For the sake of simplicity this table also provides general information on 'Best Practice' for both the METPOL and MAIN U.K. surveys. This was done to provide practitioners with information, at a glance, which would help in tailoring their services to officers and civil staff who may require information and assistance in the future.

TABLE 45: Showing A Comparison Of Percentage of Responses To The 'Best Practice' Category In The MAIN U.K. Forces Survey (N=528) And The METPOL Survey (N=134).

ITEM RESPONSES	MAIN U.K. FORCES (N=528)				METPOL SURVEY (N=134)				Ty	R
	NO		YES		NO		YES			
PERCENTAGES (%)    FREQUENCIES (F)	%	F	%	F	%	F	%	F		
Clearer information on the causes and effects of stress/anxiety/trauma	9	47	91	481	11	14	89	120	601	1
In house counselling for the personal effects of stress/anxiety/trauma	24	128	76	400	24	32	76	102	502	5
External counselling for the personal effects of stress/anxiety/trauma	18	93	82	435	30	40	70	94	529	4
Clearer supervisory training on the effects of stress/anxiety/trauma	10	55	90	473	15	20	85	114	587	2
Clearer individual training on the effects of stress/anxiety/trauma	12	64	88	464	21	28	79	106	570	3
In house debriefing on the effects of stress/anxiety/trauma	23	123	77	405	29	39	71	95	500	6
External debriefing on the effects of stress/anxiety/trauma	37	194	63	334	48	64	52	70	404	8
Self help package on how to deal with stress/anxiety/trauma	33	174	67	354	42	56	58	78	432	7
A specific newsletter or journal which provides current information on the effects of stress/anxiety/trauma	55	290	45	238	57	77	43	57	295	10
Regular features in local newsletters or journals which provides current information on stress/anxiety/trauma	48	255	52	273	52	69	48	65	338	9
OTHER COMMENTS ADDED	88	464	12	64	90	120	10	14	78	11

All Percentages Rounded Up To Nearest Decimal Point.

KEY TO TABLE 45: (NO)= No response to category; (YES)= Yes response to category; (%)= Percentage of responses; (F)=Frequency of responses; (Ty)= Total 'Yes' responses for each item; (R)= Ranked in order of highest 'Yes' response for both surveys.

The responses were then summed and ranked in order of the highest 'YES' responses for the item, so Rank 1 included, 'Clearer information on the causes and effects of stress/anxiety/trauma'; Rank 2 called for, 'Clearer supervisory training on the effects of stress/anxiety/trauma' and Rank 3 called for, 'Clearer individual training on the effects of stress/anxiety/trauma'.

Ranks 4 and 5 provide an almost even split on 'in-house' and 'external' counselling, whilst Rank 6 called for 'in-house debriefing'.

Rank 7 requested 'self-help' packages and Rank 8 proposed 'external debriefing' measures.

Ranks 9 and 10 proposed 'regular features' in local (i.e. work-related) newspapers and journals which provide current information, and/or a 'specific newsletter or journal'.

A further category (BEST11) was a free text box to find out if there were any other interventions not previously elicited from the questionnaire.

Rank 11 (the free text entry) elicited N=64 (12%) 'YES' responses for the Main U.K. Forces Survey and N=14 (10%) for the Metropolitan Police Survey.

An analysis of the free-text entries revealed further useful information on 'best practice' initiatives with two exceptions:

1. There were further general comments about supervisory attitudes to work stress and trauma - reflecting RANK 2 above.
2. General comments about 'normalising' the effects of stress, anxiety and/or trauma were also made, reflecting the need for education of the workforce, as well as sympathy and understanding being directed towards possible victims of work stress and other anxiety.

#### **16.1.16. Other Information.**

Appendix "B" paragraph 8.1. contained two 'free text' boxes asking questions about, 'future research into trauma'. These boxes were added on advice from Cranfield University's Ethics Committee.

The first box asked for general comments to be made about the nature of trauma. This elicited few responses, but were mostly concerned about the end-product of the research and whether such results would be made public.

There were no adverse reports about the possible intrusive nature of the survey itself.

The second box asked for general comments about the structure of the questionnaire for the METPOL Survey. As a result of the brief responses the questionnaire design was slightly modified for the Main U.K. Forces Survey.

### **DISCUSSION OF STUDY TWO.**

#### **17. Qualitative Data.**

The METPOL survey confirmed early expectations about the relative value of using psychometric measures of trauma acquisition; the impact of events; their appraisal; and the health outcomes in relation to psychological well-being. The trauma experiences of police officers provides more than just datum points for statistical analysis, it says something about the nature and context of individual and personal endeavour in an occupation which is fraught with difficulty and, at times, distressing episodes involving stressful encounters.

For example, Appendix "C" provides qualitative information about the kinds of trauma that police officers experience. And the IES referents (shown in bold in the Appendix) refer to personal experiences of illness or injury as well as that of relatives. There are also reports of homicides, sudden, violent death, riots and some technological disasters - all of which leave an impact on the individual.

There was also clear evidence of multiple exposure to trauma which provided an important insight into how the officers appraised and coped with trauma itself.

### **17.1. Multiple Exposure To Traumatata.**

Multiple exposure to work stress and, more importantly, work related trauma can be adduced from several significant results shown above. For example, Peters-Bean (1993) reports that the frequency of work related problems (WORK1 TO WORK10) for scale 4 or 5 is likely to occur in about 10% of police populations. In the METPOL survey (Table 18), 8% (N=13) reported work related trauma, whilst 17% (N=23) reported non work related trauma affects - i.e. 25% (N=36) of the respondents exceeded previously reported results (Peters-Bean 1993) for scale 4 and 5.

Additional evidence for the cumulativeness of work related trauma was also gleaned from the WORKEX1 TO WORKEX5 variables, where 41% (N=55) recalled a further 5 additional work related problems and were prepared to name categories of work stressors, not ordinarily included in the 10 work related items (see also Appendix "C").

Stronger evidence for the multiple exposure to trauma comes from the IES referents themselves. This survey highlighted problems associated with the Horowitz et al. (1979) study. It was argued that the original results focused on psychiatric patients presenting problems within 'the past week', which, it was argued, limited the study of trauma to a narrowly defined time period. The METPOL survey opened up the time scales to include, 'the recent past' and this revealed significant reported problems, occurring for at least 2 to 3 years, prior to the current research taking place. Additionally a large proportion of the respondents (44% or N=57) reported having experienced these problems, 'often'.

Horowitz et al. (1979) also argued that single intrusive and intensive images and thoughts were likely to be similar in effects to multiple episodes of only mildly intrusive episodes. Yet he did not report any useful results confirming this hypothesis. Similarly, McCafferty, Domingo and McCafferty (1990) argue that long-lasting neurobiological effects take place in persons who are repeatedly traumatised (i.e. the 'kindling phenomenon') or who are exposed to one trauma event which is intrusively re-experienced (Van Der Kolk 1993). But these authors do not report any useful research into multiple exposure to trauma. Gersons (1990), on the other hand, pointed to the notion that repeated serial traumatisation did not produce any long-lasting psychological effects.

#### **17.1.1. The Impact of Multiple Event Exposure.**

The Impact of Event Scale proposed by Horowitz et al. (1979) confined itself to single episodes of trauma, but the METPOL survey amended its original parameters to include the frequency and intensity of intrusion and avoidance, specifically scanning for multiple trauma exposure.

In relation to reports of frequency and intensity of intrusion and avoidance, the current survey, (recoding the IES referents for multiple exposure) revealed that there were small but significant differences between police groups who were not exposed to trauma (Group 0), or were exposed 'once' (Group 1), 'twice' (Group 2) or 'three or more times' (Group 3).



The threshold tables for the individual variables for frequency and intensity of intrusion and avoidance (INTRUDE; INTEX; AVOID and AVEX - see Tables 23,25,27 and 29) reveal some interesting findings which are worth highlighting below.

For example, an overall high percentage of respondents report frequency of intrusion (46% or N=62) and intensity of intrusion (39% or N=52).

Conversely, an overall smaller proportion of respondents report frequency of avoidance (28% or N=38) and intensity of avoidance (19% or N=26).

These results confirm our notion that, for police officers at least, intrusion may be intensely experienced, but may decay over a short period of time, as attempts are made to resolve the trauma. Horowitz et al. (1979) reports that psychiatric and non-psychiatric patients have difficulty, are forgetful, and show less conviction if any trauma event took place longer than one week. Further difficulties are experienced when they tried to recall trauma within a few days of their distress.

Fewer reports of avoidant behaviour may point to the idea that avoidance is something more than a facet of denial or repression. The current study supports the hypothesis by Bloch (1991) and others (Horowitz 1993; Lazarus 1983) that that avoidant behaviour may be the subject of resolution at a later stage as an adaptive mechanism of defence, in effect reducing or constricting emotional and/or ideational processing of trauma events. Janoff-Bulman and Timko (1987) refer to avoidance as an adaptive consequence of trauma. However, these theories, it is argued here, may be difficult to test empirically, but Hetherington (1993) reported that police Traffic Officers', 'Impact of Event' scores revealed a high incidence of intrusive and avoidant thoughts and behaviour, though her study did not differentiate between single trauma events or multiple exposure.

Avoidance, per se, was discussed as a dissociative mechanism of defence (Bloch 1991) as was depersonalisation and burnout (Shilony and Grossman 1993). Conversely, intrusion was viewed as a means of working through the impact of the trauma (i.e. by incorporating anomalous information into a 'trauma signature' - which will be discussed in some detail later).

The METPOL survey indicates that multiple exposure to trauma, may represent what Bromet (1990, pp 1719) refers to as a, 'constellation of events triggered by the crisis so that psychiatric effects may be related to all aspects of the trauma'. The frequencies of intrusion and avoidance (Neal et al. 1994) results in Table 30, highlight that 30% (N=40) of the respondents endorsed a threshold (IESTHRESH) score of 38 or more, indicating possible indices of 'predictable and repetitive trauma' (Williams 1993).

Whether or not IES intrusion and avoidance can be linked to PTSD intrusion and avoidance affects is a different matter. The METPOL results show these to be highly correlated (IESALL/PTSDALL  $r=.70$  at  $p < .001$ ) but the diagnosis of PTSD itself cannot be said to be complete. Duckworth (1990) argues that normal post-traumatic stress reaction is not necessarily the same as acquiring PTSD symptoms and Davidson and Foa (1991) argue that the presence of a traumatic stressor is not in itself sufficient to cause PTSD. Scott and Stradling (1994), on the other hand, have described persons who have acquired the symptoms of PTSD, without there being an initial trauma event.

With regard to the PTSD results in the METPOL survey, further research is required to test the validity of the item constructs (for DSM-III-R 1987 and DSM-IV 1994 criterion). The Brief Psychiatric Rating Scale (Overall and Gorham 1962) which was used, has indicated that some 34% or (N=47) respondents exceed the threshold score of 3 or more items, without necessarily acquiring PTSD. However, DSM-IV (1994) does indicate that a traumatic experience does not need to be present to contribute to the cluster of symptoms. Rather, PTSD symptoms may be part of the larger 'adjustment disorders' symptomatology.

Therefore the evidence for providing a measurement of PTSD intrusion and avoidance remains inconclusive. The current results have indicated that future surveys should concentrate on the Impact of Events Scale, provided by Horowitz et al. (1979), as amended by the METPOL data, to include a measurement of multiple exposure to trauma.

Appraisal mechanisms, also, are not so straightforward as previous authors (Dewe 1991b) has suggested. Whilst the items for primary appraisal (Cronbach's  $\alpha=.92$ ) and secondary appraisal (Cronbach's  $\alpha=.74$ ) show high internal consistency, there are distinct differences in the use of these evaluation constructs to assist in dealing with the onset of trauma. For example, factor analyses reported by Dewe (1991b) have revealed that primary appraisal offers a unidimensional solution, whilst secondary appraisal separates, 'one that I must accept or that I just got used to' from other factors, involving the evaluation of resources to enable one to cope with the trauma.

Janoff-Bulman (1989) argues that victims resolve cognitive crises by developing more complex schemas about themselves and their world. But the reverse may also be true - where primary appraisal initiates a weakened trauma signature, this may act as a 'pre-primary appraisal' focus for coping and the respondent is predisposed to cope maladaptively.

'Pre-primary appraisal' factors may involve learning that organisational distress and trauma are part of one's lot and beyond individual control. Officers may learn to resign themselves to the fact that coping has already been impoverished by the culture of the organisation itself.

Fain and McCormick (1988) note that police officers use coping mechanisms which increase their stress rather than alleviate it, such as emotion-focused coping strategies involving the use of alcohol, drugs, deviance and cynicism. Similarly, Folkman, Lazarus, Gruen and DeLongis (1986) report that emotion-focused coping may be moderately stable across stressful encounters and so affect adaptional outcomes. Hart, Wearing and Headey (1995) highlight that problem-focused coping resulted in positive work experiences for police officers and that emotion-focused coping contributed to more negative work experiences.

Further evidence is offered in support of this notion when respondents are asked to choose which item best reflects how the incident affected them personally (Table 33). When ranked, according to the highest responses for each item, Table 33 revealed that 'One that I must accept or that I just got used to' and 'One where work bureaucracy made it difficult to deal with' indicates that there is some tension in coping with trauma, particularly if there is poor support in police organisations to successfully achieve a positive outcome.

Since secondary appraisal is linked to coping, general mental well-being measures indicate that a small proportion (5%; N=7) of the respondents endorse higher threshold scores of 8 or more symptoms associated with context free mental health (Table 35). Whilst this does not provide supporting evidence of poor mental health for police officers, it nevertheless points to the notion that trauma has a minor effect, but only if it is not adequately resolved during or after crises.

Evidence of coping is gleaned from the revised cybernetic coping scales which show that devaluation, avoidance and accommodation reflects, 'passive' attempts at coping, whilst 'seeking social support, changing the situation and attempts at symptom reduction' remain as 'active' modifiers of coping. Additional correlational techniques were conducted using the 'active' versus 'passive' meta-variables, but since the six forms of cybernetic coping are thought to be inter-related, it was not useful to report them in this study. However, future research should bear in mind that the cybernetic coping scales may require additional analyses to establish if the item constructs are mutually exhaustive.

#### **17.1.2. The Evaluation Of Trauma Signature Theory.**

The process of modifying appraisal into useful and directive coping strategies may also be similar to cognitive schema states - which serve to integrate external experience into existing internal frameworks. Schematisations of this sort will either assist in positively identifying coping strategies or hinder coping leading to negative outcomes (Horowitz 1993).

Janoff-Bulman and Frieze (1983) assert also that victims have 'cognitive baggage' - i.e. assumptions and expectations they have about themselves and their world, and which have been severely challenged on encountering a traumatic event.

Personal theories allow people to set goals and plan activities, thus imposing order on their behaviour. And there appears to be discrete beliefs associated with, personal invulnerability; the perception of the world as being meaningful and comprehensible; and the view of ourselves in positive light (Janoff-Bulman and Frieze 1983).

Where positive coping may be hampered by negative affectivity (Parkes 1990) associated with emotion-focused coping, internal locus of control and low self regard, this may lead to maladaptive coping.

Of necessity, trauma signatures should link person-environment transactions between stressor and outcome, and moderate the relationship between the stressor and the reaction. But how are the trauma signatures operationalised?

The above results reflect the notion that traumatic signatures moderate or modulate the mechanisms of appraisal and coping constructs. Further, assumptions about a personal world, and the belief systems associated with intrapsychic models of the world reveal minor correlations associated with, 'self confidence, justice and control'; 'benevolence towards the world and people' and issues relating to 'luck and self-worth' (Table 39).

Of significance here, is that police officers may have well-defined intrapsychic constructs which assist in the negotiation of the event, the appraisal of the event, coping with the event, and the psychological outcomes.

This leads us to the tentative conclusion that beliefs associated with assumptions about the world are, in fact, trauma signatures which serve as an additional mechanism for resolving the trauma itself. Hence it is unwise to comment on the magnitude of the trauma event, but it is prudent to comment on the management of the trauma for the individual.

That apart, one-way analyses of variance (HSD-TUKEY procedure) was conducted for multiple exposure to trauma (IES) with the eight dimensions of the World Assumptions Scale (BENPEP; BENWOR; JUSTICE; CONTROL; LUCK; RANDOM; SELFCON; and WORTH), but these yielded no significant results.

However, the MAIN U.K. Survey (reported below) may well provide evidence for the existence of traumatic signatures, in relation to multiple exposure to trauma and other indices of appraisal, coping and psychological well-being.

## 18. SUMMARY.

Early indications in the METPOL survey have provided positive support for the notion of sequential trauma affect states. Here there were distinct and important differences between groups who were not exposed to trauma, or were exposed to trauma once, twice, or more than three times. Further evidence was provided that the survey questionnaire was sensitive enough to differentiate between indices of trauma acquisition (through the IES items intrusion and avoidance); primary and secondary appraisal; cybernetic coping; and outcomes - in terms of state and trait psychological well-being.

A further study (MAIN U.K.) was then conducted to test the above psychological measures of trauma in a wider population of police officers within 40 Police Forces in the United Kingdom.

There were three distinct aims associated with this wider, broad-based survey:

1. The measurement of the impact of trauma. This expanded on the measures of mental health, but specifically excluded PTSD specific items.

Because of the difficulties in measuring intrusion and avoidance within PTSD items, as compared with the revised IES measures intrusion and avoidance, a decision was made to avoid duplication of these two measures. Therefore the PTSD variables were discounted.

2. By expanding upon the measures of coping processes, as well as the processes of primary and secondary appraisal, the survey hoped to provide further evidence in relation to the possible use of coping within trauma signatures.
3. By investigating the relevance of trauma related schema (such as the World Assumptions Scale) in relation to the above processes, it was hoped that further evidence could be found in relation to the use of trauma signatures in multiple exposure to trauma.

## 19. STUDY THREE: THE MAIN U.K. FORCES STUDY.

Having completed the Metropolitan Police study, the MAIN U.K. Forces Study consisted of minor amendments to the proposed Sequential Trauma Questionnaire.

These amendments took into account qualitative feedback from the respondents and an enhanced awareness of the need to promote and maintain confidentiality and anonymity in accordance with rigorous ethical considerations. The development of the questionnaire and subsequent changes are described below.

### 19.1. The MAIN U.K. Questionnaire.

In accordance with point 3 of the methodology, this study was undertaken to assess dimensions such as the nature of the traumatic encounter and its appraisal, coping and outcome within a larger police population composed of specific groups.

Each questionnaire consisted of a front page, outlining the 'strictly confidential' nature of the study, the contact name, address and number of the researcher, and the legend 'Trauma In The Workplace: Forces Questionnaire'.

For full details see Appendix "D".

The Second Covering page consisted of an introductory letter with minor variations to the text. Included in this letter were points reaffirming that the respondent had been completely chosen at random, and that the researcher had no prior information about the respondent's work or domestic circumstances.

The caveat advising respondents to seek assistance and help for potential problems was moved to the following page.

The Third covering page consisted of an 'informed consent' notice, which was added to acquaint respondents of the context and authority for conducting the main study. The text stated that permission had been granted by their respective Force and that their Force would not be granted access to information concerning any individual.

A cautionary note requesting respondents with personal problems to seek early assistance was also included, as well as a contact number for the researcher if further information or advice was required.

Since participation was purely voluntary and dependent on understanding the 'informed consent' notice, the respondents were assured that if they felt they could not make a contribution, they could return the questionnaire (freepost) unmarked - but if they wished to continue with the survey, they could follow the instructions on the following page.

The Fourth Covering page, consisted of instructions for completing the self-report questionnaire and returning it in anonymity.

The above provisions would seem to be detailed and insistent, but considered necessary to impart to the respondents that such research is necessary and vital to recover information about trauma in the workplace, without compromising a frank and honest exchange of that information.

Suspicion, and sometimes hostility, concerning psychological research is prevalent within the Police culture and the researcher must take account of genuine issues regarding the maintenance of confidentiality and that the possibility of eliciting previously undisclosed anxiety.

So careful preparation of introductory letters, issues concerning the true nature of voluntary participation, help-seeking mechanisms, and the respondents right to withdraw must be firmly and clearly addressed and validated by the University's Ethics Committee.

The respondent must be left with no doubt as to the purpose and intent of this research, who will hold and access the data, and be reassured that 'strictly confidential' means just that.

#### **19.1.1. The Questionnaire Items.**

Page Five of the Main U.K. Forces questionnaire consisted of a ten item 'Work Problems' (WORK1 TO WORK10) category, previously described in the METPOL version of the trauma questionnaire, using a 5 point Likert type scale ('1=Has Not Applied' to '5=Has Very Often Applied').

Page Six dispensed with the ten item 'Domestic Problems' (DOM1 TO DOM10) category as shown in the METPOL research. This was excluded because respondents would record several problems covering different items which could not easily be differentiated from each other.

Instead respondents were invited to recall if they had encountered any particular problems in the home and answer three questions should non work matters have influence, 'IN THE RECENT PAST'. Where no domestic problems were reported they were directed towards Page Seven - the IES Referent - and so on.

Thereafter three questions were posed: 'Do you think this problem has affected your HOME life' (HOMEAFF) and 'Do you think this problem has affected your WORK life?' (WORKAFF). These questions used a 7 point Likert type scale ranging from '1=Not at all' to '7=Very much'.

The respondents were also asked, 'Are you still experiencing this problem?' (WORKST) and could indicate their responses using a 3 point Likert type scale ranging from '1=No', '2=Sometimes' or '3=Often'.

Additionally respondents were asked to indicate, 'When did this problem first occur?' (WORKOC) and were directed to write their answer in number form for 'YEARS' and/or 'MONTHS'. These questions assessed whether perceived problems affected work or home life without necessarily asking what the problem was, to preserve confidentiality. For example, if the problem was still being experienced, and if there was an established time period for the reported problem, then useful knowledge could be obtained without compromising the individual's anonymity; or perceptions about threats or influences on their career; or in disclosing personal (previously unrecorded) information. Therefore the confidentiality issue remained secure.

Page Seven, paragraphs 3.1. to 3.3. preserved the IES format used in the METPOL survey. This included a 'free text' box of about half a page, where respondents could record any particular (traumatic) event which took place in the recent past, and formed the Impact Of Event Scale referent (Horowitz et al. 1979; the IES referent).

If the respondent was still experiencing the problem (IEST), they could tick a box for '1=No; '2=Sometimes' or '3=Often'; and they were also asked to record when the problem first occurred (IESOC) in YEARS and/or MONTHS.

Pages Eight and Nine preserved the 7 items covering the frequency and intensity of intrusion (INTRUDE; INTEX) and 8 items covering the frequency and intensity of avoidance (AVOID; AVEX) using the Horowitz et al. (1979), 4 point Likert type scale, '0=Does Not Apply'; '1=Rarely/mildly applies'; '3=Sometimes/Moderately applies' and '5=Often/Severely Applies'.

The 17 item PTSD scale using the 7 point Likert type suggested by Overall and Gorham 1962 (Brief Psychiatric Rating Scale) was excluded from the Main U.K. Forces questionnaire as the items covering intrusion, avoidance and hyperarousal have been covered elsewhere (i.e. the IES variables for INTRUDE; INTEX; AVOID and AVEX and the GHQ12/N1 to N6 items, for example).

Similarly respondents who reported one or more PTSD symptoms may not have been given the opportunity to link these symptoms with either perceived WORK and/or DOMESTIC problems, whereas the IES referent was closely associated with measures of intrusion and avoidance.

Because of possible problems with confounding the data and issues of collinearity, it was considered that the PTSD items, although providing additional useful information in the pre-test, could be excluded to offset redundancy in the other more important dimensions of intrusion, avoidance and outcome measures.

Pages Ten and Eleven preserved the 8 item primary appraisal questions (PRIME1 TO PRIME8) and the 6 item secondary appraisal (SECOND1 TO SECOND6) questions with the additional 'secondary appraisal' (SECEX) choice format suggested by Dewe (1991b).

Pages Twelve and Thirteen were also preserved and covered the GHQ1 TO GHQ12 (Goldberg 1972) items which are measured in association with the 6 item Neuroticism scale (N1 TO N6; Eysenck and Eysenck 1964), in keeping with the earlier discussion on the problems of 'chronicity' (Goodchild and Duncan-Jones 1985).

Pages Fourteen and Fifteen preserved the Cybernetic Coping Scale (CCS1 TO CCS24; Edwards 1991; Edwards and Baglioni 1993) items as discussed previously.

Pages Sixteen to Eighteen preserved the 32 item World Assumptions Scale (WAS1 TO WAS32; Janoff-Bulman 1985a; 1989) where notions of the accumulation of traumatic 'schemas' are being explored as having connection with issues of psychological appraisal processes and the maintenance of an individual's current traumatic disturbance (see Duckworth 1990). The 32 items are divided into eight dimensions covering, 'BENPEP; BENWOR; RANDOM; CONTROL; SELFCON' JUSTICE; LUCK and WORTH) with WAS2,8,12,18 and WAS31 being reverse scored.

Page Nineteen preserves the 11 item 'BEST PRACTICE' section using bipolar responses ('1=YES' or '0=NO') to determine respondents' views on current intervention strategies which are being proposed in a number of Constabularies at the time of writing and of particular interest to the survey sponsors.

Page Twenty contains questions on biographical data using the variable categories for AGE; LENGTH OF SERVICE; GENDER; DOMESTIC (marital) STATUS; RANK OR GRADE; CURRENT POST and tenure in CURRENT POST. The page also re-affirmed that the information was confidential and individual feedback could not be given. For reasons of confidentiality and anonymity, it was stated that the researcher, alone, would have access to the responses, but summaries of results and findings would be available on request.

#### **19.1.2. Distribution Of Main Questionnaires.**

On the 10th May 1994 all the MAIN U.K. Constabularies within the U.K. (with the exception of the Isle Of Man, Jersey and Guernsey) were contacted, via their Assistant Chief Constable's Personnel and Training, and invited to take part in the main survey.

A 'liaison' person through which confidential personnel lists could be obtained, was provided in 38 (75%) Forces.

In addition an 'opportunity sample' from officers of miscellaneous ranks from the Metropolitan Police Service was included. These officers differed from those extensively used in the pre-test.

Thirteen Forces (25% of the sample) did not answer the request or declined to take part for internal reasons (similar research or restructuring problems). Only one constabulary (Hertfordshire) raised objections to the study and accordingly their co-operation was withdrawn.

Letters outlining the proposed study, together with a sample of the questionnaire and the methodology were sent on 10th June 1994.

A further letter was sent on the 22nd July 1994, asking for comprehensive lists of personnel working within various departments or groups in that Constabulary. When the lists were received, future respondents were drawn at random within the group and the original personnel rota (or nominal role) was destroyed to preserve confidentiality.

Table 46a, 46b and 46c below shows the Forces assisting, together with the groups selected for the survey, matched arbitrarily for geographical location within the UK; likely establishment of the Force (number of Officers currently employed); likely size of study groups; gender; rank; and length of service.

Some regional variations within particular groups mean that it is not possible to sample one 'pure' group alone i.e. some task or function overlap occurs. Therefore Domestic Violence and/or Family Protection Units (which also deal with Child Abuse and Marital Conflict in the home) are grouped together.

Similarly Firearms, Traffic, Detectives and Territorial Support Groups also include overlap of functions ranging from Special Branch duties and Armed Protection to Public Order.

The only group which contains Civilian as well as Police Personnel occurs in the Scenes Of Crimes category.



In all FIFTEEN groups were sampled for the MAIN U.K. Forces survey, the details of which are shown below in Tables 46a to 46c.

**TABLE 46a: Showing Force Or Constabulary, Code, Group Sampled and Sample Size For Each Group In The MAIN U.K. Forces Survey (N=528).**

CONSTABULARY	GROUP SAMPLED	N	n	N%	nRET	R%
Avon/Somerset Hampshire Merseyside Thames Valley	Domestic Violence and/or	30	11	37a	2	5%
	Child Protection Units	24	8	33a	1	
	(Family, Marital, Child	24	8	33a	1	
	Protection Agents)	20	5	25b	1	
Bedfordshire Cleveland Essex Northern	Female Constables	40	20	50a	4	16%
	(With More Than 1 years	50	27	54a	5	
	Service In That rank)	52	23	44a	4	
		54	15	28b	3	
Cumbria Derbyshire Gloucestershire Royal Ulster	Male Constables	50	30	60a	6	18%
	(With More Than 1 years	50	24	48a	4	
	Service In That Rank)	50	15	30a	3	
		50	26	52a	5	
Devon/Cornwall Humberside	Sergeants	50	25	50a	5	10%
	(Operational Only)	50	29	58a	5	
Dorset Durham	Inspectors	50	16	32a	3	7%
	(Operational Only)	50	21	42a	4	
Kent Lancashire	Chief Inspector to	44	16	36a	3	6%
	Chief Superintendent	50	15	30a	3	
Leicestershire Norfolk	Detective Constables	25	16	64a	3	5%
	(Inc., Specialists)	25	10	40a	2	
North Yorkshire Nottinghamshire	Detective Sergeants	20	7	37a	1	2%
	(Inc., Specialists)	25	7	28b	1	
Staffordshire Tayside	Detective Inspectors	17	5	29b	1	2%
	(Inc., Specialists)	9	5	55a	1	
Surrey Strathclyde	Detective Ch. Inspector	7	1	14b	1	2%
	to Detective Chief Superintendents	20	3	15b	1	

All Percentages Rounded Up To Nearest Decimal Point.

KEY TO TABLES 46a to 46c: (N)= Number of questionnaires sent to 15 groups (population); (n)= Number of questionnaires returned from 15 groups (sample); (N%)= Percentage of sample (or sample (n) divided by population (N) times 100); (nRET)= Percentage of sample returns of groups total (or sample (n) divided by total(n) times 100); (R%)= Total percentage per group; RET%= Overall percentage of usable returns; (a)= Represents 27 force with returns at 30% or more; (b)= Represents low or absent returns for 12 forces.

TABLE 46b: Showing Force Or Constabulary, Code, Group Sampled and Sample Size For Each Group In The MAIN U.K. Forces Survey (N=528).

CONSTABULARY	GROUP SAMPLED	N	n	N%	nRET	R%
Cambridgeshire Northumbria West Yorkshire	Firearms Officers	30	4	13b	1	4%
	(Including Tactical And	25	8	32a	1	
	Armed Response Vehicles)	25	10	40a	2	
Lincolnshire West Mercia Wiltshire	Traffic Officers	50	24	48a	4	10%
	(Inc., Some Specialist	50	15	30a	3	
	And Advisory Posts)	50	17	34a	3	
Gwent Warwickshire Grampian	Scenes Of Crimes	24	4	17b	1	5%
	(Including Civilian And	23	4	17b	1	
	Police Personnel)	16	14	87a	3	
Northamptonshire Sussex West Midlands	Territorial Support Units	30	10	33a	2	5%
	(Inc., Armed Protection	29	6	21b	1	
	And Various Public Order)	30	8	27b	2	
Metropolitan	Miscellaneous Ranks	/	16	3b	3	3%

All Percentages Rounded Up To Nearest Decimal Point.

TABLE 46c: Showing Totals For The Distribution And Returns Of The MAIN U.K. Forces Survey (N=528).

<b>FORCES</b>			
39 (75% of Total UK Forces)			
<b>GROUPS</b>	<b>N</b>	<b>n</b>	<b>RET%</b>
FIFTEEN (15)	1318	528	40%

All Percentages Rounded Up To Nearest Decimal Point.

## RESULTS FOR STUDY THREE.

### 20. MAIN U.K. FORCES SURVEY.

This survey took place after the METPOL survey. The questionnaire items for the MAIN U.K. survey (see Appendix "D") were slightly modified - in that the DOM1 to DOM10 variables were removed and replaced with four questions.

Thus, paragraph 2.2. asked how problems beyond work affected the respondents' home life (HOMEAFF); paragraph 2.3 asked how problems affected the respondents work life (WORKAFF); and paragraph 2.4 asked if the respondents were still experiencing problems'. These variables used a 7 point Likert type scale ranging from, '1=not at all' to '7=very much'.

A further question (paragraph 2.5) asked the respondents' when this problem first occurred and asked for a response on a time scale in YEARS and MONTHS.

Also, the PTSD1 to PTSD17 variables were removed from the MAIN U.K. Forces survey, because of their similarity to the IES indices of intrusion and avoidance.

This section follows the same procedures for analysis and paragraph headings are similar in format as used in the METPOL Survey.

A repeated measures design was attempted using METPOL personnel during this final phase, but the returned questionnaires were sporadic and the 2nd return of the final version of the questionnaire lacked a positive response. Due to the time constraints within the study period it was not possible to repeat a time series survey using the other forces. Nevertheless a repeated measures design would be recommended for future research.

Further, methodological practices dictate that the overall data for the METPOL and MAIN U.K. should be merged into a single study and subsequent analyses. However, there were important reasons for not proceeding with this method. The main reason for not doing so, rested with the client - the ACPO Joint Committee on Organisational Health and Welfare - who looked at the preliminary METPOL results and decided that a separate MAIN U.K. survey was necessary to gather information on other forces outside of the larger Metropolitan Police Service. Also multiple t-tests (shown in Appendix "F") indicate that there were differences between the two studies, METPOL and MAIN U.K. for some of the variables. It was therefore prudent to keep the studies separate.

#### 20.1. DESCRIPTIVE ANALYSES.

Tables 46a to 46c above show the distribution and returns for the MAIN U.K. Forces Survey across Fifteen groups and were distributed using a group sampling technique (described above). This survey was mainly distributed to police officers with the exception of some Scenes Of Crimes officers who were civilian staff.

Forty per cent (N=528) of the respondents returned the completed questionnaires and these will provide useful data for analysis. Future surveys of this type might consider techniques such as, 'sampling proportionate to size' across groups, ranks and grades, and from our research thus far, future surveys would recommend a time series or repeated measures design.

Table 47 shows the group distributions for age, length of service, and length of service in a particular post for the MAIN U.K. Survey.

**TABLE 47: Showing Group Distributions Of Age, Length Of Service And Service In Post For All Departments Sampled In The MAIN U.K. Forces Survey (N=528).**

VALUE	MEAN	STDEV	MIN.	MAX.
AGE	37	8	22	57
SERVICE	14	8	.08	36
IN POST	3	4	.01	27

All Figures Rounded Up.

KEY TO TABLE 47: (MEAN) = Arithmetic average; (STDEV) = Standard deviation away from the mean; (MIN.) = Minimum value in that range; (MAX.) = Maximum value in that range.

Table 48, below, shows the GENDER distributions for this survey. The female gender is reasonably distributed across the ranks and civil staff grades in this survey:

**TABLE 48: Showing Breakdown of Biographical Details For GENDER For All Respondents In The MAIN U.K. Forces Survey (N=528).**

VALUE	FREQ.	(%)
FEMALE	115	29
MALE	373	71
TOTAL	528	100%

All Figures Rounded Up.

KEY TO TABLE 48: (FREQ.) = Frequency of occurrence; (%) = Percentage of occurrence.

Table 49, below, shows the biographical breakdown for the marital status (MARSTAT) variable, of which 72% (N=381) were married.

TABLE 49: Showing Breakdown of Biographical Details For MARITAL STATUS For All Respondents In The MAIN U.K. Forces Survey (N=528).

VALUE	FREQ.	(%)
MARRIED	381	72
RELAT.	49	9
DIVORCED	49	9
WIDOWED	2	1
SINGLE	47	9
TOTAL	528	100%

All Figures Rounded Up.

KEY TO TABLE 49: (FREQ.)= Frequency of occurrence; (%)= Percentage of occurrence; (RELAT.)= Not married but with a steady relationship; (DIVORCED)= Includes separation from spouse.

Table 5 above shows the police ranks and civil staff grades for the three surveys.

#### 20.1.1. Work Problems.

Table 50 below shows the percentage and frequency of responses to work related problems (WORK1 to WORK10) in the MAIN U.K. survey, which was coded as follows; `1=Has not applied'; `2=Has hardly ever applied'; `3=Has sometimes applied'; `4=Has often applied' and `5=Has very often applied'.

The internal consistency for WORK1 to WORK10 items for the MAIN U.K. Force survey is  $\alpha=.79$ .

All the WORK1 to WORK10 items were summed to produce a composite score with a mean of 30.2; a standard deviation of 7.1; a minimum value of 10; and a maximum score of 48 out of a possible 50.

Also, WORK1,3,4,5,7 have been recoded in the METPOL survey to determine which problems may engender trauma directed towards the person (WORKTR). Similarly, WORK2,6,8,9,10 referred to non-trauma problems (NONTRAU), since they represent work stressors affecting the person.

The WORKTR and NONTRAU variables were calculated and recoded as `1 THRU 3=0 and `4,5=1' to partition the scores into two groups - i.e. those who report work problems experienced, `No to sometimes=0' and `Often to very often=1' The percentages and frequencies are reported in Table 51 below.

TABLE 50: Shows Percentage And Frequency Of Responses To Work-Related Problems In The MAIN U.K. Forces Survey (N=528).

CATEGORY AND VALUES	1	2	3	4	5
Work related matters involving violent persons and/or prisoners	11% (60)	8% (41)	36% (189)	29% (155)	16% (83)
Work related matters involving tedious administration/paperwork	2% (9)	4% (22)	16% (85)	34% (179)	44% (233)
Work related accidents involving serious injury and/or damage	25% (134)	22% (116)	26% (137)	16% (83)	11% (58)
Work related sudden deaths and/or death messages to relatives	22% (114)	16% (87)	36% (188)	20% (104)	6% (35)
Work related matters relating to abuse and/or care of children	25% (133)	28% (147)	29% (151)	7% (39)	11% (58)
Work related matters relating to domestic violence	14% (76)	13% (71)	25% (132)	29% (149)	19% (100)
Work related matters involving public order and/or disorder	14% (74)	11% (59)	29% (151)	30% (157)	16% (87)
Work related matters involving Criminal/Civil courts proceedings	7% (38)	11% (56)	27% (143)	32% (167)	23% (124)
Work related matters involving chemical and/or physical hazards	43% (226)	28% (146)	18% (97)	7% (36)	4% (23)
Work related matters involving hazards such as blood/urine etc.	19% (102)	19% (100)	33% (173)	20% (107)	9% (46)

**TABLE 51: Showing The Percentages And Frequencies Of Response For The WORKTR And NONTRAU Variables In The MAIN U.K. Forces Survey (N=528).**

VARIABLE NAMES AND VALUES	WORKTR	NONTRAU
0	21% (113)	8% (41)
1	30% (158)	23% (120)
2	26% (136)	28% (149)
3	13% (69)	27% (142)
4	7% (38)	11% (60)
5	3% (14)	3% (16)

All Percentages Rounded Up.

Thus a combined 10% (N=52) scored 4 and 5 ('has often/very often applied) for all five of the WORKTR related items, whilst a combined 14% (N=76) scored 4 and 5 for all five of the non work trauma (NONTRAU) related items. This again, points to the notion that work trauma related items cannot be differentiated from non work related trauma. What is important, from the above results is that work trauma may be seen to affect home life and vice versa.

Also apparent is the cumulative aspect of work trauma. The current study argues that additional work problems (WORKTR/NONTRAU) likely to be experienced by respondents, should occur in no more than 10% of the sample size (Peters-Bean 1993). In the MAIN U.K. survey, however, an overall 24% (N=128) reported work problems ranging from, 'Has often applied=4' to 'Has very often applied=5', indicating repetitive exposure to work stress and non work trauma.

#### **20.1.2. Domestic Problems.**

The domestic problems variables (DOM1 to DOM10) were not repeated in this survey, as it was felt that there was already sufficient information about the nature of non-work stressors gleaned from the METPOL survey.

Appendix "D" paragraph 2.2. asked, 'Do you think this problem has affected your HOME life' (HOMEAFF) using a 7 point Likert type scale ranging from '1=not at all' to '7=very much'. The scores were calculated and show a mean of 3.85; a standard deviation of 2.12, a minimum value of 0; and a maximum value of 7.

Respondents were also asked, 'Do you think this problem has affected your WORK life' (WORKAFF), using a 7 point Likert type scale, ranging from '1=not at all' to '7=very much', with a mean of 3.16; a standard deviation of 2.00; a minimum value of 0 and a maximum value of 7.

The MAIN U.K. personnel were also asked, 'Are you still experiencing this problem?' (WORKST). A response range was given from '1=not at all' to '7=very much'. The scores were calculated and show a mean of 2.75; a standard deviation of 2.13; a minimum value 0 and a maximum value of 7.

Lastly, the respondents were asked, 'When did this problem first occur' (WORKOC). A response was elicited ranging from 1 month to 11 months duration.

This demonstrates that some of the subjects experienced problems at home or at work, and that they were still experiencing this problem between 1 month and 11 months at the time of the survey.

### **20.1.3. Impact Of Events.**

Unlike the METPOL survey, (see Appendix "A" - which shows interview survey details and Appendix "C" showing case scenarios and the IES referents) the MAIN U.K. Forces survey did not analyse the IES referents themselves.

Responses in this category were roughly the same for their Metropolitan Police counterparts and did not add any further useful information about the nature of traumatic events.

The METPOL survey results (see para. 16.1.3.) detail the coding used for the variable IES, where respondents indicated whether they were exposed to trauma, either, '0=not at all'; '1=once'; '2=twice'; '3=three or more times'.

Out of N=528 returns - 9% (N=50) reported no trauma events; 64% (N=342) reported one event only; 14% (N=74) reported two trauma events; and 12% (N=62) reported three or more trauma events.

With regard to the IEST variable, further questions were put concerning, 'Are you still experiencing this problem?'. The response range for this question used a three point Likert type scale and was calculated as, '0=no'; '1=sometimes'; and '2=often'.

Of the respondents, 59% (N=310) reported 'no' experiences of problems; 25% (N=131) reported experiencing the problems, 'sometimes'; and 16% (N=87) experienced the problem 'often'.

Also if asked, 'When did this problem first occur?' (IESOC) the respondents quoted periods ranging between 1 month and 30 years (mean = 2.5 years; standard deviation = 4.2 years).

These results are roughly similar to the METPOL survey respondents (N=134) who reported periods 2.61 years mean; a standard deviation of 3.89 years; a minimum score of 1 month and a maximum score of 20 years.

Horowitz et al's (1979) own study confirms the time of occurrence of a trauma event to the time of completing the IES battery as 25 weeks mean, with a minimum score of 1 week and maximum score of 136 weeks (i.e. about 2.5 years).



**20.1.4. Intrusion And Avoidance.**

The following variables all showed high internal reliability (Cronbach's  $\alpha$ ) and were used to determine the frequency of intrusion (INTRUDE1 to INTRUDE7;  $\alpha=.89$ ); the intensity of intrusion (INTEX1 to INTEX7;  $\alpha=.87$ ); the frequency of avoidance (AVOID1 to AVOID8;  $\alpha=.80$ ); and the intensity of avoidance (AVEX1 to AVEX8;  $\alpha=.85$ ) for the IES referents in this survey. This questionnaire is based on the 'Revised IES Scale' suggested by Horowitz et al. (1979) and was coded as (0=0) (1=1) (2=3) (3=5).

The above items were then summed to provide composite variables and calculated as INTRUDE (INTRUDE1 to INTRUDE7) with a mean of 13.30; a standard deviation of 9.51; a minimum score of 0 and a maximum score of 35.

The variable INTEX (INTEX1 to INTEX7) revealed a mean of 12.07; a standard deviation of 9.32; a minimum score of 0 and a maximum score of 35.

The variable AVOID (AVOID1 to AVOID8) was computed and showed a mean of 9.90; a standard deviation of 8.94; a minimum score of 0 and a maximum score of 40.

The variable AVEX (AVEX1 to AVEX8) showed a mean of 8.16; a standard deviation of 8.93; a minimum score of 0 and a maximum score of 40.

These composite variables were then used to calculate the intercorrelations between frequency of intrusion (INTRUDE); intensity of intrusion (INTEX); frequency of avoidance (AVOID) and intensity of avoidance (AVEX).

Table 52 shows the intercorrelations for these variables and are reported below:

**TABLE 52: Showing Reported Correlations For Impact Of Events Scale Variables In The MAIN U.K. Forces Survey (N=528).**

	INTRUDE	INTEX	AVOID
INTEX	.8911**		
AVOID	.6582**	.6601**	
AVEX	.6404**	.6977**	.9060**

N of cases: 528 2-tailed Signif: \* - .01 \*\* - .001

KEY TO TABLE 52: (INTRUDE)= Frequency of intrusion scores; (INTEX)= Intensity of intrusion scores; (AVOID)= Frequency of avoidance scores; (AVEX)= Intensity of avoidance scores.

These results show high correlations ranging from  $r=.64$  (AVEX/INTRUDE) to  $r=.90$  (AVEX/AVOID) and are comparable with the METPOL survey (N=134) reported earlier (Table 21).

The above items were also analysed to determine whether there are 'threshold' scores available for respondents who report frequency and intensity of both intrusion (INTRUDE/INTEX) and avoidance (AVOID/AVEX). This involved using a similar procedure described in the INTERVIEW and METPOL surveys for the GHQLIK and GHQSTAN variables.

The variables are analysed in separate groups first, and then subjected to analysis as a whole (i.e. INTRUDE1 to AVEX8).

#### 20.1.5. Thresholds Of Intrusion And Avoidance.

The 'threshold' scores reported below were calculated by showing the group distributions for the 7 items of frequency of intrusion (INTRUDE1 to INTRUDE7); 7 items of intensity of intrusion (INTEX1 to INTEX7); 8 items of frequency of avoidance (AVOID1 to AVOID8) and 8 items of intensity of avoidance (AVEX1 to AVEX8) using a Likert type scale where, '0= does not apply', '1=rarely applies', '3=sometimes applies' and '5=often applies' and so on, up to a maximum score of 35 (7 items) or 40 (8 items).

The procedures for computing Likert type means, standard deviations, minimum and maximum scores have already been described above in paragraph 16.1.5.

The standard scoring method has also been described in paragraph 16.1.5. for the recoded values of, '0=does not apply'/'1=rarely applies' coded as 0; and '3=sometimes applies' and '5=often applies' is coded as 1. The means, standard deviation, minimum and maximum values are shown below in Table 53.

Thereafter a 'threshold' variable was calculated for the INTRUDE and INTEX variables using the coding statement, '0 THRU 3=0' and '4 THRU 7 = 1'. The AVOID and AVEX variables are coded as '0 THRU 3=0' and '4 THRU 8=1'.

Table 53, shows the Likert type scoring (INTLIK); standard type scoring (INTSTAN) and threshold (INTHRESH) means, standard deviations, minimum and maximum ranges for the MAIN U.K. Forces Survey.

Recall, that the rationale for the threshold scoring method is used primarily to highlight 'caseness'- where respondents will endorse items perceived to have more frequency of intrusion (INTHRESH) and the intensity of intrusion (EXTHRESH); frequency of avoidance (AVTHRESH) and intensity of avoidance (AXTHRESH).

The means, standard deviations, minimum and maximum scores for these variables are shown in separate tables below, followed by tables calculating the threshold cut-off points at 3 to 6 for INTHRESH and EXTHRESH and a cut-off of 3 - 7 points for AVTHRESH and AXTHRESH.

**TABLE 53: Showing Group Distributions For INTLIK, INTSTAN And INTHRESH For Frequency Of Intrusion Variables In The MAIN U.K. Forces Survey (N=528).**

VALUE	MEAN	STDEV	MIN.	MAX.
INTLIK	13.30	9.52	0	35
INTSTAN	3.05	2.27	0	7
INTHRESH	.44	.50	0	1

All Figures Rounded Up To Nearest Decimal Point.

Table 54, below shows the threshold scores for INTHRESH variables for 3 to 6 items endorsed on the IES frequency of intrusion questionnaire:

**TABLE 54: Showing Reported Frequency And Percentage Of Subjects Who Score At Or Above The Indicated INTHRESH Level For Frequency Of Intrusion Variables In The MAIN U.K. Forces Survey (N=528).**

	TOTAL INTHRESH SCORES FOR 3 TO 6 ITEMS							
LEVEL	3		4		5		6	
GROUP	%	F	%	F	%	F	%	F
0	56	295	67	355	85	446	92	486
1	44	233	33	173	15	82	8	42

All Percentages Rounded Up.

KEY TO TABLE 54: (LEVEL)= Threshold cut off points for 3 up to 6 items; (%)= Percentage of respondents; (F)= Frequency of respondents; (0)= Group membership below threshold score; (1)= Group membership above threshold score.

The above table reveals that 44% (N=233) of the respondents reported up to 3 items of intrusive images and thoughts for the INTRUDE variable. If frequency of intrusion may be thought to be cumulative, the table also shows that only 8% (N=42) of the respondents endorsed 8 or more items of intrusion - i.e. the more items endorsed, the more likely it is that there are fewer respondents.

Using the above procedures, the following tables report the Likert type scoring method (EXLIK) and standard scoring method (EXSTAN) for the intensity of intrusion (INTEX1 TO INTEX7) variables and the threshold scoring method (EXTHRESH) for those variables based on EXSTAN.

Also shown below are the Likert, and standard scoring method for frequency of avoidance (AVLIK and AVSTAN); intensity of avoidance (AXLIK and AXSTAN) and threshold scores for frequency of avoidance (AVTHRESH) and the intensity of avoidance (AXTHRESH):

**TABLE 55: Showing Group Distributions For EXLIK, EXSTAN and EXTHRESH For Intensity Of Intrusion Variables In The MAIN U.K. Survey (N=528).**

VALUE	MEAN	STDEV	MIN.	MAX.
EXLIK	12.07	9.32	0	35
EXSTAN	2.75	2.37	0	7
EXTHRESH	.38	.49	0	1

All Figures Rounded Up.

KEY TO TABLE 55: (EXLIK)= Intensity of intrusion items Likert scoring; (EXSTAN)= Intensity of intrusion items standard scoring; (EXTHRESH)= Intensity of intrusion items threshold scoring; (MEAN)= Arithmetic average; (STDEV)= Standard deviation away from the mean; (MIN.)= Minimum value in that range; (MAX.)= Maximum value in that range.

**TABLE 56: Showing Reported Frequency And Percentage Of Subjects Who Score At Or Above The Indicated EXTHRESH Level For Intensity Of Intrusion Variables In The MAIN U.K. Survey (N=528).**

	TOTAL EXTHRESH SCORES FOR 3 TO 6 ITEMS							
LEVEL	3		4		5		6	
GROUP	%	F	%	F	%	F	%	F
0	62	327	71	377	83	440	91	483
1	38	201	29	151	17	88	9	45

All Percentages Rounded Up.

KEY TO TABLE 56: (LEVEL)= Threshold cut off points for 3 up to 6 items; (%)= Percentage of respondents; (F)= Frequency of respondents; (0)= Group membership below threshold score; (1)= Group membership above threshold score.

Thus, it can be seen that 38% (N=201) of the respondents scored at least three items for intensity of intrusion. Again, in accordance with the notion that intrusive thoughts and images may be cumulative, there are fewer respondents endorsing items of 8 or more for intensity of intrusion (9% or N=45).

Table 57 below, show the means, standard deviations, minimum and maximum scores for the frequency of avoidance variables, AVLIK, AVSTAN and AVTHRESH. Table 58 shows the threshold cut off points between 3 and 7 items for the AVTHRESH variable:

**TABLE 57: Showing Group Distributions For AVLIK, AVSTAN And AVTHRESH For Frequency Of Avoidance Variables In The MAIN U.K. Forces Survey (N=528).**

VALUE	MEAN	STDEV	MIN.	MAX.
AVLIK	9.90	8.94	0	40
AVSTAN	2.21	2.15	0	8
AVTHRESH	.27	.44	0	1

All Figures Rounded Up.

KEY TO TABLE 57: (AVLIK)= Frequency of avoidance items Likert scoring; (AVSTAN)= Frequency of avoidance items standard scoring; (AVTHRESH)= Frequency of avoidance items threshold scoring; (MEAN)= Arithmetic average; (STDEV)= Standard deviation away from the mean; (MIN.)= Minimum value in that range; (MAX.)= Maximum value in that range.

**TABLE 58: Showing Reported Frequency And Percentage Of Subjects Who Score At Or Above The Indicated AVTHRESH Level For Frequency Of Avoidance Variables In The MAIN U.K. Forces Survey (N=528).**

		TOTAL AVTHRESH SCORES FOR 3 TO 7 ITEMS									
LEVEL	3		4		5		6		7		
GROUP	%	F	%	F	%	F	%	F	%	F	
0	73	385	84	444	90	477	96	507	98	518	
1	27	143	16	84	10	51	4	21	2	10	

All Percentages Rounded Up.

KEY TO TABLE 58: (LEVEL)= Threshold cut off points for 3 up to 7 items; (%)= Percentage of respondents; (F)= Frequency of respondents; (0)= Group membership below threshold score; (1)= Group membership above threshold score.

From the above Table 58, the threshold scores for 3 items of frequency of avoidance was endorsed by 27% (N=143) of the respondents. Similarly, there were fewer respondents (2% or N=10) who endorsed 7 or more items of frequency of avoidance.

Tables 59 and 60 below show the means, standard deviations, minimum and maximum ranges and the threshold values for the intensity of avoidance variables, AXLIK; AXSTAN and AXTHRESH:

**TABLE 59: Showing Group Distributions For AXLIK, AXSTAN And AXTHRESH For Intensity Of Avoidance Variables In The MAIN U.K. Forces Survey (N=528).**

VALUE	MEAN	STDEV	MIN.	MAX.
AXLIK	8.61	8.93	0	40
AXSTAN	1.87	2.27	0	8
AXTHRESH	.24	.43	0	1

All Figures Rounded Up.

KEY TO TABLE 59: (AXLIK)= Intensity of avoidance items Likert scoring; (AXSTAN)= Intensity of avoidance items standard scoring; (AXTHRESH)= Intensity of avoidance items threshold scoring; (MEAN)= Arithmetic average; (STDEV)= Standard deviation away from the mean; (MIN.)= Minimum value in that range; (MAX.)= Maximum value in that range.

**TABLE 60: Showing Reported Frequency And Percentage Of Subjects Who Score At Or Above The Indicated AXTHRESH Level For Intensity Of Avoidance Variables In The MAIN U.K. Forces Survey (N=528).**

		TOTAL AXTHRESH SCORES FOR 3 TO 7 ITEMS									
LEVEL	3		4		5		6		7		
GROUP	%	F	%	F	%	F	%	F	%	F	
0	76	402	84	444	90	476	95	499	98	517	
1	24	126	16	84	10	52	5	29	2	11	

All Percentages Rounded Up.

KEY TO TABLE 60: (LEVEL)= Threshold cut off points for 3 up to 7 items; (%)= Percentage of respondents; (F)= Frequency of respondents; (0)= Group membership below threshold score; (1)= Group membership above threshold score.

Again, the MAIN U.K. Forces survey revealed that 24% (N=126) of the respondents endorsed 3 items of intensity of avoidance. Where intensity of intrusion is thought to be cumulative, some 2% (N=11) of the respondents endorsed 8 or more items of intensity of avoidance - i.e. indicating that the higher items endorsed, the more likely it is that there will be fewer respondents.

#### 20.1.6. Frequency Of Intrusion And Avoidance.

The following procedure totalled individual scores within the variables, INTRUDE1 to INTRUDE7 and AVOID1 to AVOID8 (frequency of intrusion and avoidance variables), and is used to calculate means, standard deviations, minimum and maximum ranges where, `0=does not apply'; `1=rarely applies'; `3=sometimes applies' and `5=often applies'. This is based on the previously reported paper by Neal et al. (1994).

A composite score for these variables (IESLIK), using the Likert type procedure described above was calculated with a mean of 23.18; a standard deviation of 16.81; a minimum score of 0; and a maximum score of 75.

A composite score was also calculated (IESTAN), using the standard scoring system with a mean of 26.68; a standard deviation of 18.16; a minimum score of 0 and a maximum score of 70 out of 75.

A composite score was calculated for the IESTHRESH variable, where '0,1=0 and '3,5=1' with a mean of .34; a standard deviation of .47; a minimum range of 0 and a maximum range of 1.

Thereafter threshold scores (IESTHRESH) are calculated on the basis of endorsement of all frequency of intrusion and avoidance items within the 15 variables up to a maximum score of 75, with a threshold score ranging from 34 to 38 adopting a procedure suggested by Neal et al. (1994).

The IESTHRESH scores were recoded as, (0 THRU 34=1) and (35 THRU 75=1) to differentiate between two groups of officers who scored above and below the indicated threshold level from 34 items and so on. These results are shown below in Table 61:

**TABLE 61: Showing Reported Frequency And Percentage Of Subjects Who Score At Or Above The Indicated IESTHRESH Level For Intensity Of Intrusion And Avoidance Variables In The MAIN U.K. Forces Survey (N=528) .**

	THRESHOLD CUT OFF POINTS									
	34		35		36		37		38	
GROUP	%	F	%	F	%	F	%	F	%	F
0	66	349	68	357	69	365	71	374	72	380
1	34	179	32	171	31	163	29	154	28	148

All Percentages Rounded Up To Nearest Decimal Point.

Of note here is that some 34% (N=179) of the MAIN U.K. respondents (METPOL Survey 40% or N=53) report above threshold scores of 34 or more items for frequency of intrusion and avoidance. Also at the other end of the table, some 28% (N=148) of the MAIN U.K. respondents (METPOL Survey 30% or N=40) endorsed 38 or more items, reflecting the notion that there is perhaps a cumulative impact on a significant number of the MAIN U.K. subjects - i.e. the higher the endorsement of the items, the more likely it is that there will be fewer respondents.

#### 20.1.7. Primary And Secondary Appraisal.

The 8 item bank for primary appraisal showed high internal reliability (PRIME1 to PRIME8; Cronbach's  $\alpha$ =.91) and 6 item bank for secondary appraisal (SECOND1 to SECOND6; Cronbach's  $\alpha$ =.65) were next taken into consideration.

Table 62, below, show the intercorrelations between PRIME1 to PRIME8 with SECOND1 to SECOND6 for the MAIN U.K. Survey:

**TABLE 62: Showing Reported Correlations For The PRIME1 To PRIME8 WITH SECOND1 To SECOND6 Variables In The MAIN U.K. Forces Survey (N=528).**

	SECOND1	SECOND2	SECOND3	SECOND4	SECOND5	SECOND6
<b>PRIME1</b>	.1616**	.1632**	.1146	.2390**	.3239**	.2953**
<b>PRIME2</b>	.2503**	.1398*	.1509**	.2599**	.2703**	.3310**
<b>PRIME3</b>	.1651**	.1267*	.1757**	.1992**	.3099**	.2877**
<b>PRIME4</b>	.2146**	.1840**	.1709**	.2542**	.3249**	.3750**
<b>PRIME5</b>	.1814*	.1408*	.2108**	.2387**	.3306**	.3305**
<b>PRIME6</b>	.1964**	.1247*	.1611**	.2495**	.1813**	.2470**
<b>PRIME7</b>	.1415*	.1658**	.1829**	.2380**	.2711**	.2982**
<b>PRIME8</b>	.2289**	.1380*	.1964**	.3142**	.2756**	.3315**

N of cases: 485 2-tailed Signif: \* - .01 \*\* - .001

NOTE: For Key to Table 62 please refer to Table 32 pp 115.

The items for secondary appraisal show low but significant intercorrelations at the  $p < .001$  level (2-tailed) for N=528 cases.

Recall that the researcher was interested in two of the secondary appraisal items which, it was argued, might interfere with effective coping. For SECOND5 'One where work bureaucracy made it difficult to deal with' the intercorrelations ranged from  $r=.18$  to  $r=.32$ . And for SECOND6, 'One where, if I had dealt with it in the way I wanted, it would have made things difficult for me' show low but significant intercorrelations ranging from  $r=.24$  and  $r=.37$  at the  $p < .001$  level.

The above Table 62 results are linked to Table 33 above, which shows a comparison between the METPOL survey and the MAIN U.K. Forces survey for the variable SECEX (which was designed to elicit a response to which particular secondary appraisal item may have had an influence subsequent coping strategies). This additional item included in both METPOL and MAIN U.K. questionnaires tested whether a choice of secondary appraisal resources had any influence on coping in relation to possible interference from the police bureaucracy.

In particular, (para. 16.1.9.) of this dissertation argued that in Table 33, Rank 1 (SECOND2), 'One that I must accept or that I just got used to'; Rank 2, (SECOND5) 'One where work bureaucracy made it difficult to deal with' and Rank 3, (SECOND3) 'One where I needed to know more information before I could act' - all pointed to evidence that the police culture might have influence on coping and may even possibly interfere with the secondary appraisal strategy. Thus, Table 62 above provides further evidence (albeit weakly) that SECOND5 and SECOND6 items have some affect on coping for police officers and civil staff.

#### 20.1.8. General Mental Well-Being.

These measures used the GHQ1 to GHQ12 variables assessing context free mental health (Goldberg 1972) and 6 items of neuroticism (N1 to N6, reflecting negative affectivity) suggested by Eysenck and Eysenck (1964). The internal reliability for these items are GHQ1 to GHQ12, Cronbach's  $\alpha=.89$  and N1 to N6, Cronbach's  $\alpha=.74$ .



The composite score for GHQ1 to GHQ12 (GHQLIK) was recoded as '0 = Not at all; 1 = Same as usual; 2 = Less than usual; and 3 = Much less than usual' with a mean of 11.87; a standard deviation of 5.71; a minimum score of 0 and a maximum score of 36.

The composite score for the N1 to N6 (NAFF) was calculated with a mean of 11.92; a standard deviation of 3.53; a minimum value of 6; and a maximum score of 21 out of a possible 24.

Following the procedure outlined in the INTERVIEW and METPOL surveys above, the composite Likert type score (GHQLIK); standard score (GHQSTAN) and threshold scores (GHQTHRESH) were calculated for the MAIN U.K. survey and reproduced in Table 63 below:

**TABLE 63: Showing Group Distributions For Likert-type, Standard And Threshold Scores For GHQ Variables In The MAIN U.K. Survey (N=528).**

VALUE	MEAN	STDEV	MIN.	MAX.
GHQLIK	11.87	5.71	0	31
GHQSTAN	2.52	3.15	0	12
GHQTHRESH	.35	.48	0	1

Thereafter threshold scores were computed and are reproduced below as Table 64. Again, following the procedure outlined in the Interview survey, the cut-off points are set at 3 to 11 items of the GHQ questionnaire.

For the METPOL study some 31% (N=41) of the respondents endorsed 3 or more items out of the 12 for context free mental health. This is contrasted with the MAIN U.K. Forces survey where 30% (N=161) respondents endorsed 3 or more items of context free mental health.

Similarly of the METPOL respondents 2% (N=2) endorsed 11 or more items of the GHQ, compared with the MAIN U.K. survey where 1% (N=6) endorsed 11 or more items of the GHQ.

TABLE 64: Showing Reported Percentage And Frequency Of Subjects Who Score At Or Above The Indicated GHQ Threshold Scores In The MAIN U.K. Forces Survey (N=528).

TOTAL GHQ SCORES FOR 3 TO 11 ITEMS.																		
	3		4		5		6		7		8		9		10		11	
GROUP	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F
0	69	363	76	400	81	426	86	456	89	470	92	487	94	498	97	510	98	518
1	30	161	23	124	18	98	13	68	10	54	7	37	5	26	2	14	1	6
MISSING	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4

KEY TO TABLE 64: (0)= Group membership below threshold score; (1)= Group membership above threshold score; (MISSING)= Denotes missing cases.

**20.1.9. Cybernetic Coping Scale.**

The 40 item Cybernetic Coping Scale (Edwards and Baglioni 1993; CCS) measures the discrepancy between and individual's perceived state and desired state, in relation to stressful encounters. The presence of this discrepancy must be seen as important to the individual.

The composite score for the CCS1 to CCS24 items (Cronbach's  $\alpha = .86$ ) were calculated as, '1=I do not use this technique' to 5=I always use this technique' and show high internal reliability (Cronbach's alpha;  $\alpha = .86$ ), with a mean of 64.56; a standard deviation of 12.35; a minimum value of 24 and a maximum value of 105 out of 120. These 24 items were presented at random within the item bank to reduce order effects.

Following the procedure suggested by Edwards and Baglioni (1993) the above six forms of coping were computed as follows: CHANGE (CCS1,7,13,19); ACCOM (CCS2,8,14,20); DEVAL (CCS3,9,15,21); AVOID (CCS4,10,16,22); REDUCE (CCS5,11,17,23); and SUPPORT (CCS6,12,18,24).

The individual variables were summed and the measure of internal consistency (Cronbach's  $\alpha$ ), means, and standard deviations reported for each in Table 65 below:

**TABLE 65: Showing The Means, Standard Deviations and Reliability Scores (Cronbach's  $\alpha$ ) For The Revised Cybernetic Coping Scale (Six Forms Of Coping) In The MAIN U.K. Survey (N=528).**

VARIABLES	MAIN U.K. SURVEY		
	M	SD	$\alpha$
CHANGE	11.77	3.37	.810
ACCOM	9.94	2.82	.723
DEVAL	9.42	3.61	.880
AVOID	8.69	3.43	.828
REDUCE	12.60	3.27	.740
SUPPORT	12.16	3.79	.850

KEY TO TABLE 65: (MAIN U.K.)= MAIN U.K. Forces Survey; (M)= Means; (SD)= Standard deviation away from the mean; ( $\alpha$ )= Cronbach's alpha co-efficient; (CHANGE)= 'changing the situation'; (ACCOM)= 'adjusting desires to meet the situation'; (DEVAL)= 'reduce the importance associated with the discrepancy'; (AVOID)= 'direct attention away from the situation'; (REDUCE)= 'improve well-being directly'; (SUPPORT)= 'seeking social support'.

Table 66 below shows the reported intercorrelations between the six forms of coping:

**TABLE 66: Showing The Reported Intercorrelations Between The Six Forms Of Coping In The MAIN U.K. Forces Survey (N=528).**

	CHANGE	ACCOM	DEVAL	AVOID	REDUCE
ACCOM	.2991**				
DEVAL	.1610**	.4699**			
AVOID	-.0218	.2732**	.5240**		
REDUCE	.3100**	.2797**	.2213**	.1608**	
SUPPORT	.3265**	.1865**	.0856	-.0092	.4793**

N of cases: 508 2-tailed Signif: \* - .01 \*\* - .001

The negative correlations refer to 'avoiding the situation' and changing desires to meet expectations' (AVOID/CHANGE  $r = -.02$ ) and 'Seeking social support' correlated with 'avoiding the situation' - negatively correlated at  $r = -.01$ . These results are not significant.

However, the highest correlation shown is for avoidance and devaluation (AVOID/DEVAL;  $r = .52$ ) as coping strategies, whilst the lowest significant correlation is for 'symptom reduction' and 'avoiding the situation' (REDUCE/AVOID;  $r = .16$ ). The remainder correlations marked '\*\*' are significant at the  $p < .001$  level (2-tailed).

#### 20.1.10. World Assumptions Scale.

The WAS1 to WAS32 variables, based on eight dimensions of the World Assumptions Scale (WAS; Janoff-Bulman 1989) on a 6-point Likert-type scale where '1' = Strongly agree to '6' = Strongly disagree.

WAS 2,8,12,18 and 31 are reverse scored and the internal consistency for the WAS1 TO WAS32 variables (WASALL) are reported as  $\alpha = .82$ .; mean = 97.86; standard deviation = 14.67; minimum score = 55; maximum score 157.

The following items were then grouped, calculated, and the Cronbach's  $\alpha$ , means, standard deviations, minimum and maximum ranges reported as follows:

WAS5,9,25,30 (BENWOR,  $\alpha = .82$ ; M=11.51; SD=3.64; Min.=4; Max.=24).  
 WAS2,4,12,26 (BENPEP,  $\alpha = .76$ ; M=10.82; SD=3.31; Min.=4; Max.=24).  
 WAS1,7,14,19 (JUSTICE,  $\alpha = .68$ ; M=16.30; SD=3.45; Min.=6; Max.=24).  
 WAS11,20,22,29 (CONTROL,  $\alpha = .75$ ; M=14.46; SD=3.34; Min.=4 Max.=24).  
 WAS3,6,15,24 (RANDOM,  $\alpha = .60$ ; M=12.48; SD=3.51; Min.=4; Max.=24)  
 WAS8,18,28,31 (WORTH,  $\alpha = .76$ ; M=9.36; SD=4.03; Min.=4; Max.=24).  
 WAS13,17,23,27 (SELFCON,  $\alpha = .66$ ; M=10.38; SD=2.64; Min.=4; Max.=20).  
 WAS10,16,21,32 (LUCK,  $\alpha = .81$ ; M=12.62; SD=3.93; Min.=4; Max.=24).

Table 67 shows the intercorrelations between the eight dimensions of the world assumptions scale:

TABLE 67: Showing Reported Intercorrelations For The World Assumptions Scale Variables In The Main U.K. Forces Survey (N=528).

	JUSTICE	BENPEP	RANDOM	BENWOR	WORTH	SELECON	CONTROL
BENPEP	.0609						
RANDOM	-.0248	.0128					
BENWOR	.1886**	.7323**	.0576				
WORTH	.0499	.2216**	-.0469	.2573**			
SELECON	.1278*	.1965**	.1259*	.2034**	.3496**		
CONTROL	.5060**	.0427	-.1112	.1156*	.1105	.3436**	
LUCK	.1081	.2507**	.1033	.3003**	.2335**	.3156**	.1003

N of cases: 506 2-tailed Signif: \* - .01 \*\* - .001

KEY TO TABLE 67: (JUSTICE)= 'Assumptions associated with a belief in justice'; (BENPEP)= 'Benevolence of the world'; (RANDOM)= 'Beliefs associated with randomness of events'; (BENWOR)= 'Beliefs associated with benevolence of the world'; (WORTH)= 'Beliefs associated with self-worth'; (SELECON)= 'Beliefs associated with self-controllability'; (CONTROL)= 'Beliefs associated with controllability'; (LUCK)= 'Beliefs associated with luck.'

There are negative (non-significant) correlations for 'randomness of events' and a 'belief in a just world' (RANDOM/JUSTICE  $r = -.02$ ); 'self worth' and 'randomness of events' (WORTH/RANDOM  $r = -.04$ ); and CONTROL/RANDOM correlated at  $r = -.11$ .

The remaining significant correlations range between  $r = .11$  for CONTROL/BENWOR and  $r = .12$  for SELECON/JUSTICE and SELECON/RANDOM at the  $p < .01$  level (2-tailed). Medium correlations also ranging from BENWOR/JUSTICE ( $r = .18$ ) and CONTROL/JUSTICE ( $r = .50$ ) at the  $p < .001$  level.

#### 20.1.11. Best Practice In Interventions.

Table 45 above shows a comparison between the METPOL and MAIN U.K. surveys for the 'best practice' in intervention variables (BEST1 to BEST11). It is not proposed to repeat the earlier findings in this section.

The MAIN U.K. respondents did not add anything new to the 'free text' category for BEST11 - that is, the subjects reported similar themes relating to Rank 11 - with about 12% (N=64) of the MAIN U.K. subjects ticking the, 'YES' response.

As reported earlier (para. 16.1.15.), there were general comments about supervisors' attitudes to work stress and trauma - and in the main these were not complimentary. Similarly, the MAIN U.K. respondents reported comments about the need to avoid treating officers with stress and trauma as 'malingerers' or requiring different treatment from officers who suffered physical injuries as against psychic ones.

There was a general reported need to educate senior personnel and encourage them to be empathic to the needs of junior offices who have experienced stress and trauma.

20.1.12. **Comparisons Of IES, INTRUDE, INTEX, AVOID, AVEX, NAFF, And RANDOM Variables Across Frequency Of Traumatic Experience.**

The relationship between multiple exposure to trauma and the impact that it has on police officers, was tested using post-hoc comparisons (one-way analysis of variance; Tukey-HSD procedure - see Appendix "F" for MAIN U.K. post-hoc results) for the IES variable. The IES variable reflects reports of experiencing trauma either, '0=None'; '1=Once'; '2=Twice'; or '3=Three or more' times.

This was compared with Impact of Event scales which are differentiated into the frequency of intrusion (INTRUDE); intensity of intrusion (INTEX); frequency of avoidance (AVOID); and the intensity of avoidance (AVEX) variables, used in the Horowitz et al. (1979) paper.

Similar post-hoc comparisons were tested for their relationship between the IES variable and negative affectivity items (NAFF) suggested by Eysenck and Eysenck (1964) and the eight dimensions of the World Assumption Scale (WAS; Janoff-Bulman 1989), of which only the RANDOM ('beliefs associated with the randomness of events') variable was shown to be significant. All these results are shown below.

TABLES 68 to 73, for example, shows the results for the one way analyses of variance using the multiple range test (TUKEY-HSD procedure):

**TABLE 68: Showing A One-Way Analysis Of Variance For The Variable IES With The INTRUDE Variable In The MAIN U.K. Survey (N=528).**

SOURCE	DF	SS	MS	F.Ratio	F. Prob
BETWEEN	3	8648.476	2882.82	38.6693	.000
WITHIN	524	39064.643	74.55		
TOTAL	527	47713.119			
GROUPS	COUNT	MEAN	SD	SE	95% Conf. Interval For Mean
GROUP0	50	1.26	4.58	.65	-.04 to 2.56
GROUP1	342	13.97	9.08	.49	13.00 to 14.93
GROUP2	74	14.89	8.71	1.01	12.87 to 16.91
GROUP3	62	17.43	8.45	1.07	15.29 to 19.58
TOTAL	528	13.30	9.51	.41	12.49 to 14.11

KEY TO TABLES 68 to 73: (SOURCE)= Group Membership; (BETWEEN)= Between Groups; (WITHIN)= Within Groups; (DF)= Degrees of freedom; (SS)= Sum of squares; (MS)= Mean Squares; (COUNT)= No of Respondents in group; (MEAN)= Arithmetic mean; (SD)= Standard Deviation; (SE)= Standard Error; (IESTOTAL)= Sum of the frequency and intensity of intrusion and avoidance scores; (IES)= Multiple exposure to trauma; (INTRUDE)= Frequency of intrusion; (INTEX)= Intensity of intrusion; (AVOID)= Frequency of avoidance; (AVEX)= Intensity of avoidance; (NAFF)= Negative affectivity; (RANDOM)= 'A belief associated with the randomness of events'; (GROUP0)= 'No exposure to trauma'; (GROUP1)= 'One exposure to trauma'; (GROUP2)= 'Two exposures to trauma'; (GROUP3)= 'Exposure to trauma three or more times'.

Post-hoc comparisons (TUKEY-HSD procedure) indicate that the multiple exposure to trauma for frequency of intrusion (INTRUDE) revealed significant differences between any exposure to trauma for the IES Groups 1,2,3 (exposure to trauma, 'once', 'twice' or 'three or more times') and Group 0 (no exposure to trauma). There were also significant differences between the IES Group 3 (exposure to trauma 'three or more times') and Group 1 (single exposure to trauma) all at the  $p < .05$  level.

For Table 69, reproduced below, the IES multiple exposure groups were tested for comparisons with the intensity of intrusion variable (INTEX):

**TABLE 69: Showing A One-Way Analysis Of Variance For The Variable IES With The INTEX Variable In The MAIN U.K. Survey (N=528).**

SOURCE	DF	SS	MS	F.Ratio	F. Prob
BETWEEN	3	7256.712	2418.90	32.89	.000
WITHIN	524	38533.415	73.54		
TOTAL	527	45790.119			
GROUPS	COUNT	MEAN	SD	SE	95% Conf. Interval For Mean
GROUP0	50	1.00	3.79	.54	-.08 to 2.08
GROUP1	342	12.66	9.05	.49	11.69 to 13.62
GROUP2	74	13.92	8.82	1.02	11.87 to 15.96
GROUP3	62	15.56	8.34	1.06	13.44 to 17.68
TOTAL	528	12.07	9.32	.40	11.28 to 12.87

Post-hoc comparisons (TUKEY-HSD procedure) indicated that the multiple exposure to trauma for the intensity of intrusion variable (INTEX) showed significant differences between any exposure to trauma for the IES Groups 1,2,3 (exposure to trauma, 'once', 'twice' or 'three or more times') and Group 0 ('none').

Table 70 below, shows the comparisons between multiple exposure to trauma (IES) and frequency of avoidance (AVOID):

**TABLE 70: Showing A One-Way Analysis Of Variance For The Variable IES With The AVOID Variable In The MAIN U.K. Survey (N=528).**

SOURCE	DF	SS	MS	F.Ratio	F. Prob
BETWEEN	3	4699.840	1566.61	21.92	.000
WITHIN	524	37452.401	71.47		
TOTAL	527	42152.242			
GROUPS	COUNT	MEAN	SD	SE	95% Conf. Interval For Mean
GROUP0	50	.90	2.87	.46	.08 to 1.72
GROUP1	342	10.69	8.78	.47	9.76 to 11.63
GROUP2	74	9.94	9.09	1.06	7.84 to 12.05
GROUP3	62	12.55	8.79	1.12	10.31 to 14.78
TOTAL	528	9.88	8.94	.39	9.11 to 10.64

Post-hoc comparisons (TUKEY-HSD procedure) indicated that the multiple exposure to trauma for frequency of avoidance (AVOID) showed significant differences between any exposure to trauma for the IES Groups 1,2,3 (exposure to trauma, 'once', 'twice' or 'three or more times') and Group 0 ('none') at the  $p < .05$  level.

Table 71 shows the post-hoc comparisons between multiple exposure to trauma groups (IES) and intensity of avoidance (AVEX):

**TABLE 71: Showing A One-Way Analysis Of Variance For The Variable IES With The AVEX Variable In The MAIN U.K. Survey (N=528).**

SOURCE	DF	SS	MS	F.Ratio	F. Prob
BETWEEN	3	3872.224	1290.74	17.74	.000
WITHIN	524	38127.182	72.76		
TOTAL	527	41999.407			
GROUPS	COUNT	MEAN	SD	SE	95% Conf. Interval For Mean
GROUP0	50	.62	2.03	.28	.04 to 1.19
GROUP1	342	9.14	8.83	.48	8.20 to 10.08
GROUP2	74	9.03	8.69	1.01	7.01 to 11.04
GROUP3	62	11.64	9.78	1.24	9.16 to 14.13
TOTAL	528	8.61	8.93	.38	7.85 to 9.37

Post-hoc comparisons (TUKEY-HSD procedure) indicated that the multiple exposure to trauma for intensity of avoidance (AVEX) showed significant differences between any exposure to trauma for the IES Groups 1,2,3 (exposure to trauma, 'once', 'twice' or 'three or more times') and Group 0 ('none') at the  $p < .05$  level.



Table 72 below shows the post-hoc comparisons, multiple range test (TUKEY-HSD procedure) for the variable IES with negative affectivity (NAFF):

**TABLE 72: Showing A One-Way Analysis Of Variance For The Variable IES With The NAFF Variable In The MAIN U.K. Survey (N=528).**

SOURCE	DF	SS	MS	F.Ratio	F. Prob
BETWEEN	3	249.141	83.05	6.88	.000
WITHIN	523	6314.669	12.07		
TOTAL	526	6563.810			
GROUPS	COUNT	MEAN	SD	SE	95% Conf. Interval For Mean
GROUP0	49	10.28	3.13	.45	9.39 to 11.18
GROUP1	342	11.82	3.53	.19	11.45 to 12.19
GROUP2	74	12.43	3.23	.37	11.68 to 13.18
GROUP3	62	13.16	3.70	.47	12.22 to 14.10
TOTAL	527	11.92	3.53	.15	11.62 to 12.22

Post-hoc comparisons (TUKEY-HSD procedure) indicated that the multiple exposure to trauma (IES) with negative affectivity (NAFF) showed significant differences between any exposure to trauma for the IES Groups 1,2,3 (exposure to trauma, 'once', 'twice' or 'three or more times') and Group 0 ('none').

Similarly, there were significant differences between the IES Group 3 (exposure to trauma 'three or more times') and Group 1 (single exposure to trauma) all at the  $p < .05$  level.

Table 73 below, shows the post-hoc comparisons, multiple range test (TUKEY-HSD procedure) for the variable IES with the World Assumption Scale variable RANDOM:

**TABLE 73: Showing A One-Way Analysis Of Variance For The Variable IES With The RANDOM Variable In The MAIN U.K. Survey (N=528).**

SOURCE	DF	SS	MS	F.Ratio	F. Prob
BETWEEN	3	109.423	36.74	2.99	.000
WITHIN	519	6335.116	12.21		
TOTAL	522	6444.539			
GROUPS	COUNT	MEAN	SD	SE	95% Conf. Interval For Mean
GROUP0	49	13.06	3.83	.55	11.96 to 14.16
GROUP1	338	12.66	3.61	.19	12.27 to 13.04
GROUP2	74	12.20	3.06	.36	11.49 to 12.91
GROUP3	62	11.37	3.03	.38	10.60 to 12.14
TOTAL	523	12.48	3.51	.15	12.18 to 12.78

Post-hoc comparisons (TUKEY-HSD procedure) indicated that the multiple exposure to trauma variable (IES) with the World Assumption variable RANDOM showed significant differences between exposure to trauma for the Groups 1 (exposure to trauma, 'once') and Group 3 ('three or more' times) at the  $p < .05$  level.

## DISCUSSION OF SURVEY THREE.

### 21. Qualitative Data.

The MAIN U.K. Forces survey broadly supports the earlier findings of the METPOL Survey, in that several broad themes have emerged.

Work related stressors, which involve matters relating to tedious administration duties, matters involving criminal and civil courts proceedings and matters involving violent persons and prisoners were also reported by the MAIN U.K. respondents.

Domestic problems have an impact in both studies. The METPOL survey reveals demands that work makes on private life, matters involving partners and significant others and stress related incidents from work.

For the MAIN U.K. respondents, there was evidence that problems had some impact on work life (WORKAFF; mean 3.16; standard deviation 2.0) and domestic life (HOMEAFF; mean 3.85; standard deviation 2.0) on scales ranging from '1=not at all' to '7=very much'.

Also, when asked whether the respondents had experienced a trauma event either 'three or more times' - some 12% (N=62) of the MAIN U.K. personnel reported multiple exposure, compared with 11% (N=15) of the METPOL respondents. This would indicate that a smaller proportion of Officers' would seem to be exposed to trauma events, 'three or more times' during their service.

With reference to the IES referents (the trauma event), the MAIN U.K. data was not fully analysed, as it was broadly similar to the reports by the METPOL respondents - and comprised of personal injury or illness; violent attacks on individuals or their colleagues; and dealing with sudden death, either by violence or as a result of traffic accidents.

The MAIN U.K. officers also reported similar trauma experiences to the METPOL group - relating solely to organisational issues, i.e. internal demands made on them as a consequence of their work in their respective Forces: There were reports of insensitive senior management; poor decision making; lack of communication; bullying; and in some cases sexual assault by colleagues, or sexual harassment at the instigation of colleagues (see also Brown and Campbell 1990).

Future studies of this nature should consider looking at the nature of traumatic experience for police and begin to differentiate more closely with events which are based on intra-organisational, or work stress issues, as against extra-organisational events based on trauma related issues.

For example, Dewe (1991b) acknowledges that procedures should be designed to test the explicit relationship between appraisal and coping and avoid the generalities that accompanies measures where respondents are simply asked how they usually cope with the general stress of work.

Dewe (1991b, pp 343) also states that the secondary appraisal variable, 'One that I must accept or that I just got used to (SECOND2)' moderates the relationship between the coping strategy, 'passive attempts to tolerate the effect' and 'tension'. The greater the tension the greater the use of the coping strategy.

The coping strategies were examined in Table 66, using the procedure suggested by Edwards and Baglioni (1993). It is worth highlighting that in both the METPOL survey and the MAIN U.K. Forces study, SECOND2 appraisal strategy remains a consistent feature of evaluating the options for coping, as evidenced in the SECEX variable (Table 33, Rank 1) above. Further, the SECOND5 variable (Table 33, Rank 2), 'One where work bureaucracy made it difficult to deal with' also indicated the difficulty that Police Officers face, when trying to marshal the resources to cope with multiple exposure to traumata.

### **21.1. Multiple Exposure To Trauma.**

Again, clear evidence has emerged that there are differences in effects between groups who have been exposed to trauma - either 'none; once; twice; or, three or more times'.

Tables 68 to 73 indicate small but significant differences between the above groups who were exposed to trauma - particularly in relation to the frequency and intensity of intrusion and avoidance. Negative affectivity (NAFF) and a belief about the randomness of events (RANDOM) also showed significant variance between the groups.

In paragraph 17.1.1., it was argued that there were differences in the percentage and frequency of reports for intrusion and avoidance. This dissertation argued that, perhaps, the intrusiveness of events was more intensely experienced than avoidance. And results from the threshold tables partially supports this notion (see Tables 54,56,58 and 60). Thus 44% (N=233) of the MAIN U.K. respondents, reported 3 or more items associated with frequency of intrusion, and 38% (N=201) reported 3 or more items for intensity of intrusion.

The current study also maintained that avoidance scores would be lower, since avoidance was more likely to be associated with mechanisms of defence. Thus only 27% (N=143) of the MAIN U.K. subjects reported 3 or more items associated with the frequency of avoidance and 24% (N=126) reported 3 or more items associated with the intensity of avoidance.

Although the threshold differences reported by the respondents (in percentage terms) for intrusion and avoidance is not great, and the threshold scores of 3 or more items is arbitrary, it is further argued that avoidant behaviour may point to the idea it is something more than denial or repression.

Bloch (1991) and others (Horowitz 1993; Lazarus 1983) argue that that avoidant behaviour may be the subject of resolution at a later stage - as an adaptive mechanism of defence, and may serve to reduce or constricting emotional and/or ideational processing of trauma events.

The results reported here for the MAIN U.K. Forces survey (and for the METPOL survey - see Tables 23,25,27 and 29) offer evidence that intrusion is more intensely experienced than avoidance per se, and would contribute to the idea that avoidance is being negotiated at the level of trauma signatures i.e. that avoidance is being integrated into traumatic schema to assist in the speedy resolution of the trauma itself (Janoff-Bulman and Timko 1987).

Both the METPOL and MAIN U.K. results suggest that a belief in the 'benevolence of the world' and a general belief about 'benevolence towards people' are usually separated as single factors. For example, Janoff-Bulman (1989) reports that it was important to ascertain if the WAS scale was composed of independent factors and not simply internally consistent assumptions. Her analyses revealed that 'benevolence of the impersonal world and benevolence of people' had emerged as a single factor.

Elsewhere the Janoff-Bulman (1989) reports that, 'In other words, victims may see the world as more malevolent following a traumatic event, and that they may also access, use, think about, or rely on their schema for victimisation.'

This would be seen as an important issue for victims and might lead to changes in other domains involving perceived self-efficacy, depression and cynicism:

'If a schema is very accessible, other more ambiguous information is apt to be interpreted in terms of that schema; it is as if the world is perceived particularly through the lenses of one's most accessible schemas'.

JANOFF-BULMAN (1989 pp 132).

The above METPOL and MAIN U.K. results lend credibility to the notion of 'trauma signatures' for police populations. A strong internal assumption about the benevolence of the world and of people may be viewed as an additional coping strategy.

Multiple exposure to trauma, however, is not as clear cut as presented here. For example, there are differences between the groups who are exposed to trauma, 'not at all, once, twice, or three or more times', but any further interpretation of these results is redundant, at least without further research using a time-series or repeated measures design.

If, further research included the IES measures of frequency and intensity of intrusions and avoidance (Horowitz et al. 1979) - amended to include the number of traumatic events (as in the current studies). And the trauma events are reported over a longer time scale than that used in the METPOL and MAIN U.K. surveys. Then it is likely that intrusive thoughts and behaviours would seem to be superordinate on the trauma hierarchy; whilst avoidant thoughts and behaviours would seem to be subordinate to the trauma hierarchy.

In other words, both intrusion and avoidance serve a purpose, but at different times and at different locations within trauma experience. Lazarus and Folkman (1984), for example, argue that cognitive appraisal mechanisms help people to survive hostile situations and environments, and they learn to distinguish threat from safety. Cognitive appraisal may therefore, mediate the reaction to events that reflect unique and changing experiences within the persons internal model of the world, in stark relationship to his or her environment. Intrusion may be limited in its effects, whereas avoidance may be the better option to assist in the timely appraisal of events that are hostile, overwhelming or, ultimately, damaging.

Thus, notional assumptions about the benevolence of the world and people, would be integrated into a trauma signature, to assist the police officers in: (a) resolving intense short lived intrusive images and thoughts and (b) off-setting avoidant thoughts and behaviours, until the officers gather strength and energy to deal with these issues at a later stage in the resolution process.

#### **21.1.1. Work Stress Or Work Trauma?**

The WORK1 to WORK10 variables (MAIN U.K.; Table 51) which were differentiated into work trauma (WORKTR) and non-trauma work stress (NONTRAU) variables, has indicated that 24% (N=128) reported work problems ranging from, '4=has often applied' to '5=has very often applied', for both variables. Conversely, the METPOL survey revealed that 27% (N=36) reported work problems for work related stress and non trauma.

It is further interesting to note that in both the reported studies, when the subjects were asked for, 'any specific event which had a particular impact upon you' (Appendix "D", paragraph 3.1.) - it was anticipated that there would be reports similar to those reported by Blake, Albano and Keane (1992). That is, trauma which is akin to experiences of technological and man-made disasters; violence; sudden unexpected death and so on. Instead, in the two reported surveys, there was a mixture of traumatic stress, organisational stressors and combinations of these.

In paragraph 5.2.2., this dissertation argued that the police, may experience long lasting affect states produced by combinations of work stress and multiple exposure to work trauma. If a police officer accumulates trauma experience, as a result of prolonged and repetitive exposure, then they may cope adaptively or maladaptively.

Certain kinds of police work - which the officers see as a daily consequence of their working lives - may, indeed, lead the individual to view work stress as being traumatic. In these cases the trauma may be relatively short lived, but there may be a possibility that unique (previously unencountered) trauma events might lead to acute periods of distress until the officer returns to their 'normal' routine. And as the Officers pass into the trauma sequence, several times over, they 'stair-step' into the recovery processes at a higher level of physiological or psychological functioning (Williams 1993).

Horowitz (1993), further, argues that, 'personality typology, culture, and other factors that affect style, habit, and schematization will also affect how the person experiences and expresses ideas and emotions in response to stressful events.'

The current MAIN U.K. survey argues that intrusive images, in acute stress, involve resolution - through re-enactment of the trauma experience - which includes thinking about the event; experiencing feelings (positive or negative) associated with the event; and discussing the trauma with others. Horowitz (1993), for example has argued that this may include forming new schematizations about the trauma, or revising existent schemas to incorporate new information.

McCammon et al. (1988) also maintain that the cognitive appraisal of events involve regaining mastery over the events through individual action, or attempts at attaching 'meaning' to the event through self reflection.

It is an intuitive leap of logic to claim that work stress is not the same as work trauma. However, on a continuum of stressful events, these two entities cannot be satisfactorily separated. For some Police Officers, stress in the workplace may have as an important impact as having to negotiate conventionally recognised trauma experiences as documented in Blake, Albano and Keane (1992) and Herman (1992).

Table 64, for example, reveals that 34% (N=161) of the MAIN U.K. cohort endorsed 3 or more items associated with general mental well-being for the GHQ1 to GHQ12 variables. This alone highlights the notion that stress or trauma (and no such distinctions are reported here) has contributed to a measure of distress.

Further, measures of long term state and trait anxiety (NAFF; Parkes 1990) has revealed minor associations between multiple exposure to trauma and negative affectivity (Table 72), indicating that there has been an impact on these officers: though precisely at what stage in their service and in relation to what level of trauma exposure ('three or more times' as against, 'none, once, or twice') cannot be clearly determined at this time.

## 22. SUMMARY.

The METPOL survey provided a useful frame of reference for examining trauma exposure, how it is appraised, evaluated, and what coping strategies the officers used. A wider cohort of police and civil staff in the MAIN U.K. Forces survey, has produced similar results, in that there are some trauma affects associated with multiple exposure to events, but in both surveys, further work is needed in the long term to distinguish between groups who are exposed 'none; once; twice' or, 'three or more times' in relation to their time in work.

The next survey attempts to answer the main objectives set in paragraph 10 above. Five objectives were set and correlational and multiple regression analyses were conducted for the METPOL and MAIN U.K. surveys to determine whether there are any additional trauma affects, not previously accounted for.

At the conclusion of the next section, also, the dissertation is discussed in relation to trauma and outcome relationships.

### 23. TRAUMA AND OUTCOME RELATIONSHIPS.

The previous results and discussion chapters explored relationships within the individual item banks. And although correlational and other techniques were used to assess relationships between one or two instruments, no overarching analyses have been conducted, thus far, to examine the relationship between the variables as a whole.

However, there have been some interesting findings of note for both the METPOL and MAIN U.K. surveys, thus far.

For example, for the METPOL survey, Table 18 demonstrated that 10% of the respondents scored a combined 4 and 5 on all five of the WORKTR (work-related trauma) variables for, 'has often/very often applied'. Conversely, 17% scored a combined 4 and 5 on all five of the NONTRAU (non trauma related) variables. Tables 41 to 44 also produced significant findings for the one-way analyses of variance for IES with INTRUDE, INTEX, AVOID and AVEX.

Similarly, in the MAIN U.K. survey, Table 51 indicated that 10% of the respondents scored a combined 4 and 5 ('has often/very often applied') on all five of the WORKTR variables, whilst 14% of the respondents scored 4 and 5 on all five of the NONTRAU (non trauma related) variables. Also, Tables 68 to 71 produced significant findings for the one-way ANOVA's for IES with INTRUDE, INTEX, AVOID, AVEX.

Not surprisingly officers report more frequent experience of non work related 'hazards' (NONTRAU) than of work-related trauma (WORKTR). However, it is sobering to find that on both the METPOL and MAIN U.K. surveys some 10% of the respondents report frequent experiences of work-related trauma.

The next section uses correlational and multiple regression techniques to further examine both sets of data (METPOL and MAIN U.K.) for relationships between multiple exposure to trauma and outcomes. This may provide important predictors of relationships between well-being, negative affectivity and/or other influencing factors involved in sequential trauma.

In paragraph 10 above, five research objectives were also framed and this final analysis section will address these outstanding issues.

With reference to the correlation and multiple regression tables below, for simplicity, the SPSS TITLE, the number of items (No.); the intended (MEASURE) of items; the Likert type scale (SCALE); the scale range (RANGE); what high or low scores mean for the items (SCORES); and the SPSS CODES are given in TABLES 74a and 74b below.

Except where stated, these variables apply to both the METPOL and MAIN U.K. Forces Surveys.

TABLE 74a: Showing Battery Items And Coding For SPSSPC+ In The METPOL Survey (N=134) And The MAIN U.K. Forces Survey (N=528).

SPSS TITLE	NO.	INTENDED MEASURE	SCALE	RANGE	SCORES
AGE	-	RESPONDENTS AGE	-	YEARS/MONTHS	-
SERVICE	-	LENGTH OF SERVICE	-	YEARS/MONTHS	-
GENDER	-	MALE OR FEMALE	-	0=MALE 1=FEMALE	-
INPOST	-	TENURE IN POST	-	YEARS/MONTHS	-
WPROB	10	WORK PROBLEMS	1-5	1=Not applied to	HIGH score = cumulative work/home stress
DPROB *	10	DOMESTIC PROBLEMS	1-5	5=Often applied	
INTRUDE	7	FREQUENCY INTRUSION	0-5	0=Does not apply	HIGH scores for frequency and intensity of intrusion or avoidance = impact of event on respondent
AVOID	8	FREQUENCY AVOIDANCE	0-5	5=Often applies (for frequency)	
INTEX	7	INTENSITY INTRUSION	0-5	0=Does not occur	
AVEX	8	INTENSITY AVOIDANCE	0-5	5=Often occurs (for intensity)	
PTSDIN *	4	PTSD INTRUSION	1-7	1=Not present to	HIGH score = cumulative PTSD scores for the respondent
PTSDAV *	7	PTSD AVOIDANCE	1-7	7=Extremely severe	
PTSDHYP *	6	PTSD HYPERAROUSAL	1-7		
PRIME	8	PRIMARY APPRAISAL	1-5	1=Not at all to	LOW score = effective appraisal
SECOND	6	SECONDARY APPRAISAL	1-5	5=A great deal	
IES	3	MULTIPLE EXPOSURE	0-3	0=No exposure 1=Once 2=Twice 3=Three or more	HIGH score = multiple exposure of events
GHQ	12	CONTEXT FREE MENTAL HEALTH	0-3	0=Better than usual to 3=Much less than usual (positive items)  0=Not at all to 3=Much more than usual (negative items)	HIGH score = poor context free mental well being  positive and negative items are added together
NAFF	6	NEGATIVE AFFECTIVITY	1-4	1=Almost never to 5=Almost always	HIGH score = reflects negative affectivity



**TABLE 74b: Showing Battery Items And Coding For SPSSPC+ In The METPOL Survey (N=134) And The MAIN U.K. Forces Survey (N=528).**

SPSS TITLE	NO.	INTENDED MEASURE	SCALE	RANGE	SCORES
<b>CHANGE</b>	4	CHANGING THE SITUATION	1-5	1=I do not use this technique to 5=I always use this technique  See para 20.1.9 for scoring the six forms of Cybernetic Coping Scale	LOW score = fewer coping techniques employed by the respondent
<b>ACCOM</b>	4	ACCOMMODATING DESIRES	1-5		
<b>DEVAL</b>	4	DEVALUING THE SITUATION	1-5		
<b>AVOID</b>	4	AVOIDING THE SITUATION	1-5		
<b>REDUCE</b>	4	SYMPTOM REDUCTION	1-5		
<b>SUPPORT</b>	4	SEEKING SOCIAL SUPPORT	1-5		
<b>BENWOR</b>	4	BENEVOLENCE TOWARDS WORLD	1-6	1=Stongly agree to 6=Strongly disagree  See para 20.1.10 for scoring the eight dimensions of the World Assumptions Scale	HIGH BENWOR = Note (a)
<b>BENPEP</b>	4	BENEVOLENCE TOWARDS PEOPLE	1-6		HIGH BENPEP = Note (b)
<b>JUSTICE</b>	4	BELIEF IN JUSTICE	1-6		HIGH JUSTICE = Note (c)
<b>CONTROL</b>	4	SELF CONTROL	1-6		HIGH CONTROL = Note (d)
<b>RANDOM</b>	4	RANDOMNESS OF EVENTS	1-6		HIGH RANDOM = Note (e)
<b>WORTH</b>	4	SELF WORTH	1-6		HIGH WORTH = Note (f)
<b>SELFCON</b>	4	BELIEF IN SELF CONTROL	1-6		HIGH SELFCON = Note (g)
<b>LUCK</b>	4	BELIEF IN LUCK	1-6		HIGH LUCK = Note (h)

KEY TO TABLES 74a and 74b: (SPSS TITLE)=Variable code; (No.)=Number of items included in the variable; (INTENDED MEASURE)= Composite score of items and what they measure; (SCALE)=Item scale; (RANGE)=Scale range; (RANGE)=Explanation of scale range; (SCORES)=Interpretation of item scores; (\*)=Analyses applied to METPOL data only.

**NOTES:**

(a)= A belief that the world is generally a malevolent place; (b)= A belief that people are generally malevolent; (c)= A belief that the world is an unjust place. (d)= A belief that one has no control over events; (e)= A belief that things happens to people more than by chance; (f)= A belief associated with low self-esteem; (g)= A belief that one has no self-control; (h)= A belief that one is unlucky.

### 23.1. Experience Of Work Stressors, Frequency Of Trauma And The Impact On General Mental Health And Coping.

Evidence has been provided within this thesis that more police officers than civil staff encountered a number of trauma events (see paragraphs 13.1.1.; 16.1.3.; and 20.1.3).

Appendix "A" provides details of some of these events, grouped into police and civil staff responses, and these verbal accounts revealed little difference in intensity between the two groups.

Appendix "C" provides case scenarios for the METPOL respondents, which highlight the kinds of incidents that the officers have experienced. The majority of the respondents reported that they had been affected by the impact of the trauma - for at least 2 years on average.

The exceptions for civil staff encountering three or more trauma events (IES referents) were Scenes Of Crimes Officers and Photographers - who were exposed to trauma on a frequent basis as a natural consequence of their work, compared with other civil staff workers engaged in, say, administration work.

Also, the results of separate analyses for frequency and intensity of intrusion and avoidance and the thresholds scores of these responses, using the procedure described by Neal et al. (1994) - as in sections 16.1.6. and 20.1.6. - all indicate that the impact of events serves to trigger an accumulation of trauma or anxiety states.

But how does trauma stimuli assert an influence on general mental health and other outcomes?

The present study measured work related problems (WORK1 to WORK10), including: violence (WORK1); tedious administration work (WORK2); accidents (WORK3); sudden death (WORK4); the abuse and care of children (WORK5); domestic violence (WORK6); public disorder (WORK7); court proceedings (WORK8); chemical and/or physical hazards (WORK9) and biological hazards (WORK10).

The frequency of occurrence of these incidents have been highlighted elsewhere for both groups (Table 17 for the METPOL and Table 50 for the MAIN U.K. Survey).

Tables 75 and 76 below, present the IES variable (coded, as '0'=No trauma event; '1'=One trauma event; '2'=Two trauma events; and '3'=Three or more trauma events'); general mental health (GHQ); negative affectivity (NAFF); the 6 Cybernetic Coping Scales and the 8 World Assumption Scales (i.e. a total of 17 selected variables) - correlated with the WORK1 to WORK10 variables.

The METPOL data (N=134) revealed only two minor significant findings: A negative correlation was found between GHQ and WORK3, 'Work related accidents involving serious injury and/or damage' ( $r = -.22$ ,  $p < .01$ , 2-tailed significance) and a positive correlation between beliefs in JUSTICE and WORK7, 'work related matters involving public order and/or disorder' ( $r = .22$ ,  $p < .01$ , all at 1-tailed significance). Although these results are initially disappointing, this may be due to the relatively small sample size in the METPOL respondents (N=134).

These correlations are reported in Table 75 below.

However the MAIN U.K. findings (Table 76) indicate that multiple exposure to trauma stimuli, associated with work stressors, may have affects in relation to one or more indices of outcome measures, such as GHQ and NAFF (negative affectivity). For example, violent confrontations (WORK1) has a minor association with multiple exposure to trauma (IES); attempts at coping by 'reducing symptoms' (REDUCE); and a belief that people are malevolent (BENPEP).

WORK1 also has minor association with the belief that 'things happen more than by chance' (RANDOM) and the belief that, 'people are generally malevolent' (BENWOR).

Multiple exposure to trauma (IES), also has a small, but important, association with other work variables such as: Violence at work (WORK1); reporting vehicle accidents (WORK3); the abuse of children (WORK5); reporting sudden deaths (WORK4); and biological hazards associated with policework (WORK10). This indicates the range and complexity of the tasks that Officers have to perform and underpins the notion that any exposure to trauma may have an affect on attitudes towards dealing with incidents at work.

However, it is worth emphasising that consideration was given to provide evidence for the sequential nature of trauma. Thus it can be seen from the data relating to the above work-related variables (WORK1 TO WORK10), that these matters fall under a definition of multiple trauma experience some of which have an minor impact on general mental health (GHQ) - particularly in dealing with, administration duties and paperwork (WORK2) and matters involving domestic violence (WORK6) - indicating poorer mental health associated with having to deal with tedious admin. duties and getting involved in disputes between partners.

Negative affectivity (NAFF), is also weakly associated with tedious admin. and paperwork (WORK2); domestic violence (WORK6); vehicle accidents (WORK3); reporting sudden deaths (WORK4) and the abuse and care of children (WORK5) - perhaps indicating that the more Officers are involved in these matters, the more likely their self esteem is eroded.

The work-related variables for the MAIN U.K. may also have an important effect on other outcome variables, such as the coping strategies used: For example, violence (WORK1) is associated with the 'reduction of symptoms'. And the abuse and care of children (WORK5) is associated with 'accommodating desires'; 'symptom reduction'; and 'seeking social support'. Again, these correlations are weakly associated with the named work variables, but point to the notion that the subsequent coping strategies may be influenced by exposure to these particular work hazards.

Attention is also drawn to the World Assumption Scale correlations, which reflect an association with internal world beliefs. So, for WORK1 (violence), a minor correlation was found with the belief that 'the world is generally a malevolent place' and that people are generally violent. Conversely, a low correlation was shown for the belief that, 'things happen more than by chance' and violent encounters - which might suggest that violence/assaults are themselves perceived as a regrettable feature of police work.

There were other minor correlations between the World Assumption Scale variables for: Administration and paperwork (WORK2) with a feeling of malevolence towards people; vehicle accidents (WORK3) and perceived notions of self-control and the randomness of events; sudden deaths (WORK4) and the randomness of events ; public disorder (WORK7) and malevolence towards people, and the world, and a belief that these things happen by chance or luck; and, lastly, biological hazards (WORK10) associated with a general feeling of malevolence towards the world.

Generally, the low correlations between the World Assumptions Scale and the work related variables described above, indicate that the more Officers encounter hazards associated with their daily duty, the more it is likely that they could foster negative feelings towards the world and people. And as they encounter particular hazards (such as accidents, sudden deaths, and public disorder mentioned above) it may be that these incidents are accepted as being part and parcel of policework, though subject to chance. In other words, potentially traumatic hazards may be perceived as being, 'the luck of the draw'; (i.e. occurring at random).

The notion that the acquisition of multiple traumata has an affect on GHQ, NAFF, WAS and cybernetic coping scales will be tested at a later stage in the analyses presented in this dissertation - using multiple regression techniques.

In the meantime, further correlations were conducted using the METPOL and MAIN U.K. survey data to test for associations within the larger item banks.

For the METPOL respondents (Tables 77a and 77b), correlations for 32 variables were conducted for AGE; SERVICE; GENDER; and INPOST (biographical details) and for the work (WPROB) and domestic related problems (DPROB). The frequency and intensity of intrusion and avoidance (INTRUDE; INTEX; AVOID; AVEX); PTSD indices of intrusion, avoidance and hyperarousal (PTSDIN; PTSDAV; PTSDHYP); primary and secondary appraisal (PRIME; SECOND); general mental health and negative affectivity (GHQ; NAFF); the six categories of the Cybernetic Coping Scale (CHANGE; ACCOM; DEVAL; AVOID; REDUCE; SUPPORT); and the eight dimensions of the World Assumption Scale (JUSTICE; BENPEP; RANDOM; BENWOR; WORTH; SELFCON; CONTROL and LUCK).

For the MAIN U.K. respondents (Tables 78a and 78b) only 28 variables were correlated - excluding domestic problems (DPROB); and the PTSD indices of intrusion, avoidance and hyperarousal (PTSDIN; PTSDAV and PTSDHYP).

TABLE 75: Showing Correlations For 17 Selected Variables With The WORK1 To WORK10 Variables In The METPOL Survey (N=134).

Variable	WORK1	WORK2	WORK3	WORK4	WORK5	WORK6	WORK7	WORK8	WORK9	WORK10
1 IES	.00	.02	.09	.16	.17	.07	-.12	.11	.09	.10
2 GHQ	-.04	.13	-.22 <sup>+</sup>	-.19	-.10	-.10	.13	-.00	-.10	.19
3 NAFF	-.06	.09	-.02	-.01	.04	-.04	.11	.05	-.01	-.02
4 CHANGE	-.07	.19	-.07	-.06	-.02	.02	.08	-.10	-.05	-.15
5 ACCOM	-.07	.09	.03	.12	.11	.08	.15	-.03	-.00	-.11
6 DEVAL	-.02	.06	.02	.17	.09	.06	-.03	-.08	-.05	-.02
7 AVOID	.08	.11	.05	.13	.11	.15	.04	.06	.04	.09
8 REDUCE	-.11	.15	-.06	.16	.04	.05	-.08	-.05	-.02	.01
9 SUPPORT	-.08	.04	.02	.10	.06	.06	.09	-.03	-.00	-.01
10 BENWOR	.14	.10	-.07	.02	.06	.02	-.12	.09	-.02	.00
11 BENPEP	.08	-.03	-.00	.02	-.00	.02	-.13	-.00	.01	.04
12 JUSTICE	.09	.12	.02	.05	.01	.02	.22 <sup>+</sup>	.01	-.01	-.02
13 CONTROL	.02	.04	.00	-.02	.01	.00	.07	-.01	.05	-.05
14 RANDOM	-.06	.12	-.03	-.00	.03	.03	.02	.10	.05	-.00
15 WORTH	.07	.08	-.08	.08	.17	.11	.02	.07	.03	.05
16 SELFCON	.02	.13	-.09	-.05	-.03	-.02	.05	-.04	-.05	-.12
17 LUCK	.10	-.04	.05	.03	.02	-.01	-.00	-.04	-.00	-.01

N of cases: 117 1-tailed Signif: \* - .01 \*\* - .001.

KEY TO TABLE 75: (WORK1)=Violence; (WORK2)=Admin/paperwork; (WORK3)=Accidents;  
(WORK4)=Sudden deaths; (WORK5)=Abuse and care of children; (WORK6)= Domestic violence;  
(WORK7)=Public disorder; (WORK8)=Criminal/Civil courts; (WORK9)=Chemical/physical hazards;  
(WORK10)=Biological hazards such as blood and urine.

TABLE 76: Showing Correlations For 17 Selected Variables In The MAIN U.K. Survey (N=528).

Variable	WORK1	WORK2	WORK3	WORK4	WORK5	WORK6	WORK7	WORK8	WORK9	WORK10
1 IES	.12*	.04	.14*	.19**	.12*	.07	.09	.11	.05	.16**
2 GHQ	.11	.14**	.09	.05	.04	.17**	.11	.04	-.00	.07
3 NAFF	.10	.15**	.12*	.12*	.13*	.18**	.08	.07	.05	.06
4 CHANGE	.05	.06	-.03	-.04	.06	.08	.08	-.02	-.01	-.02
5 ACCOM	.02	.07	.03	.01	.13*	.04	-.02	.02	.05	.07
6 DEVAL	.02	-.03	.04	-.05	.04	.04	.00	-.00	.06	-.01
7 AVOID	.00	-.00	.07	-.02	.02	.03	.06	-.02	.03	-.00
8 REDUCE	.12 <sup>+</sup>	.01	.01	.04	.15**	.17**	.09	.03	.04	.05
9 SUPPORT	.02	.04	-.04	-.01	.15**	.11	-.02	.07	-.03	.00
10 BENWOR	.15**	.11	.08	.08	.04	.10	.17**	.05	.07	.12*
11 BENPEP	.13*	.15**	.08	.07	.02	.07	.13*	.04	.03	.06
12 JUSTICE	.04	-.02	.06	.08	.09	.09	.04	.05	.00	-.10
13 CONTROL	.07	-.01	.12*	.06	.03	.06	.06	.06	-.00	.11
14 RANDOM	-.14**	-.03	-.12*	-.15**	.00	-.08	-.09	-.03	-.09	.10
15 WORTH	.02	.09	-.01	.02	.08	.08	.02	-.02	-.03	.00
16 SELFCON	-.02	.06	-.04	-.05	.00	-.02	-.03	.03	-.08	-.08
17 LUCK	.11	.10	.09	.09	-.07	.03	.17**	-.00	.02	.11

N of cases: 479; 2-tailed Signif: \* - .01 \*\* - .001.

KEY TO TABLE 76: (WORK1)=Violence; (WORK2)=Admin/paperwork; (WORK3)=Accidents;  
(WORK4)=Sudden deaths; (WORK5)=Abuse and care of children; (WORK6)= Domestic violence;  
(WORK7)=Public disorder; (WORK8)=Criminal/Civil courts; (WORK9)=Chemical/physical hazards;  
(WORK10)=Biological hazards such as blood and urine.

### 23.1.1. The METPOL Correlations.

The correlation matrix for the METPOL survey data also reveals features associated with trauma work: i.e. that frequency and intensity of avoidance and intrusion may affect primary and secondary appraisal, general mental health outcomes, and a tendency towards negative affectivity.

Tables 77a and 77b, in particular highlights fairly significant correlations which are grouped around domestic problems (DPROB); the frequency and intensity of intrusion (INTRUDE; INTEX); the frequency and intensity of avoidance (AVOID; AVEX); post traumatic disorder symptoms associated with intrusion, avoidance and hyperarousal (PTSDIN; PTSDAV; PTSDHYP); primary and secondary appraisal (PRIME; SECOND) general mental health (GHQ) and negative affectivity (NAFF) as evidenced by variables 6 to 18.

In particular, the GHQ variables produced moderate correlations ranging between  $r = .33$  and  $r = .55$ , all at  $p < .001$  (see GHQ Columns 7 to 16) for domestic problems, frequency and intensity of intrusion and avoidance; PTSD indices of intrusion, avoidance and hyperarousal; and primary and secondary appraisal - all indicating that, perhaps, low general mental health may be affected by problems at home.

The NAFF variable also produced correlations ranging between  $r = .32$  and  $r = .56$ , significant at the  $p < .001$  level (see NAFF Columns 7 to 17) for domestic problems and their association with frequency and intensity of intrusion and avoidance; PTSD intrusion, avoidance and hyperarousal; primary and secondary appraisal and low general mental health. In other words, high GHQ scores might indicate that the respondent has low general mental health in relation to negative affectivity (i.e. high NAFF means that the respondent has a tendency towards neuroticism).

The above results might indicate that exposure to domestic problems has an effect, initially, on primary appraisal (i.e. poor first attempts at appraising the trauma) and secondary appraisal (i.e. poor attempts at marshalling one's resources to cope with the event). Thus leading to more intrusive images and thoughts and avoidant behaviours, as well as inducing some affects associated with PTSD intrusion, avoidance and hyperarousal.

The Table 77a correlations (as well as those in Table 76) provide supporting evidence that trauma has some impact on general mental health (GHQ; Column 17) - particularly when the respondents are confronted with domestic type stress and trauma. Again further evidence may be deduced from the multiple regression analyses reported below.

In the meantime, there are also interesting and unexpected variations such as the relationship between age and the coping strategy of 'seeking social support'; an Officer's length of service and PTSD avoidance; gender and the coping item, 'devaluing the situation'.

Other correlations were found between notions of low self esteem and domestic problems (WORTH/DPROB); avoiding the situation and domestic stress (AVOID/DPROB); a belief that, 'one has no control over events' with, 'seeking social support' (CONTROL/SUPPORT) and CONTROL associated with a belief that, 'the world is an unjust place' (CONTROL/JUSTICE) - all indicating some minor interplay between problems at home, associated with a low self image and a poor image of the respondents' internal model of the world in general.

In fact, low self esteem or self worth (WORTH: Row 29) produced moderate correlations associated with domestic hassles; intensity of intrusive thoughts and images; frequency and intensity of avoidance; PTSD avoidance, intrusion and hyperarousal; primary appraisal; general mental health; negative affectivity and coping-avoidance.

The cybernetic coping subscale of, 'devaluing the situation' (DEVAL, Row 21), produced minor correlations for GENDER; intensity of avoidance (AVEX); and PTSD intrusion (PTSDIN); and, 'changing the situation (CHANGE)' - perhaps indicating that the possible differences in coping strategies used by male and female respondents, as well as some indication of avoidant behaviours and intrusive thoughts and images and attempts at playing down the problems - or moving away from them. Here it should be noted that, 'devaluing the situation' (DEVAL) and 'accommodating desires to meet expectations (ACCOM) produced the highest correlation ( $r = .50$ ,  $p < .001$ ).

Similarly, the coping variable, 'avoiding the situation' (AVOID, Row 22) per se, produced moderate correlations for DPROB; The 'Impact of Event scales for AVOID and AVEX; PTSDIN; PTSDAV; PTSDHYP; PRIME; GHQ; NAFF; and DEVAL - all indicating that perhaps domestic problems are affected by frequency and intensity of avoidant behaviours, an association with PTSD, and attempts at either assessing the current situation or playing down domestic hassles. This may also lead to poorer mental health and self esteem.

### **23.1.2. Relationships Between Measures Of Primary And Secondary Appraisal With General Mental Health And Negative Affectivity.**

Primary appraisal (PRIME; Row 15) also correlates moderately with domestic problems (DPROB); frequency and intensity of intrusion and avoidance (INTRUDE; INTEX; AVOID; AVEX), as well as the variables associated with intensity of PTSD intrusion, avoidance and hyperarousal (PTSDIN; PTSDAV; PTSDHYP). It is as if poor initial attempts at appraising the situation may lead to marked intrusive thoughts and images and avoidance behaviours, and possibly PTSD indices of stress and strain, particularly in relation to problems experienced at home.

There is also a moderate relationship between the secondary appraisal mechanisms (SECOND, Row 16) - i.e. marshalling ones resources to cope with domestic problems - and indices of frequency and intensity of intrusion and avoidance; PTSD intrusion, avoidance and hyperarousal and initial primary appraisal of the trauma events.

GHQ is also moderately associated with primary appraisal (PRIME;  $r = .42$ ) and secondary appraisal (SECOND;  $r = .33$ ) - both at the  $p < .001$  level.



Further, low self esteem, or negative affectivity (NAFF) is moderately associated with primary (PRIME) and secondary appraisal mechanisms (SECOND) and general mental health (GHQ) itself.

These results suggest important relationships between encountering domestic problems and the outcomes of trauma - for both frequency and intensity of intrusion and avoidance and post trauma stress indices of intrusion, trauma and hyperarousal. The relationships between the primary appraisal of domestic events and the anxiety that is experienced by the respondents in, possibly, marshalling the resources to cope with those domestic crises (i.e. secondary appraisal) are also evident. These lead to associations with general mental health and negative affectivity (GHQ; NAFF) as outcome measures of trauma.

The self-worth variable (WORTH, Row 29), in the METPOL data, also suggest that perceptions of low self esteem may, in turn, influence general mental health outcomes (WORTH/GHQ) and contribute to long term negative affectivity (WORTH/NAFF), particularly in relation to the coping strategy of avoiding the situation (i.e. WORTH/AVOID).

The highest correlations also support the idea that the trauma stimuli, measured by the intensity and frequency of intrusion (INTEX/INTRUDE;  $r=.87$ ) and intensity and frequency of avoidance (AVEX/AVOID,  $r=.88$ ) - both at  $p < .001$  - are perhaps too similar to be measured as distinct constructs. This was an important consideration in the removal of these IES variables when conducting the MRA's reported below.

Future research should consider using the Neal et al. (1994) variables of frequency of intrusion and avoidance (INTRUDE; AVOID) only - see paragraphs 16.1.6 (Table 30) and 20.1.6 (Table 61).

Lastly, Table 77a also indicates some minor associations between work-related problems and domestic problems, particularly in relation to frequency and intensity of avoidance (Column 6) - perhaps indicating that that avoidant thoughts, images and behaviours may impact upon hassles in either the respondents' professional or private lives.

TABLE 77a: Showing Correlations For 32 Selected Variables In The METPOL Survey (N=134)  
[Variables 1 to 17].

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1 AGE	37.53	7.17	-																
2 SERVICE	16.29	7.43	.89**	-															
3 GENDER	.87	.34	.38**	.35**	-														
4 INPOST	5.61	5.76	.43**	.42**	.11	-													
5 IES	1.32	.81	.03	.15	-.14	.06	-												
6 WPROB	26.68	9.32	-.07	-.02	.07	-.08	.15	<b>(.89)</b>											
7 DPROB	20.76	6.07	.05	.04	.09	-.07	-.11	.28*	<b>(.74)</b>										
8 INTRUDE	9.46	5.23	.10	.15	-.04	.02	.07	-.01	.40**	<b>(.89)</b>									
9 INTEX	8.75	5.35	.08	.12	-.03	-.02	.06	.07	.42**	.87**	<b>(.90)</b>								
10 AVOID	7.38	5.20	-.04	.08	-.05	-.06	.13	.25*	.35**	.52**	.51**	<b>(.82)</b>							
11 AVEX	6.55	5.07	-.00	.12	-.06	-.03	.13	.22*	.34**	.59**	.63**	.88**	<b>(.84)</b>						
12 PTSDIN	7.55	4.12	-.06	.02	-.08	-.10	-.04	.16	.36**	.62**	.61**	.49**	.59**	<b>(.79)</b>					
13 PTSDAV	14.03	7.77	.12	.23*	.04	-.04	-.07	.07	.38**	.52**	.51**	.62**	.62**	.69**	<b>(.85)</b>				
14 PTSDHYP	13.09	7.45	.08	.12	.07	.05	-.10	.06	.39**	.55**	.56**	.51**	.53**	.69**	.80**	<b>(.86)</b>			
15 PRIME	16.66	8.01	.17	.18	.11	-.02	.00	.07	.34**	.45**	.42**	.57**	.54**	.45**	.59**	.57**	<b>(.93)</b>		
16 SECOND	14.35	5.46	.05	.08	.05	-.09	.01	.14	.26*	.42**	.40**	.43**	.41**	.39**	.50**	.49**	.60**	<b>(.74)</b>	
17 GHQ	11.98	5.61	.07	.09	.02	-.07	.01	-.03	.44**	.53**	.50**	.43**	.48**	.45**	.54**	.55**	.42**	.33**	<b>(.89)</b>
18 NAFF	11.20	3.08	-.09	-.04	.04	-.09	.04	.01	.41**	.42**	.39**	.39**	.38**	.43**	.52**	.53**	.46**	.32**	.56**
19 CHANGE	11.83	3.00	-.05	.02	.01	-.13	-.05	-.04	.20	.12	.13	.17	.16	.12	.22*	.16	.24*	.19	.24*
20 ACCOM	9.90	2.55	-.01	.09	-.06	-.08	-.03	.08	.16	.11	.06	.23	.28*	.20	.22*	.23*	.20	.17	.22*
21 DEVAL	8.93	3.45	-.13	-.07	-.24*	-.13	.05	.08	.07	.03	.02	.23	.23*	.22*	.21	.11	.17	.11	.07
22 AVOID	8.12	3.25	-.12	-.04	-.14	.02	.13	.17	.23*	.21	.12	.35**	.40**	.37**	.39**	.29**	.32**	.17	.39**
23 REDUCE	12.00	3.49	-.07	-.01	-.08	.05	-.01	.05	.15	.01	.00	.07	.10	.04	.20	.23*	.07	.10	.26*
24 SUPPORT	11.74	3.80	-.23*	-.21	-.19	-.13	-.06	.05	.08	.09	.04	.04	.00	.14	.07	.04	.17	.11	.13
25 JUSTICE	15.90	3.89	-.08	-.05	-.05	-.09	-.02	.07	.12	.03	.08	-.02	.04	.16	.08	.02	-.09	-.08	.21
26 BENPEP	11.40	3.56	-.09	-.00	-.00	.08	-.08	-.02	.06	-.00	.10	.05	.07	.01	-.00	.02	-.04	-.06	.01
27 RANDOM	12.15	3.61	.07	.06	.04	.01	.01	.00	.02	.02	-.01	.09	.09	.05	.11	.11	.08	-.11	.04
28 BENWOR	11.88	3.81	-.16	-.16	.02	.08	.03	.03	.01	-.10	-.02	-.01	-.01	-.06	-.05	.02	.14	-.00	.04
29 WORTH	8.99	3.35	.00	.06	-.02	-.02	.14	.11	.33**	.20	.22*	.31**	.37**	.27*	.30**	.23*	.35**	.14	.42**
30 SELFCON	10.20	2.66	-.06	-.11	-.09	-.01	-.01	-.06	.15	.01	.02	-.01	.04	-.00	.01	.08	.03	.00	.24*
31 CONTROL	14.18	3.68	-.10	-.04	-.18	-.01	.10	.03	.06	.17	.19	.05	.09	.08	.05	.03	-.01	.07	.16
32 LUCK	12.40	3.83	-.17	-.13	.04	-.15	.07	.03	.04	-.01	-.02	.13	.13	-.04	-.06	-.06	.03	-.11	-.01

N of cases: 114 2-tailed Signif: \* - .01 \*\* - .001; Alphas shown on diagonal in bold.

TABLE 77b: Showing Correlations For 32 Selected Variables In The METPOL Survey (N=134)  
 [Variables 18 to 32].

Variable	M	SD	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
18 NAFF	11.20	3.08	<b>(.68)</b>														
19 CHANGE	11.83	3.00	.21	<b>(.73)</b>													
20 ACCOM	9.90	2.55	.05	.27*	<b>(.67)</b>												
21 DEVAL	8.93	3.45	.05	.24*	.50**	<b>(.87)</b>											
22 AVOID	8.12	3.25	.35**	.15	.28*	.56**	<b>(.78)</b>										
23 REDUCE	12.00	3.49	.29**	.36**	.30**	.37**	.41**	<b>(.79)</b>									
24 SUPPORT	11.74	3.80	.23*	.48**	.33**	.23*	.19	.50**	<b>(.84)</b>								
25 JUSTICE	15.90	3.89	.08	.21	.16	.08	.01	.09	.17	<b>(.73)</b>							
26 BENPEP	11.40	3.56	-.02	-.25*	-.02	.03	.09	-.08	-.22*	-.04	<b>(.70)</b>						
27 RANDOM	12.15	3.61	.06	.07	.26*	.16	.09	.06	.14	-.08	-.12	<b>(.65)</b>					
28 BENWOR	11.88	3.81	.04	.15	.01	-.01	.07	.00	-.13	.16	.59**	-.05	<b>(.77)</b>				
29 WORTH	8.99	3.35	.42**	.03	.03	.04	.36**	.06	.01	.12	.10	.03	.09	<b>(.75)</b>			
30 SELFCON	10.20	2.66	.22*	.09	.13	.09	.13	.19	.11	.34**	.14	.05	.19	.36**	<b>(.72)</b>		
31 CONTROL	14.18	3.68	.09	.14	.08	.00	.09	.15	.31**	.59**	-.00	.01	.19	.08	.45**	<b>(.76)</b>	
32 LUCK	12.40	3.83	.08	.21	.05	-.03	.09	-.04	-.11	-.01	.29**	.14	.29**	.26*	.13	.02	<b>(.81)</b>

N of cases: 114 2-tailed Signif: \* - .01 \*\* - .001; Alphas shown on diagonal in bold.

TABLE 78a: Showing Correlations For 28 Selected Variables In The MAIN U.K. Survey (N=528)  
[Variables 1 to 14].

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1 AGE	36.15	7.61	-													
2 SERVICE	13.78	8.28	.88**	-												
3 GENDER	.72	.45	.38**	.35**	-											
4 INPOST	3.25	3.83	.14*	.14*	.05	-										
5 IES	1.28	.79	.02	.06	-.03	.00	-									
6 WPROB	30.37	6.90	-.20**	-.19**	-.05	.07	.18**	<b>(.79)</b>								
7 INTRUDE	9.43	5.45	.04	.07	-.11	.04	.23**	.17**	<b>(.89)</b>							
8 INTEX	8.73	5.38	.01	.04	-.12	.00	.21**	.16**	.87**	<b>(.90)</b>						
9 AVOID	7.05	5.50	-.05	-.03	-.14*	.05	.14*	.16**	.64**	.64**	<b>(.83)</b>					
10 AVEK	6.36	5.52	-.03	.00	-.13*	.03	.15*	.15*	.61**	.68**	.89**	<b>(.86)</b>				
11 PRIME	17.75	8.42	.02	.02	-.17**	-.03	.13*	.07	.41**	.42**	.46**	.48**	<b>(.91)</b>			
12 SECOND	15.12	5.00	-.02	-.03	-.09	-.05	.18**	.18**	.39**	.38**	.36**	.38**	.48**	<b>(.66)</b>		
13 GHQ	12.00	5.75	-.09	-.06	-.18**	.04	.21**	.12	.37**	.41**	.35**	.36**	.33**	.28**	<b>(.88)</b>	
14 NAFF	11.97	3.60	-.16**	-.12	-.26**	-.02	.17**	.16**	.42**	.48**	.42**	.43**	.39**	.29**	.56**	<b>(.74)</b>
15 CHANGE	11.71	3.40	.03	.04	.06	-.19**	.01	.06	.05	.08	.04	.07	.05	.13*	.06	.00
16 ACCOM	9.90	2.88	.06	.06	-.10	.03	.12	.10	.23**	.22**	.18**	.19**	.29**	.25**	.21**	.26**
17 DEVAL	9.30	3.60	-.08	-.07	-.11	.04	.00	.03	.13*	.09	.14*	.11	.18**	.11	.14*	.19**
18 AVOID	8.61	3.36	-.13*	-.12	-.17**	-.01	-.01	.03	.23**	.22**	.31**	.22**	.19**	.11	.29**	.35**
19 REDUCE	12.50	3.25	-.13*	-.13*	-.14*	-.17**	.13*	.16**	.13*	.12	.14*	.14*	.11	.17**	.07	.22**
20 SUPPORT	12.09	3.84	-.13*	-.12	-.24**	-.18**	.16**	.09	.17**	.15*	.08	.08	.20**	.15*	.13*	.27**
21 JUSTICE	16.28	3.47	.07	.09	-.04	.01	.01	.09	.14*	.13*	.08	.13*	.06	.04	.11	.16**
22 BENPEP	10.72	3.27	-.17**	-.17**	-.00	.04	-.01	.11	.05	.08	.09	.09	.02	.09	.13*	.19**
23 RANDOM	12.43	3.48	.07	.03	.02	-.02	-.13**	-.15*	-.15*	-.17**	-.21**	-.19**	.00	-.11	-.13*	-.17**
24 BENWOR	11.41	3.55	-.16**	-.17**	-.01	.02	-.02	.16**	.04	.08	.06	.08	.07	.14*	.17**	.21**
25 WORTH	9.44	4.08	.16**	-.17**	-.28**	.03	.09	.02	.20**	.24**	.28**	.28**	.33**	.19**	.42**	.48**
26 SELFCON	10.40	2.66	-.06	-.04	-.07	.06	.02	-.06	.03	.03	.03	.02	.11	.03	.12	.18**
27 CONTROL	14.45	3.36	-.11	-.11	-.15*	.03	-.00	.11	.05	.05	.05	.06	.00	.00	.12	.13*
28 LUCK	12.75	3.94	-.05	-.07	.01	-.02	-.01	.09	.02	.06	.08	.08	.18**	.08	.14*	.10

N of cases: 448 2-tailed Signif: \* - .01 \*\* - .001; Alphas shown on diagonal in bold.

TABLE 78b: Showing Correlations For 28 Selected Variables In The MAIN U.K. Survey (N=528)  
 [Variables 15 to 28].

Variable	M	SD	15	16	17	18	19	20	21	22	23	24	25	26	27	28
15 CHANGE	11.83	3.00	<b>(.81)</b>													
16 ACCOM	9.90	2.55	.29**	<b>(.72)</b>												
17 DEVAL	8.93	3.45	.15*	.47**	<b>(.88)</b>											
18 AVOID	8.12	3.25	-.02	.29**	.50**	<b>(.83)</b>										
19 REDUCE	12.00	3.49	.31**	.26**	.21**	.15*	<b>(.74)</b>									
20 SUPPORT	11.74	3.80	.35**	.17**	.08	-.01	.49**	<b>(.85)</b>								
21 JUSTICE	15.90	3.89	-.00	.03	-.06	.00	.05	.07	<b>(.68)</b>							
22 BENPEP	11.40	3.56	-.15*	-.01	.08	.17**	-.03	-.11	.02	<b>(.76)</b>						
23 RANDOM	12.15	3.61	-.02	-.13*	-.08	-.15*	-.11	-.04	-.02	.01	<b>(.60)</b>					
24 BENWOR	11.88	3.81	-.13*	.00	.08	.13*	-.06	-.09	.16**	.72**	.05	<b>(.82)</b>				
25 WORTH	8.99	3.35	-.08	.19**	.21**	.34**	.05	.06	.05	.23**	-.06	.26**	<b>(.76)</b>			
26 SELFCON	10.20	2.66	.31**	.07	.02	.07	-.12	-.11	.13*	.21**	.11	.22**	.36**	<b>(.66)</b>		
27 CONTROL	14.18	3.68	-.09	.04	-.01	.03	-.04	.05	.51**	-.00	-.15*	.07	.12*	.33**	<b>(.75)</b>	
28 LUCK	12.40	3.83	-.18**	.01	-.02	.06	-.11	-.17**	.09	.26**	.09	.30*	.23**	.30**	.08	<b>(.81)</b>

N of cases: 448 2-tailed Signif: \* - .01 \*\* - .001; Alphas shown on diagonal in bold.

### 23.1.3. The MAIN U.K. Correlations.

The MAIN U.K. Survey correlation matrix, reveal similar findings to the METPOL data, with the exception of the correlations clustering around the variables associated with domestic problems (DPROB; Table 77a, Column 6).

Recall the DPROB variables were excluded from the MAIN U.K. questionnaire. Instead, Table 78a indicates minor associations with work-related problems (WPROB) and frequency and intensity of intrusion and avoidance (Column 6). The outcome measures of frequency and intensity of intrusion and avoidance; primary and secondary appraisal; general mental well-being and negative affectivity are also moderately represented in the MAIN U.K. data (see Columns 7 to 14).

In particular, there are some correlations which are worth highlighting for the cybernetic coping variables: For example, 'accommodating desires to meet expectations' and, 'changing the situation' (ACCOM/CHANGE); 'devaluing the situation' and 'accommodating desires to meet expectations' (DEVAL/ACCOM); 'avoiding the situation and 'devaluing the situation' (AVOID/DEVAL); 'symptom reduction' and 'avoiding the situation' (REDUCE/AVOID); and 'seeking social support' and 'symptom reduction' (SUPPORT/REDUCE) - all point to the similarity of these item variables, perhaps being used at different times and in different ways, in attempts at coping. These coping indices are explored further below.

Similarly, the World Assumption Scale measures associated with low self-esteem correlate reasonably well with poor general mental well-being (WORTH/GHQ;  $r = .42$ ) and poor negative affectivity (WORTH/NAFF;  $r = .48$ ) - both significant at  $p < .001$ .

### 23.1.4. Relationships Between Cybernetic Coping, IES and GHQ.

The Impact of Event subscales for both frequency and intensity of intrusion and avoidance were next taken into consideration.

Further examination of the matrix in Table 78a, reveal minor, but important, correlations of frequency of intrusion (INTRUDE, Column 7) with the coping strategies of, 'accommodating desires to meet expectations' (ACCOM); 'avoiding the situation' (AVOID); and 'social support seeking' (SUPPORT); 'devaluing the situation' (DEVALUE) and 'symptom reduction' (REDUCE). These correlations might indicate that the frequency of intrusive images and thoughts have some impact on the respondents' ability to cope in certain situations.

There are similar clusters for the IES variables of intensity of intrusion (INTEX; Column 8) for 'accommodating desires to meet expectations' (ACCOM); 'avoiding the situation' (AVOID) and 'seeking social support' (SUPPORT) - perhaps indicating also that the intensity of intrusive thoughts and behaviours are (albeit, weakly) associated with coping by, adjusting the impact of the intensity of intrusion, perhaps to make it more tolerable, either by avoiding it altogether, or by talking it through with significant others.

For the IES variable, frequency of avoidance (AVOID; Column 9), there were minor correlations for 'devaluing the situation' (DEVAL) 'symptom reduction' (REDUCE); 'accommodating desires to meet expectations' (ACCOM); and coping by 'avoiding the situation' altogether (AVOID).

Similarly, in Column 10, Table 78a, there were minor correlations between intensity of avoidance (AVEX) and 'symptom reduction' (REDUCE); 'accommodating desires to meet expectations' (ACCOM) and coping by 'avoiding the situation' (AVOID).

For the outcome measures of GHQ, (Column 13, Table 78a) there were minor correlations with 'devaluing the situation' (DEVAL); 'seeking social support' (SUPPORT); 'accommodating desires to meet expectations' (ACCOM) and the cybernetic coping strategy of 'avoiding the situation' (AVOID).

Negative affectivity, or low self esteem (NAFF; Column 14), produced moderate results with 'accommodating desires to meet expectations' (ACCOM); 'devaluing the situation' (DEVAL); 'avoiding the situation' (AVOID); 'symptom reduction' (REDUCE) and 'seeking social support' (SUPPORT).

Thus, it can be seen from the above results that the cybernetic coping scales (CCS) have minor but important associations with general mental health and negative affectivity, particularly in relation to the 'Impact of Event' variables for frequency and intensity of intrusion and avoidance. In other words, the more coping strategies that are used to overcome the effects of intrusive thoughts/images and avoidant behaviours; the more likely it is that the respondents will experience poor mental well-being and higher negative affectivity.

The minor correlations between GHQ and NAFF and the CCS variables - with the exception of 'changing the situation' (CHANGE) - might also indicate that the respondents are attempting to cope with multiple exposure to trauma, but that they experience significant levels of low general mental health and the long term affects associated with neuroticism.

#### **23.1.5. Relationships Between Cybernetic Coping And WAS.**

In the METPOL survey (Tables 77a and 77b) there were some minor correlations between, 'a belief that people are malevolent' and the cybernetic coping scale, 'changing the situation' (BENPEP/CHANGE) and 'a belief that things happen more than by chance' with, 'accommodating desires to meet expectations' (RANDOM/ACCOM).

Notions associated with low self esteem and 'avoiding the situation' (WORTH/AVOID); and a belief that, 'one has no control over events' and 'seeking social support' (CONTROL/SUPPORT) were also moderately demonstrated.

In the MAIN U.K. survey (Tables 78a and 78b) there were minor, but important associations with the belief that, 'people are generally malevolent' and attempts at 'avoiding the situation' (BENPEP/AVOID); a belief that, 'things happen more than by chance' with 'accommodating desires to meet expectations' (RANDOM/ACCOM) and, 'avoiding the situation' (RANDOM/AVOID).

There were also correlations between a belief that, 'the world is generally a malevolent place' with, 'changing the situation' (BENWOR/CHANGE) and, 'avoiding the situation' (BENWOR/AVOID).

A belief associated with, 'low self esteem' was correlated with, 'accommodating desires to meet expectations' (WORTH/ACCOM); 'devaluing the situation' (WORTH/DEVAL) and, 'avoiding the situation' (WORTH/AVOID).

Self control was also (i.e. 'one has no self-control') associated with, 'changing the situation' (SELFCON/CHANGE).

And Lastly, a belief that, 'one is unlucky' also produced minor correlations with, 'changing the situation' (LUCK/CHANGE) and, 'seeking social support' (LUCK/SUPPORT).

These minor results again point to the usefulness of applying internal world models to other indices of stress and trauma. In the METPOL and MAIN U.K. data, for example, there seems to be some (minor) affects between attempts at coping (and the different strategies that may be used) and notions that 'chance' or 'luck' plays a part in dealing with the subsequent experience of work related trauma. It may also be that encountering trauma by chance or luck, may determine how one copes with that event over a period of time - i.e. the more that trauma is encountered, the less likely that luck or chance would play a part.

Further, the notion that one has no control (or self-control) over what is happening to them during these trauma events, as experienced, may also play a small part in negotiating the impact of the trauma and serve to either maximise or minimise the impact of the trauma itself.

Although there is no strong evidence for the influence of the World Assumption Scale variables on cybernetic coping, the correlation tables demonstrate some involvement of viewing the world as a malevolent place, and that people may be viewed as being generally malevolent. This may be in keeping with the natural cynicism towards people and the world, that police officers seem to adopt.

Any future attempts at explaining the complex interplay between cybernetic coping and internal world assumptions might then become an interesting start point for further research.



### 23.1.6. Comparisons Between IES And Other Outcome Measures.

The METPOL Survey data produced no useful correlations for the multiple exposure to trauma variable IES. This may be due to the relatively small sample size (N=134).

However, the MAIN U.K. Survey (N=528) produced minor correlations with the IES variable (Column 5) for WPROB; INTRUDE; INTEX; SECOND; GHQ; NAFF; the cybernetic coping strategy of 'seeking social support' (SUPPORT); and the World Assumption scale variable RANDOM.

Also, the IES variable produced correlations at the  $p < .01$  level for: AVOID; AVEY; PRIME; and the coping variable, 'symptom reduction' (REDUCE) for the MAIN U.K. respondents.

These results indicate the effect that multiple exposure has on frequency and intensity of intrusion and avoidance; primary and secondary appraisal; general mental health; and negative affectivity.

Although the correlations are minor, together with the one-way analyses of variance for the INTERVIEW, METPOL and MAIN U.K. surveys, (Tables 12a and 12b, 40 to 44, and 68 to 73 respectively) there is some evidence that there is a difference between 'no exposure to trauma' at all, and exposure to trauma either, 'once', 'twice' or three or more' times. Thus it does not seem to matter whether the respondents were subject to one trauma event or more, but there were accountable differences between groups who were not exposed to trauma and those who were.

## 24. MULTIPLE REGRESSION ANALYSES.

To further explore the relative relationship of coping strategies to mental health outcomes a series of Multiple Regression Analyses (MRA's) were performed, using the procedures described by Tabachnick and Fidell (1989).

The multiple regression variables examined were: AGE; SERVICE; and GENDER for the biographic details (this was done to determine whether trauma affects were more critical in younger men or women, or those who were relatively new to the police service). The 'Impact of Event' variable for multiple exposure (IES) was also included. This variable (IES) accounted for multiple trauma exposure, either 'none, once, twice' or 'three or more times'.

Primary and Secondary appraisal variables (Dewe 1991b; Folkman et al. 1986) were used to assess factors such as the initial impact of trauma (PRIME) and the resources needed to deal with trauma (SECOND).

The 12 item General Health Questionnaire (GHQ; Goldberg 1972) was calculated as a composite variable, as well as the 6 item neuroticism scale (NAFF; Eysenck and Eysenck 1964) to reflect general mental health outcomes and negative affectivity (Parkes 1988, 1990) respectively.

The six Cybernetic coping scale factors (Edwards and Baglioni 1993) involved in changing the situation (CHANGE); accommodation of desires (ACCOM); devaluing the situation (DEVALUE); avoiding stimuli (AVOIDING); symptom reduction (REDUCE); and seeking social support (SUPPORT) were also entered into the equation.

Lastly, the eight factors of the World Assumption Scale (WAS; Janoff-Bulman 1989) reflecting attitudes towards justice, benevolence towards people, the randomness of events, benevolence towards the world, self-worth, self-control, control of events and luck (i.e. the variables JUSTICE; BENPEP; RANDOM; BENWOR; WORTH; SELFCON; CONTROL; LUCK).

**24.1. MRA Predicting General Mental Health.**

The following multiple regression analyses used a combination of variables mentioned above to predict associations with general mental health; the impact of events and negative affectivity. These outcome variables were hypothesised as being the mainstay of prolonged and repetitive exposure to trauma.

The following analyses used the standard multiple regression (DIRECT ENTRY) method in all the MRA's reported below. A first-order analysis was conducted using general mental well-being (GHQ) as a predictor, leaving out the Impact Of Event Scale (IES) variables - which measure frequency and intensity of intrusion and avoidance or outcome measures of trauma (i.e. INTRUDE; INTEX; AVOID; and AVEX) and were too similar in their scale measurement to be able to differentiate between them.

These MRA's are reported below for both the METPOL (Table 79) and MAIN U.K. (Table 80) data:

**TABLE 79: Showing The MRA Analysis For The Dependent Variable GHQ In The METPOL Survey (For 116 Cases).**

VARIABLE	BETAS	T.	SIG. T.
AGE	.19	1.05	.29
SERVICE	-.15	-.79	.43
GENDER	-.08	-.95	.21
IES	-.04	-.47	.63
NAFF	.34	3.53	.00c
PRIME	.10	.90	.37
SECOND	.07	.70	.48
CHANGE	.08	.94	.35
ACCOM	.19	2.07	.04a
DEVAL	-.24	-2.29	.02a
AVOID	.24	2.31	.02a
REDUCE	.12	1.26	.21
SUPPORT	-.17	-1.62	.11
JUSTICE	.14	1.40	.16
BENWOR	-.06	-.56	.58
BENPEP	.04	.39	.69
RANDOM	.01	.14	.89
WORTH	.17	1.79	.07
SELFCON	.00	.05	.96
CONTROL	.03	.25	.80
LUCK	-.09	-1.03	.30

Multiple R = .72    R Square = .51    R Adj. = .40  
 df (REG) = 21    df (RES) = 94  
 F = 4.71    Signif F. = .0000

a = p < .05; b = p < .01; c = p < .001

Table 79 demonstrates that the equation accounted for about 51% of the variance (R Square) in GHQ scores, which was predictable from the linear combination of the other independent variables. In this case negative affectivity (NAFF) is highly significant with a Beta value of .34 at p < .001.

Caution should be exercised however in interpreting these results, since the high N:P ratio reveals 'overfitting' - which may be due to the relatively small sample size in the METPOL sample.

Also, general mental health symptoms were clearly associated with the cybernetic coping strategies of, 'accommodating desires to meet expectations', 'devaluing' and 'avoiding the situation' - all significant at  $p < .01$ . However, the GHQ criterion variable results also suggest that there is a tendency towards negative affectivity (NAFF) which helps predict general mental health symptoms.

**TABLE 80: Showing The MRA Analysis For The Dependent Variable GHQ In The MAIN U.K. Survey (For 448 Cases).**

VARIABLE	BETAS	T.	SIG. T.
AGE	-.05	-.65	.51
SERVICE	.06	.72	.47
GENDER	-.02	-.38	.70
IES	.21	2.86	.00c
NAFF	.41	8.23	.00c
PRIME	.07	1.38	.17
SECOND	.07	1.49	.13
CHANGE	.10	2.22	.03a
ACCOM	.00	.15	.88
DEVAL	-.05	-.95	.34
AVOID	.10	2.11	.03a
REDUCE	-.08	-1.78	.07
SUPPORT	-.03	-.70	.48
JUSTICE	.00	.04	.97
BENWOR	.03	.49	.62
BENPEP	-.01	-.21	.83
RANDOM	.00	-.22	.83
WORTH	.15	3.07	.00c
SELFCON	-.05	-1.00	.31
CONTROL	.06	1.15	.25
LUCK	.04	1.07	.28

Multiple R = .63	R Square = .39	R Adj. = .37
df (REG) = 21	df (RES) = 426	
F = 13.30	Signif F. = .0000	

a =  $p < .05$ ; b =  $p < .01$ ; c =  $p < .001$

The above table indicates that the equation accounted for only 39% of the variance in GHQ scores. However the variables NAFF (Beta value .41); IES (Beta value .21); and the World Assumption Scale variable 'self-worth' (WORTH, Beta value .15), represent significant findings at the  $p < .001$  level - indicating the influence of multiple exposure to trauma and negative affectivity as, 'an index of vulnerability or reactivity to work stress' (Parkes 1990).

'Changing the situation' (CHANGE, Beta value .10) and 'avoiding the situation' (AVOID, Beta value .10) are also significant at the  $p < .05$  level.

The cybernetic coping strategies of CHANGE and AVOID, coupled with the WAS assumption of perceived 'self-worth' also plays a significant part in the shared variance with general mental health. This perhaps highlights the usefulness of adopting positive self regard and a problem-solving approach to maintaining psychological well-being.

24.1.1. MRA Predicting Impact Of Events.

Further MRA's were performed in using the standard (DIRECT ENTRY) method in equation number 1. These regression equations took into account the IES variable and its relationship with the other variables, but excluded the well-being indices of GHQ and the IES variables INTRUDE; INTEX; AVOID; AVEX for the reasons outlined in paragraph 23.1.2.

These are reported below for both the METPOL (Table 81) and MAIN U.K.(Table 82) data:

TABLE 81: Showing The MRA Analysis For The Dependent Variable IES In The METPOL Survey (For 115 Cases).

VARIABLE	BETAS	T.	SIG. T.
AGE	-.13	-.71	.48
SERVICE	.12	.64	.52
GENDER	-.09	-1.07	.29
NAFF	.27	2.81	.01b
PRIME	.25	2.23	.03a
SECOND	.22	2.19	.03a
CHANGE	.02	.22	.82
ACCOM	.11	1.13	.26
DEVAL	.05	.44	.66
REDUCE	-.03	-.29	.77
AVOID	-.01	-.11	.91
SUPPORT	-.17	-1.60	.11
JUSTICE	-.06	-.62	.53
BENWOR	-.19	-1.84	.07
BENPEP	.14	1.47	.14
RANDOM	.07	.85	.39
WORTH	.15	1.54	.13
SELFCON	-.19	-1.99	.05a
CONTROL	.29	2.71	.01b
LUCK	.00	-.10	.92

Multiple R = .72	R Square = .52	R Adj. = .41
df (REG) = 20	df (RES) = 94	
F = 5.11	Signif F. = .0000	

a = p < .05; b = p < .01; c = p < .001

The IES variable (as a measure of multiple exposure to trauma) has a significant relationship (52% of shared variance) with beliefs associated with 'controllability of events' (CONTROL, Beta value .29) and NAFF (Beta value .27) as the best predictors of the criterion variable IES - all at the p < .01 level.

Primary appraisal (PRIME, Beta value .25); secondary appraisal (SECOND, Beta value .22), and the World Assumptions Scale for 'self-control' (SELFCON, Beta value -.19) were also significant. However, caution should also be exercised in interpreting these results, because of the small N:P ratio represents 'overfitting' of the data, due possibly to the sample size of the METPOL respondents.

What is important, however, is that negative affectivity appears in the equation, again, as a consistent feature of increased vulnerability to traumatic events (in this context) - but high exposure to trauma (IES) may mean that there is a poor perception of perceived self-control and controlling external events for the METPOL respondents (i.e. High IES means LOW beliefs associated with SELFCON and CONTROL - see Table 74b).

TABLE 82: Showing The MRA Analysis For The Dependent Variable IES In The MAIN U.K. Survey (For 446 Cases).

VARIABLE	BETAS	T.	SIG. T.
AGE	-.04	-.48	.63
SERVICE	.08	1.01	.31
GENDER	-.01	-.23	.82
NAFF	.28	5.71	.00c
PRIME	.31	6.54	.00c
SECOND	.17	3.87	.00c
CHANGE	.04	1.01	.31
ACCOM	.00	-.11	.91
DEVAL	-.07	-1.49	.13
REDUCE	.02	.56	.57
AVOID	.12	2.48	.01b
SUPPORT	-.06	-1.34	.18
JUSTICE	.08	1.70	.09
BENWOR	-.08	-1.55	.12
BENPEP	.08	1.44	.15
RANDOM	-.10	-2.53	.01b
WORTH	.02	.35	.73
SELFCON	-.00	-1.32	.19
CONTROL	-.01	-.27	.79
LUCK	-.02	-.38	.70

Multiple R = .65    R Square = .42    R Adj. = .39  
df (REG) = 20    df (RES) = 425  
F = 15.22    Signif F. = .0000

a = p < .05; b = p < .01; c = p < .001

In the above results table, the equation accounted for 42% of the shared variance for the IES variable. There are highly significant results for the variables for primary appraisal (PRIME, Beta value .31); negative affectivity (NAFF, Beta value .28); and secondary appraisal (SECOND, Beta value .17) were the best predictors of the criterion variable IES, at the p < .001 level.

The other variables accounted for were the cybernetic coping variable, 'avoiding the situation' (AVOID; Beta value .12) and a belief associated with the randomness of events (RANDOM, Beta value -.10) both at the p < .01 level.

The main findings for the METPOL and MAIN U.K. surveys, with respect to multiple exposure to trauma, thus seems to be an association with negative affectivity, primary and secondary appraisal. The fact that NAFF is so prominent a feature in the multiple regression analyses lends itself to a closer examination of NAFF as a criterion variable.

#### 24.1.2. Predictors Of State Mental Health And Trait Mental Health (Or Negative Affectivity).

The multiple regression analyses predicting general mental health (GHQ; Tables 79 and 80) revealed a linear relationship with negative affectivity (NAFF); changing the situation (CHANGE); accommodating desires to meet expectations (ACCOM); devaluing the situation (DEVAL); avoiding the situation altogether (AVOID) and notions of self-worth (WORTH). There was also a relationship between GHQ and multiple exposure to trauma (IES).

The MRA's predicting the impact of events (IES) also highlighted negative affectivity (NAFF) associated with primary (PRIME) and secondary appraisal (SECOND); avoidance of stimuli (AVOID); and the WAS (internal world assumptions) variables of self control (SELFCON) and CONTROL of events.

These results led to the conclusion that sequential trauma may be associated with negative affectivity (NAFF). But what other factors influence the increased vulnerability to work stress or negative affectivity, itself?

This question was used to generate the next MRA's using NAFF as a dependent variable.

#### 24.1.3. MRA Predicting Negative Affectivity.

A further analysis was performed using the direct entry method predicting negative affectivity (NAFF). These analyses left out the multiple exposure to trauma variable (IES); and the impact of event variables (INTRUDE; INTEX; AVOID and AVEX) as well as the general mental health (GHQ) measures. The MRA results are reported below for Table 83 (METPOL data) and Table 84 (MAIN U.K. Survey data):

**TABLE 83: Showing The MRA Analysis For The Dependent Variable NAFF In The METPOL Survey (For 116 Cases).**

VARIABLE	BETAS	T.	SIG. T.
AGE	-.24	-1.26	.21
SERVICE	.11	.55	.58
GENDER	.03	.34	.73
PRIME	.36	3.16	.00c
SECOND	.08	.76	.45
CHANGE	.00	-.02	.98
ACCOM	-.13	-1.27	.21
DEVAL	-.21	-1.87	.06
REDUCE	.22	2.19	.03a
AVOID	.18	1.68	.09
SUPPORT	.07	.59	.55
JUSTICE	.12	1.17	.24
BENWOR	.07	.64	.52
BENPEP	-.06	-.55	.58
RANDOM	.07	.79	.43
WORTH	.16	1.61	.11
SELFCON	.14	1.34	.18
CONTROL	-.15	-1.25	.21
LUCK	-.02	-.19	.84

Multiple R = .66    R Square = .44    R Adj. = .33  
df (REG) = 19    df (RES) = 96  
F = 3.97    Signif F. = .0000

a = p < .05; b = p < .01; c = p < .001

For the METPOL candidates there appears to be a linear relationship between negative affectivity (NAFF) - which accounted for 44% of shared variance - with primary appraisal (PRIME; Beta value .36, p < .001) as the best predictor of NAFF and reduction of symptoms associated with anxiety (REDUCE; Beta value .22 p < .05).

TABLE 84: Showing The MRA Analysis For The Dependent Variable NAFF In The MAIN U.K. Survey (For 452 Cases).

VARIABLE	BETAS	T.	SIG. T.
AGE	-.15	-1.87	.06
SERVICE	.13	1.61	.11
GENDER	-.05	-1.14	.25
PRIME	.17	3.67	.00c
SECOND	.06	1.49	.13
CHANGE	-.05	-1.18	.24
ACCOM	.07	1.51	.13
DEVAL	-.06	-1.36	.17
REDUCE	.05	1.19	.23
AVOID	.17	3.93	.00c
SUPPORT	.18	3.95	.00c
JUSTICE	.09	2.01	.04a
BENWOR	.05	.99	.32
BENPEP	.06	1.21	.22
RANDOM	-.10	-2.57	.01b
WORTH	.27	5.95	.00c
SELFCON	.04	.98	.32
CONTROL	.00	-.19	.85
LUCK	-.02	-.60	.55

Multiple R = .65	R Square = .43	R Adj. = .40
df (REG) = 19	df (RES) = 431	
F = 17.07	Signif F. = .0000	

a =  $p < .05$ ; b =  $p < .01$ ; c =  $p < .001$

Overall, the MAIN U.K. Survey picture remains fairly consistent with previous regression analyses. Here negative affectivity (NAFF) has a linear relationship (43% of shared variance) with the World Assumption Scale beliefs about self-worth (WORTH; the highest Beta value at .27), and the cybernetic coping scales, 'seeking social support' (SUPPORT; Beta value .18) and 'avoiding the situation' (AVOID; Beta value .17). Primary appraisal (PRIME; Beta value .17) was also a significant predictor of NAFF - all these results are at the  $p < .001$  level.

Also apparent are notions that negative affectivity (NAFF) is related to beliefs associated with the 'randomness of events' (RANDOM; Beta value -.10,  $p < .01$ ) and 'JUSTICE' (Beta value .09,  $p < .05$ ).

With regard to the above results (Tables 83 and 84), there seems to be a linear relationship between NAFF and the cybernetic coping scales associated with 'avoiding the situation (AVOID)'; 'symptom reduction (REDUCE)'; and 'social support seeking (SUPPORT)'. There also seems to be a relationship between beliefs associated with justice (JUSTICE), the randomness of events (RANDOM) and perceptions of self-worth (WORTH) in the METPOL and MAIN U.K. surveys.

## 25. THE RESEARCH OBJECTIVES.

As previously stated (see paragraph 10) five research objectives were framed during the early part of the research. Now that all the analyses for the INTERVIEW, METPOL and MAIN U.K. are concluded, it is prudent to review these objectives and answer them in light of the results as shown above.

For the sake of simplicity the research objectives are reproduced in full below, and attention will be drawn to the relevant paragraphs and tables to provide answers in support of the following:

1. Assess the impact of trauma events on general mental health.
2. Assess the relationship between measures of primary and secondary appraisal with general mental health and negative affectivity.
3. Assess dimensions of cybernetic coping in relation to trauma outcomes, such as the impact of events and general mental health.
4. Assess dimensions of coping in relation to internal world models (or world assumptions).
5. Assess the relative importance of state mental health and trait mental health (or negative affectivity).

### 25.1. Research Objective #1.

'Assess the impact of trauma events on general mental health'.

The INTERVIEW survey assessed multiple exposure to trauma events (paragraph 13.1.4. and Tables 12a and 12b) using the variables MEXP (for multiple exposure - coded as '0=None'; '1=Once or twice'; or '3=Three or more') and post-hoc comparisons were conducted for GHQ and NAFF.

The results indicated that (for GHQ) there were significant differences between Group 1,3 (once or twice; three or more times') and Group 0 ('none'). For negative affectivity (NAFF) there were significant differences between Group 1 ('once or twice') and Group 0 ('none').

Also Table 9 showed a  $\chi^2$  (2x3) contingency table for officers and civil staff who were exposed to trauma, 'none', 'once or twice' or, 'three or more times'. The results indicated that police officers were more likely than would be expected by chance to experience trauma, 'three or times' - than civil staff, who were less likely to experience trauma 'three or more times'.

The METPOL survey (Table 36) also revealed a correlation between IES (multiple exposure to trauma; coded as '0=none', '1=once', '2='twice', and '3=three or more times) and GHQALL ( $r = .50$ ,  $p < .001$ ). Table 35 also reveals that 31% of the METPOL respondents endorsed at least three items associated with GHQ.



Table 77a, also shows moderate correlations with GHQ and measures associated with work related problems and outcome measures such as, the frequency and intensity of intrusion and avoidance (including PTSD indices for the METPOL group), and primary and secondary appraisal.

Lastly, when MRA's were calculated with GHQ as a criterion (or dependent variable), Table 79 produced a linear association for GHQ with NAFF; 'accommodating desires to meet expectations' (ACCOM); 'devaluing the situation' (DEVAL); and 'avoiding the situation' (AVOID).

Table 80 produced a linear association of GHQ with IES (i.e. exposed to trauma either, not at all, once, twice or three or more times); negative affectivity (NAFF); 'changing the situation' (CHANGE); 'avoiding the situation' (AVOID); and a belief that one has self control (SELFCON).

These results demonstrate the notion that multiple exposure to trauma events has some effect on general mental health. Usually it is the case that a high frequency of trauma exposure leads to high GHQ scores, indicating that for some of the respondents, more incidents involving work stress or trauma may lead to poorer mental well being.

#### 25.1.1. Research Objective #2.

'Assess the relationship between measures of primary and secondary appraisal with general mental health and negative affectivity'.

In paragraph 23.1.2. above, for the METPOL respondents, Table 77a revealed moderate correlations with GHQ (Row 17), primary appraisal and secondary appraisal.

In particular, GHQ/PRIME was correlated at  $r = .42$  and GHQ/SECOND was correlated at  $r = .33$  - both at the  $p < .001$  level. Secondary appraisal was correlated with primary appraisal at  $r = .48$ ,  $p < .001$ .

For the MAIN U.K. respondents (paragraph 23.1.6. and Table 78a, Row 13), the research revealed moderate, but statistically significant correlations between GHQ, primary ( $r = .33$ ) and secondary ( $r = .28$ ) appraisal. NAFF (Row 14) produced moderate correlations with primary ( $r = .39$ ) and secondary ( $r = .29$ ) appraisal and GHQ ( $r = .56$ ) - all at the  $p < .001$  level.

The results also used multiple regression technique to predict GHQ independently and these results are shown in Tables 79 and 80 above - both of which entered NAFF into the equation as the highest predictor.

However, the main evidence for the negative affectivity (NAFF) variable was gleaned from the MRA's for the METPOL survey (Table 83) which revealed linear associations with primary appraisal (PRIME; Beta value .36,  $p < .001$ ) as the best predictor of NAFF and reduction of symptoms associated with anxiety (REDUCE; Beta value .22  $p < .05$ ).

In Table 84, the MAIN U.K. survey revealed a linear association with NAFF (as the predictor) with primary appraisal (PRIME; Beta value .17) amongst others.

However, the highest predictor of NAFF was the World Assumption Scale of, 'self-worth' (WORTH; Beta value .27) - which might indicate that negative affectivity is linked with low self esteem.

The cybernetic coping scales, 'seeking social support' (SUPPORT) and 'avoiding the situation' (AVOID) were also represented as was internal world beliefs associated with the 'randomness of events' (RANDOM) and the 'world as a just place' (JUSTICE).

The above results indicate that the relationship between primary and secondary appraisal is an important one. Primary appraisal has a particular effect on how respondents initially assess multiple exposure to trauma: whether by relating it directly to general mental health and negative affectivity, or by using some cybernetic coping techniques to enable them to cope with trauma as it is presented.

#### 25.1.2. Research Objective #3.

'Assess dimensions of cybernetic coping in relation to trauma outcomes, such as the impact of events and general mental health'.

Paragraph 23.1.4. above, explored the correlation tables for minor associations with the 6 cybernetic coping variables; IES - as a measure of frequency of trauma; and GHQ within the METPOL and MAIN U.K. data.

The Impact of Events variable for the MAIN U.K. data (Column 5) produced only two low correlations for, 'symptom reduction' and 'social support seeking'.

Minor associations were demonstrated between the cybernetic coping variables GHQ (Column 13) and, 'accommodating desires to meet expectations' (ACCOM); 'devaluing the situation' (DEVAL); 'avoiding the situation' (AVOID); and social support seeking' (SUPPORT) - ranging between  $r = .13$ ,  $p < .01$  and  $r = .29$ ,  $p < .001$ .

For the negative affectivity variable (NAFF, Column 14, Table 78a), there were moderate correlations with, ACCOM; DEVAL; AVOID; 'symptom reduction' (REDUCE); and SUPPORT ranging between  $r = .19$  and  $r = .35$  at the  $p < .001$  level.

The METPOL correlations (Table 77a, Column 17) also produced associations for GHQ with 'changing the situation' (CHANGE); 'accommodating desires to meet expectations'; 'avoiding the situation'; and 'symptom reduction'.

There were no significant correlations for the six cybernetic coping variables and exposure to trauma in the METPOL data (IES; Table 77a, Column 5).

This provides some evidence for the research hypothesis that general mental health has implications for the type of coping techniques used by the METPOL and MAIN U.K. respondents. Though the evidence is not conclusive, it seems from the correlation results that the higher the score in GHQ (i.e. poorer mental well being); the more coping techniques employed.

#### 25.1.3. Research Objective #4.

`Assess dimensions of coping in relation to internal world models (or world assumptions)´.

This was a difficult research dimension to assess for the reasons outlined in the discussion below.

But nevertheless, in paragraph 23.1.5., the results demonstrated that some relationships exist between dimensions of cybernetic coping and the World Assumptions Scale. For example, the belief associated with low self esteem (WORTH) produced correlations with, `avoiding the situation´; `accommodating desires to meet expectations´; and, `devaluing the situation´.

Other combinations of the World Assumption Scale have been reported in the above correlation results, and some of the MRA Tables 80, 81, 82 and 84 above, which tend to indicate that, to some extent, internal world models have an effect on the coping techniques that the METPOL and MAIN U.K. respondents use.

To what extent internal world models strictly influence, appraisal and coping itself, may be a matter for future research, which was outlined in paragraph 23.1.5. above. The main difficulty is that the Janoff-Bulman (1989) World Assumption Scales may perhaps be too similar to constructs involved with `problem-focused´ and/or `emotion-focused coping´ (Lazarus 1981), or `locus of control´ (Rotter 1966; Spector and O´Connell 1994) - since they deal with, possibly abstract belief systems: but which do not tie directly into tangible techniques used in coping itself (i.e. what Edwards and Baglioni 1993 refer to as `the construct validity of coping´).

Again, these ideas will be expanded upon later, during the discussion section of Results Four.

#### 25.1.4. Research Objective #5.

`Assess the relative importance of state mental health and trait mental health (or negative affectivity)´.

In paragraphs 24.1.2. and 24.1.3. above the results pointed to the notion that when the MRA's predicting GHQ were conducted, negative affectivity was entered into the equation. Where the MRA's were calculated predicting multiple exposure to trauma (IES), negative affectivity was also entered into the equation.

Lastly, in Tables 83 and 84 above, for the METPOL and MAIN U.K. surveys, when NAFF was used as a dependent variable itself, there seemed to be a linear relationship between negative affectivity; primary appraisal; and `symptom reduction (Table 83) and, the cybernetic coping indices of, `seeking social support´; `avoiding the situation´; and primary appraisal (Table 84).

Further, Table 84 revealed the NAFF was seen to be associated with beliefs, `that the world is an unjust place (JUSTICE)´; `that things happen more than by chance (RANDOM)´; and a belief associated with, `low self-esteem (WORTH)´.

Thus, negative affectivity appears to be strongly associated with general mental health (state mental health) and multiple exposure to events. Also negative affectivity (as an index of trait mental health) predicts associations with internal world models.

Since the results for the NAFF variable seem to be consistent within the multiple regression analyses and other results within the METPOL and MAIN U.K. variables (see paragraph 16.1.11 and 20.1.12 and Table 72) - Research Objective #5 has highlighted its relative importance to exposure to trauma, cybernetic coping and subsequent outcomes.

Future studies then might look at the concept of negative affectivity, less as a predictor of neuroticism, and more of a predictor of low self esteem and self worth. Also, taking into account the cybernetic coping techniques employed by the METPOL and MAIN U.K. respondents, indicates (albeit weakly) that negative affectivity may have a detrimental effect the initial appraisal of the trauma, subsequent coping styles, and internal world views.

## **26. DISCUSSION OF RESULTS FOUR.**

Within MRA analyses a causal relationship cannot be demonstrated. High negative affectivity (NAFF; Parkes 1990) alone does not induce people to disregard notions about what fate has in store for them, or personal beliefs about a just world. Nor does it lead to a depreciation of ones self worth, or the assessment of trauma events. It cannot hope to influence the avoidance of trauma situations, or lead to seeking the comfort of others in times of distress.

Since the influence of negative affectivity (NAFF) seems to be the main finding of the MRA results in Tables 79 to 84, and particularly in relation to multiple exposure to trauma (IES) and general mental health (GHQ) - by examining this variable separately (Tables 83 and 84), it was reasoned that NAFF has an influence which is more than merely coincidental.

Watson and Clark (1964) view negative affective as a predisposition towards low self worth and negative emotionality. Parkes (1990) also, views negative affectivity within the work environment as exerting an influence on mental well being (as well as physical health).

But how does negative affectivity affect police officers?

### **26.1. Negative Affectivity And Police Work.**

The MAIN U.K. survey revealed that negative affectivity (NAFF) had a minor, but statistically significant impact on attitudes towards: tedious administration duties and paperwork; reporting traffic accidents; dealing with sudden deaths; the abuse and care of children; and domestic violence situations (Table 76).

In the METPOL Survey (Table 77a, Row 18), there were moderate correlations between negative affectivity and the officers' own domestic problems; frequency and intensity of intrusion and avoidance; PTSD indices of intrusion, avoidance and hyperarousal; primary and secondary appraisal; and more importantly, general mental health.

In the MAIN U.K. survey (Table 78a, Row 14) also, negative affectivity produced correlations with multiple exposure to trauma; work related problems; frequency and intensity of intrusion and avoidance; primary and secondary appraisal and general mental health.

Further MRA analyses highlighted the utility of general mental health (GHQ) as a predictor of, amongst others: negative affectivity; multiple exposure to trauma; and the cybernetic coping strategies of, 'accommodating desires to meet expectations'; 'changing the situation'; or 'avoiding the situation'.

GHQ also predicted some linear relationships with internal world assumptions associated with beliefs about 'self-worth' (Tables 79 and 80).

With regard to the MRA analyses predicting a linear association with multiple exposure to trauma (IES; Tables 81 and 82), there were relationships between negative affectivity; primary and secondary appraisal; the coping strategy of 'avoiding the situation'; and beliefs associated with self-confidence and control over events.

Finally, when MRA analyses were finally used to predict negative affectivity (NAFF), alone (Tables 83 and 84), there appeared to be a linear association with primary appraisal; and the cybernetic coping strategies of, 'symptom reduction'; 'avoiding the situation' and 'seeking social support'. Also, beliefs associated with the randomness of events and self-worth appeared in the equation to predict NAFF.

These research results perhaps cautions practitioners to take careful note of instances of multiple exposure to trauma and the impact that it has on beliefs associated with a just world, the randomness of events, notions of self worth, and increased negative affectivity.

Consideration must also be given to reviewing a client's history for disorders associated with general mental well-being (context-free mental health), neurotic symptoms, sleep and appetite disturbances and so on.

Poor or inadequate attempts at coping might be apparent: by avoiding situations (AVOID); constantly changing desires to meet expectations (CHANGE); devaluing personal expectations (DEVAL); a reluctance to seek social support from other persons (SUPPORT); or by making minimal attempts at reducing the symptoms of the distress (REDUCE).

Changes in social or psychological functioning are likely to occur when an individual's belief systems seems at odds with previous behaviours connected with primary and secondary appraisal of trauma events, and the coping strategies employed.

#### **26.1.1. Multiple Trauma Exposure, Primary Appraisal, And Implications For Coping.**

Horowitz (1993) argues that traumatic events can be associated with intrusive ideas accompanied by unbidden feelings (i.e. intrusion).

Repetitive trauma (i.e. multiple exposure) experiences can be characterised by avoidance or denial states; psychogenic numbness; or general unresponsiveness and reduced involvement with the external world (i.e. 'avoidance').

Research Objective #2 results for the METPOL respondents (Table 77a) indicates that primary appraisal had fairly moderate associations with domestic related problems. In turn, the frequency and intensity of intrusion and avoidance was also affected. In particular, medium correlations for primary appraisal were reported with INTRUDE; INTEX; AVOID and AVEX at the  $p < .001$  level. Recall also that the METPOL candidates rated their traumatic experience alongside PTSD indices of intrusion, avoidance and hyperarousal - all of which were correlated at the  $p < .001$  level.

The MAIN U.K. correlations (Table 78a) with PRIME indicated that there was a minor association with multiple exposure to trauma events ( $r = .13$ ,  $p < .01$ ), and both frequency and intensity of intrusion and avoidance (all at the  $p < .001$  level).

Multiple regression analyses predicting IES, in particular, indicated a linear relationship with primary appraisal for the METPOL survey (Table 81,  $p < .05$ ) and MAIN U.K. survey (Table 82,  $p < .001$ ).

When predicting negative affectivity (NAFF) in both surveys (Tables 83 and 84) a linear relationship with primary appraisal was revealed at the  $p < .001$  level.

These results reflect the idea that how one reacts, initially, to a traumatic event might determine how one copes subsequently. Since negative affectivity figured in all the multiple regression analyses, it was tentatively concluded that there seemed to be a predisposition towards low self worth, or self esteem (Watson and Clark 1964; Parkes 1984 and 1990), perhaps leading to impoverished appraisal strategies and subsequent intrusion, avoidance and poor mental health.

Further evidence of the coping strategies involved in negotiating general mental health (GHQ), revealed associations with: 'changing the situation'; 'accommodating desires to meet expectations'; 'devaluing the situation'; and 'avoiding the situation'. These coping strategies employed by the police, when predicting multiple exposure to events, also revealed moderate associations with, 'avoiding the situation'. And when predicting negative affectivity, there were moderate associations between NAFF and 'symptom reduction'; 'avoiding the situation' and 'seeking social support'.

In paragraph 7.1.5. above, this dissertation referred to the work by Ostell (1991) and Edwards and Baglioni (1993). There is some evidence from the above results, that a problem solving approach may have been used by the METPOL and MAIN U.K. respondents - to ensure that cognitive processes extracted information from the internal and external environment, to subsequently influence the behaviour of an individual.

Janoff-Bulman (1985), in particular argued, that coping involved, 'direct action' in order to: redefine the event; find meaning; change behaviours associated with physical reminder of the trauma; and seek social support from others to re-establish self-esteem.

In the case of the police respondents, there is some evidence that coping styles - i.e. moderate correlations with notions of 'self-worth' and 'avoiding the situation' (Table 77b,  $r = .36$ ,  $p < .001$ ; Table 78b,  $r = .34$ ,  $p < .001$ ) - may lead to the conclusion that officers may perceive that low self esteem may impact upon future avoidant behaviours.

In other words, poor self regard may seem to influence coping avoidance and a possible deferment of the trauma to another time - when the officers' psychic strength is at a premium for a more 'problem solving' approach to coping (see Aldwin and Revenson (1987) and paragraph 7.1.; Bloch (1991) and paragraph 6.2.5).

The MAIN U.K. correlations (Table 78b) also produced minor correlations between 'self-worth' with 'accommodating desires to meet expectations and 'devaluing the situation - indicating that low self esteem involves a process whereby Officers try to adjust their perceived expectations of how well they are coping, by, perhaps, trying to put the incidents and their own self esteem into some perspective.

With regard to the MRA's predicting general mental health (GHQ; Table 80), there was also a minor association with 'self-worth' - which indicates also that low self esteem may possibly influence well being.

The dependent variable for multiple exposure to trauma (IES; Tables 81 and 82) produced an association with 'self-control' and 'controllability of events'. And the MRA for the dependent variable NAFF (Table 84), produced a linear association with, 'the randomness of events' and 'self-worth'. This may also point to the notion that any exposure to trauma is perceived as encompassing a loss of self restraint, or control over what is happening. This in turn may influence negative affectivity, i.e. self esteem and the belief that trauma happens to people by chance.

These results point to the idea that the intrapsychic assumptions of 'self-worth'; 'self-control'; 'randomness of events'; and 'control over events' - may help to negotiate coping strategies by reducing the discrepancy between actual and desired states (Edwards and Baglioni 1993).

Again, paragraph 6.2.8. pointed to the idea that dysfunctional attitudes form where there is increased vulnerability to trauma. In particular, Beck et al. (1991) view unstable cognitive schemas (i.e. beliefs about self-worth and self-control) as influencing depressive states of mind. This may mean, in the case of the METPOL and MAIN U.K. respondents, that they may become more vulnerable to dysfunctional thinking as they enter a traumatic encounter, or experience further multiple traumatic events.

In paragraph 7.2.4. above, this dissertation also explored the 'role of denial' in relation to internal beliefs about the world. Janoff-Bulman and Timko (1987), for example, postulate that the process of denial may moderates perceptions about external reality and act as an adaptive mechanism for defence: in effect, merging external reality into a new inner model of reality.

Hence a belief that, 'things happen to people more than by chance (RANDOM)' and that, 'one has no self-control (CONTROL)', in relation to multiple exposure to trauma (IES; Tables 81 and 82) may serve to impoverish or reduce adaptive coping and lead to further dysfunctional assumptions about the world and people.

Thus, inner world models may have a usefulness for either adaptive or maladaptive coping.

### 26.1.2. The Usefulness Of Internal World Models And Their Implications For Coping.

Dewe, Cox and Ferguson (1993) raise some prominent issues with respect to the measurement of coping - i.e. 'coping style' as trait-like combinations of cognitions and behaviours and 'coping behaviours' in relation to what a person does in a particular situation.

Dewe (1991b) points out that there are differences in the meaning individuals give to events, the measurement of meaning, and the assumption that a negative event will always evoke negative stressors.

Parkes (1990) also, reports that direct coping would moderate relations between work stress and mental health outcomes, but adds that suppression (or emotion-focused coping) may be associated with either lower levels of perceived distress or a tendency to under report experienced symptoms.

In a similar vein, Janoff-Bulman's (1989) World Assumption Scales reveal 'like' structures to 'perceived locus of control' rather than actual control (Parkes 1989; Daniels and Guppy 1992). Thus, the 32 WAS items are difficult to differentiate between each other - leading to some difficulty of interpretation between self-control versus control over events, or luck versus randomness of events, for example.

These issues apart, some associations between coping and world assumptions have already been partially demonstrated in the above correlation matrices (Tables 76, and 77a to 78b) and future research should pay closer attention to these indices of trauma, since they seem to be inter-related with GHQ, negative affectivity and the impact of events scales.

In paragraph 17.1.2. of this dissertation an evaluation of 'trauma signature theory' was outlined.

And although, the one-way analyses of variance results for the METPOL respondents (see Results Two) proved inconclusive, the MAIN U.K. results (see Results Three, paragraph 21.1.) provided some minor evidence for the discussion and value of internal world models as additional coping strategies.

Whilst these results were moderate and the relationships between multiple exposure to trauma, coping and world assumptions remained unclear - without further research, it was shown (Tables 23,25,27 and 29) that intrusion may be more keenly experienced than avoidance, and that avoidance may be negotiated within the level of trauma signatures.

This dissertation argued, for example, that avoidance was integrated into traumatic schema to assist in the speedy resolution of the trauma itself (Janoff-Bulman and Timko 1987). However, the MRA results (Tables 80, 81 and 84) only partially demonstrated a linear association between internal world models, general mental health, the frequency of trauma exposure and negative affectivity.



## 27. SUMMARY.

There is some evidence of the effect that negative affectivity has on indices of the impact of events, particularly multiple exposure to trauma, and context free mental health. It also has bearing on issues surrounding the use of coping strategies.

Primary and secondary appraisal mechanisms are also common themes. It is as if the internal beliefs associated with the randomness of events, self control, self worth and a sense of justice, help to negotiate the initial impact of trauma, and the means of coping with it.

The correlation matrices reveal fairly consistent findings associated with trauma involvement - comprising of an almost 'classic' response to: the event, primary appraisal, secondary appraisal, coping (by using various means) and the presence of symptoms associated with poor psychological well-being and negative affect states.

Further discussion of the three surveys and the four results sections, in relation to the literature review will now follow on from this section.

## MAIN DISCUSSION.

### 28. DISCUSSION.

This section draws together common strands from the previous results and discussion sections. Much of this discussion chapter also draws on the pertinent literature, together with additional information from the Appendices.

For example, Appendix "A" reproduces the Interview Survey questions and anecdotal responses. Appendix "C" contains case scenarios and the Impact Of Event (IES) referents for the 134 Metropolitan Police respondents.

Also, this discussion is divided into several distinct sections, summarising the results and discussion for the following:

- Section One: Traumatic Encounters And The Frequency Of Exposure To Trauma.
- Section Two: The Role Of Primary And Secondary Appraisal In Relation To Multiple Exposure To Trauma.
- Section Three: Coping Characteristics.
- Section Four: The Role Of World Assumptions.
- Section Five: Negative Affectivity.
- Section Six: The Empirical Argument For The Existence Of Traumatic Signatures.

Finally, recommendations for future research are highlighted for theoreticians and practitioners, with particular emphasis on the exploration of links between coping and internal world models.

### 29. SECTION ONE: Traumatic Encounters And The Frequency Of Exposure To Trauma.

One could be forgiven for thinking that police work and trauma are synonymous with each other. But this is not as clear cut as one would expect (Greller, Parsons and Mitchell 1992; Hillas and Cox 1986). For example, the results of all three surveys indicate that both police officers and civil staff are subject to organisational stressors, but that police officers are additionally exposed to trauma - whereas this is only true for their civil staff colleagues in certain circumstances (i.e. photographers and scenes of crimes officers).

Some 11% (N=15) of the METPOL respondents reported three or more trauma events, compared with 12% (N=62) of the MAIN U.K. sample who reported three or more.

Also, the results sections (paragraphs 16.1.3. for the METPOL results and 20.1.3. and for the MAIN U.K. results and Appendix "C") indicate that the length of time that trauma has been experienced by all groups has remained relatively constant. The trauma event was reported to have occurred for some 2-3 years prior to the survey period. Horowitz et al's (1979) own study reveals that his clients had experienced trauma for some 2-3 years also.

The case scenarios for the METPOL respondents are presented in Appendix "C" (the IES referents are in capital letters) and range from, 'an eye operation and doubts about its success' to a 'lack of recognition following an arrest of a person in possession of a loaded shotgun who had just murdered his wife'.

Equally, in the METPOL and MAIN U.K. surveys, the IES referents revealed that the elicited trauma events consisted of both work trauma and stress and domestic related trauma and stress. There were no clear patterns of trauma related experience alone.

The METPOL survey (paragraph 16.1.1.; Table 18) also suggests that 10% of police officers scored 4 and 5 ('has often/very often applied') on five of all the work related trauma items (WORKTR). And for the MAIN U.K. respondents (paragraph 20.1.1.; Table 51), some 10% scored 4 and 5 on all five of the WORKTR related items. Whilst the results for the non-trauma related stressors (NONTRAU) were comparable, it was surprising to note that work problems featured fairly prominently in both these studies. Domestic issues in the METPOL data and that work related issues (in the MAIN U.K. data) revealed that work and home stressors were as important to the Officers as trauma-related issues (Brown and Campbell 1990; 1994).

Further evidence for the existence of cumulativeness of trauma and work stress, has been gleaned from all three surveys: The Interview survey, for example, highlights that some police officers have experienced more trauma events during their work life than civil staff (Table 6, para 13.1.1.). Of the Interview survey respondents, 54% (N=27) of police reported three or more trauma experiences, compared with only 28% (N=11) of the civil staff. Chi-square tests (Table 9) revealed that police officers were more likely than by chance to experience three or more distressing events than their civil counterparts. These results emphasise the role of frequency, duration and demand in traumatic incidents (Norris 1992; Dewe 1991a).

Previous research by Anson and Bloom (1988) and Bonifacio (1991) also highlight that police stress is not simply a result of hassles associated with work alone, but relate to impersonal bureaucracy, poor management decisions and dealing with a dispassionate and violent public. Thus, a combination of stress, inside and outside of police work, thus seems to accumulate and then degenerate into trauma experience. Davidson and Foa (1991), also point out that one event alone does not contribute to PTSD symptomatology, but that the experience of multiple stressors could also be defined as potentially traumatic.

The METPOL survey, reflects the above research, particularly with regard to the issue of cumulativeness and the additional work problems reported. For example, Table 19 confirms that 41% (N=55) could recall an additional 5 work problems occurring during the period of the survey. Farmer (1990) and Stearns and Moore (1990) argue that cumulativeness (i.e. the progressive experience of stress and trauma) might contribute to 'burnout' and 'depersonalisation' and thus leads to PTSD like symptomatology.

The correlation matrices for the MAIN U.K. survey thus predicted minor correlations with the multiple exposure to trauma variable (IES; Table 78a, Column 5) for work related problems (or domestic problems in the METPOL sample, Table 77a) - but other dimensions of frequency and intensity of intrusion; secondary appraisal mechanisms; negative affectivity; the cybernetic coping strategy, 'seeking social support' and belief associated with the randomness of events were also apparent - leading to the tentative notion that there are complex dimensions of work and stress effects associated with appraisal and outcomes.

The correlation matrices in Tables 77a to 78b also indicate the possible influence that primary and secondary appraisal has on trauma indices of intrusion and avoidance and negative affectivity (see also paragraph 20.1.12. and Tables 68 to 72).

### **29.1. Impact Of Events And Intrusion And Avoidance.**

In previous discussions (paragraph 21.1.), it was argued that frequency and intensity of avoidance would have less of an impact than frequency and intensity of intrusion. Avoidance, in this dissertation, was discussed as a dissociative mechanism of defence (Bloch 1991) as was depersonalisation and burnout (Shilony and Grossman 1993). Conversely, intrusion was viewed as a means of working through the impact of the trauma (i.e. by incorporating anomalous information into a 'trauma signature' - which will be discussed in Section Six below).

The data from both these studies partially supports this notion (see also paragraphs 17.1.1. and 21.1.). For example, it was argued that more items of frequency and intrusion would be endorsed by the respondents: thus 44% of the MAIN U.K. respondents, reported 3 or more items associated with frequency of intrusion, and 38% reported 3 or more items for intensity of intrusion. In the METPOL survey, an overall 46% of the respondents reported frequency of intrusion and 39% reported items associated with the intensity of intrusion (see also Dewe 1991a).

Comparably, fewer items of frequency of avoidance and intensity of avoidance were accounted for in both samples. For example, the METPOL data noted that 28% of the respondents reported frequency of avoidance and 19% endorsed items associated with the intensity of avoidance.

In the MAIN U.K. survey 27% of the subjects reported 3 or more items associated with the frequency of avoidance and 24% reported 3 or more items associated with the intensity of avoidance.

Also, where frequency and intensity of intrusion and avoidance are calculated together, the threshold scores indicating PTSD symptomatology (Neal et al. 1994) in the METPOL survey, revealed that 30% of the respondents endorsed a total IESTHRESH score of 38 or more (see paragraph 16.1.6. and Table 30). Whilst, 28% of the MAIN U.K. respondents endorsed a score of 38 or more (see paragraph 20.1.6. and Table 61).

The evidence from the IESTHRESH scores seems to be broadly supportive of the nature and extent of trauma problems experienced. Studies reported by Davidson et al. (1986) and Gersons (1989) and Gersons and Carlier (1990; 1992) also broadly support the notion that the more trauma is experienced, the more it is likely that PTSD symptomatology will be present.

Future research might attempt to explore whether intrusion is more keenly felt by clients and/or respondents and whether avoidance is more than mere repression or denial.

#### **29.1.1. IES Appraisal And Outcomes.**

Appendices "A" and "C" firmly indicate that police workers are likely to experience multiple trauma events than single ones. Precisely what effect the long term exposure to trauma events has, is also worthy of additional and longitudinal research (Frese and Zapf 1988; Burke 1989).

A further survey involving time-series measures was contemplated during this survey period, but was frustrated due to time constraints and lack of application by the population sample. These were probationary officers with only a few months experience of patrol, who were undergoing training, and the intention was to measure the impact of trauma at 6 monthly intervals up to the end of their 2 year probationary period. However, young officers concentrate hard on learning their craft and were disinclined to take part at this time.

However, the multiple regression analyses (paragraph 23.2. - 23.2.5 and Tables 79 to 84) highlight that multiple events may have some effect on primary and secondary appraisal mechanisms and negative affectivity. This might suggest that internal models of the world are also likely to alter over long periods of time and that coping processes might move from positive and problem-focused attempts at coping, to more negative emotion-focused attempts (see Epstein and Katz 1992 and Chapter 7 for discussion).

Results Section Four (paragraph 23.1.2.) assessed the relationships between primary and secondary appraisal and the outcome measures of general mental health (GHQ) and negative affectivity (NAFF), with particular emphasis on frequency of exposure to trauma events (Tables 81 and 82) - see also Burke, Brief and George (1993); Parkes (1990); and Spector and O'Connell (1994).

In Tables 77a and 77b for the METPOL survey, for example, it was partially demonstrated that primary appraisal was correlated with: domestic problems; frequency and intensity of intrusion avoidance; the PTSD measures of intrusion, avoidance and hyperarousal; general mental health; and negative affectivity.

Secondary appraisal was correlated moderately with primary appraisal; domestic problems; frequency and intensity of intrusion and avoidance; and PTSD intrusion, avoidance and hyperarousal.

The Tables (78a and 78b) for the MAIN U.K. respondents revealed fairly moderate correlations clustering around the variables associated with: work problems; the frequency and intensity of intrusion and avoidance; primary and secondary appraisal; general mental well-being and negative affectivity.

Of significance however, is the results for the MAIN U.K. correlations which reveal moderate correlations with the multiple exposure to trauma (IES) itself and: work related problems; frequency and intensity of intrusion and avoidance; primary and secondary appraisal; GHQ; negative affectivity; the cybernetic coping indices of, 'seeking social support'; 'symptom reduction'; and the World Assumption Scale of 'beliefs associated with the randomness of events'.

The MRA's predicting multiple exposure to trauma (IES; Table 81), revealed that primary and secondary appraisal; negative affectivity; and the WAS assumptions of 'self-control' and 'control over events' were entered into the equation, for the METPOL respondents.

For the MAIN U.K. respondents, exposure to trauma (IES; Table 82) revealed that: primary and secondary appraisal; negative affectivity; and the coping process of 'avoiding the situation' were entered into the equation.

Finally, attention is drawn to the one-way ANOVAs performed across groups defined by frequency of exposure to trauma (see Tables 40 to 44 for the METPOL survey and Tables 68 to 73 for the MAIN U.K. survey).

In these analyses there was some evidence to suggest that avoidance and intrusive thoughts were significantly more frequent in officers who were exposed to trauma, once, twice, or three or more times. There was some (weaker) evidence to suggest that higher frequency trauma was linked with more serious symptomatology. Additionally, significant differences in relation to negative affectivity, as well as world assumptions (i.e. the randomness of events occurring) were also observed across the groups defined by multiple exposure to trauma.

The above results partially support the hypothesis that multiple exposure to trauma, seems to have a detrimental effect on the initial impact of the event (primary appraisal); marshalling ones resources to cope with the event (secondary appraisal); general mental health (GHQ) and a tendency towards negative affectivity (NAFF) (Burke, Brief and George 1993).

### **30. SECTION TWO: The Role Of Primary and Secondary Appraisal In Relation To Multiple Exposure To Trauma.**

Cognitive appraisal is a key factor in coping processes (Parkes 1990) and is discussed here in relationship with evaluating multiple trauma events. In an adaptive or maladaptive sense (Rippeto and Rogers 1987), primary appraisal is likely to remain a consistent feature of the trauma signature construct (see Section Six).

In other words, the magnitude of the trauma may be relatively unimportant as a stimulus referent, but may predispose the individual to master, or fail to control, the other processes involved in coping (i.e. the magnitude of the trauma is not as important as the management of the trauma).

Prolonged and repetitive exposure to trauma using adequate coping resources, associated with 'traumatic signatures' - may either reduce the magnitude of psychic trauma for similar events and result in fewer symptoms, or may serve to reinforce PTSD like symptoms.

#### **30.1. Primary Appraisal.**

Since 'primary appraisal' here, refers to those dimensions such as, not achieving an important goal; losing the respect of someone important; appearing to be incompetent; feeling embarrassed; appearing unsupportive; difficult to get along with; and appearing to be in the wrong (Dewe 1991b; Folkman et al. 1986) - it could be argued that the police respondents should endorse these items to achieve a low score (i.e. essentially appraising that situations encountered are less of a threat to self esteem).

Partially supporting this notion are the multiple regression analyses (Tables 83 and 84), which indicated that primary appraisal; and the cybernetic coping strategies of, 'symptom reduction'; 'avoiding the situation' and 'seeking social support' were entered into the equation predicting negative affectivity. In other words, if the police respondents did not appraise trauma situations in a positive light and showed poorer coping strategies, then they may be likely to experience higher levels of negative affectivity.

Dewe (1991b) reports that primary appraisal is a significant contributor to explaining the variance in other 'discomfort' measures (such as context-free mental health or GHQ scores) and tends to support the growing recognition that how a person thinks in a particular situation is the key to determining how one copes in that situation. In other words, primary appraisal may have a major impact on the coping function.

Also, the primary appraisal items (paragraph 23.1.2.) moderately correlated with either domestic problems (for the METPOL group), or work problems (for the MAIN U.K. group); and indices of frequency and intensity of intrusion and avoidance (for both surveys).

The METPOL group additionally produced fairly moderate correlations for primary appraisal and PTSD indices of intrusion, avoidance and hyperarousal. Low GHQ and NAFF scores also featured in the main correlation tables for the two groups (see METPOL Tables 77a and 77b; MAIN U.K. Tables 78a and 78b).

The MRA analyses predicting frequency of exposure to trauma (IES) and negative affectivity (NAFF) - see Tables 81 to 84 - entered either primary and/or secondary appraisal into some of the equations. This may provide further evidence (although not conclusively) that if the initial assessment of trauma is not wholly effective, then subsequent intrusive thoughts and images and avoidant behaviours, may deleteriously effect coping techniques and other outcome measures (McFarlane 1992). Poor appraisal techniques and the impact of intrusion and avoidance may also, perhaps, lead to vulnerability to post traumatic stress disorder (Horowitz et al. 1980; Koretzky and Peck 1990).

Again, some supporting evidence for the importance of the role of primary appraisal mechanisms may be found from previous studies by Larsson, Kempe and Starrin (1988); Lazarus and Folkman (1984) and Folkman et al. (1986).

#### **30.1.1. Secondary Appraisal.**

With regard to secondary appraisal which is linked with coping, Table 33 above revealed useful secondary appraisal choice (SECEX) items associated with: 'One that I must accept or that I just got used to'; 'One where work bureaucracy made it difficult to deal with'; and 'One where I needed to know more information before I could act'. These were additional choices made by the respondents to determine whether the nature of the police bureaucracy may have 'interfered' in subsequent coping.

The SECEX results could possibly indicate that tension might exist between marshalling ones' resources to cope with trauma and a general acceptance that trauma is part and parcel of police work. It was further suggested, in light of these results, that police bureaucracy may have influenced secondary appraisal and coping.

Secondary appraisal (i.e. marshalling resources to cope with trauma) is a different matter. Tables 77a to 78b indicate that secondary appraisal may significantly relate to general mental health (GHQ) and negative affectivity (NAFF).

Dewe (1991b, pp 343) states that the secondary appraisal variable, 'one that I must accept or that I just got used to (SECOND2)' moderates the relationship between the coping strategy, 'passive attempts to tolerate the effect' - i.e. 'taking a day off; drinking more tea or coffee; leaving your desk and go to another part of the office for a while; spending some time daydreaming; smoke more; try to prevent others from finding out the pressures that you are under' and 'tension'.

Thus, secondary appraisal, it is suggested here, has highlighted that there may be some influence involved in coping. In other words, 'one that I could change or do something about' and 'one that I must accept or that I just got used to' might reflect other significant moderating affects between tension and the use of coping strategies.

For example, multiple regression analyses in the METPOL data (Table 81), using the frequency of exposure variable IES items as a dependent variable produced fairly significant relationships between primary appraisal, secondary appraisal, negative affectivity and the world assumption variable of self-control and control.

For the MAIN U.K. (Table 82) the IES variable produced fairly significant associations with primary and secondary appraisal; negative affectivity; and the coping strategy of avoiding the situation.

These results might tend to suggest that primary and secondary appraisal could be related to incident-specific measures of trauma rather than dispositional measures.

Dewe (1991b) himself points out that there is an explicit relationship between appraisal and coping and that researchers must avoid generalities surrounding measures that simply ask how respondents usually cope with the general stress of work. Questions, instead, should focus on the psychological characteristics of appraisal and coping, i.e. 'how the different facets to the coping process unfold, their sequencing, and relationships over time' (Dewe 1991b, pp 347; Folkman and Lazarus 1980).

What is important from the results sections is that primary and secondary appraisal, for the police respondents, seems to be a major influence in coping either adaptively or maladaptively. For example, police officers encountering multiple exposure to work stress or trauma, might be hypothesised as appraising more effectively and coping more efficiently than, say, normal members of the public (Turnbull 1994).



And if Gersons (1990, pp 8) is correct, and trauma events are, 'cloaked as it were, in a certain working routine enabling staff to hold on to their sense of still having a physical and mental grip on what is happening around them' - then the effects of multiple exposure to trauma should have less of an impact. The evidence however, suggests otherwise.

For some police officers any exposure to trauma (either once, twice, or three or more times) has as much an affect on intrusion, avoidance, general mental health and negative affectivity as no exposure to trauma at all.

### 30.1.2. Appraisal Characteristics.

In the case of the police, primary appraisal efforts at assessing trauma remain consistent with the suggestion that a strong trauma signature enables the officers to appraise trauma events as and when they occur.

Dewe (1991b) has argued that primary appraisal impacts upon secondary appraisal and this in turn, influences coping. The above findings provide some evidence to support this idea.

However, there is evidence from the multiple regression analyses (Tables 79 and 80) to suggest that primary and secondary appraisal do not enter into equations when predicting general mental health (GHQ) alone.

Rather, both primary and secondary appraisal were significantly associated with exposure to trauma (i.e. the IES dependent variable) (Tables 81 and 82), as a possible indicator of the influence that the initial trauma event has on subsequent coping (Peters-Bean 1996).

Where MRA's were calculated predicting negative affectivity (Tables 83 and 84), only primary appraisal produced significant results. This seems to imply that primary appraisal is a core component of low self esteem associated with trauma acquisition. High levels of organisational distress and having to contend with trauma as well, might influence the assessment of trauma, but only in respect to initially evaluating the event, but not in marshalling resources to cope (secondary appraisal).

Dewe (1991b) argues that his research method asks respondents to focus on an event and use it as a basis for, 'exploring appraisal and coping in a work setting'. He also points out that future construct refinement and methodological development must contribute to what can only become a more conceptually integrated body of knowledge.

It has been argued (paragraph 14.2.) that by combining measures of impact of events, primary and secondary appraisal processes, coping indices and scales reflecting internal world assumptions, a picture emerges which is rich in, 'context-specific micro-measures (Dewe 1991b, pp 347)'.

For instance, the primary appraisal results above point to fairly low evaluation of trauma events. This, it is argued, highlights a process where trauma signatures possibly mediate the relationship between the initial impact of the event and gathering the resources to cope with that event.

Table 33 shows that the highest frequency of endorsement (for the SECEX variable - i.e. reflecting possible interference by the police culture in effective secondary appraisal and positive coping) reflects, 'One that I must accept or that I just got used to'. This could be argued as 'emotion-focused' attempts at coping - pointing to the idea that the police organisational culture might have influence on subsequent coping strategies.

Janoff-Bulman (1989) also, argues that victims resolve cognitive crises by developing more complex schemas about themselves and their world. But the reverse may also be true - where primary appraisal initiates a weakened trauma signature, this may act as a 'pre-primary appraisal' focus for coping - and the respondent may be predisposed to cope maladaptively.

'Pre-primary appraisal' factors may involve learning that organisational distress and trauma are part of ones' lot and beyond individual control. Officers may learn to resign themselves to the fact that coping has already been impoverished by the culture of the organisation itself. In support of this, Fain and McCormick (1988) note that police officers use coping mechanisms which increase their stress rather than alleviate it, such as emotion-focused coping strategies involving the use of alcohol, drugs, deviance and cynicism. Similarly, Folkman, Lazarus, Gruen and DeLongis (1986) report that emotion-focused coping may be moderately stable across stressful encounters and so affect adaptional outcomes.

Problem-focused coping, however, may be partly influenced by the situational context of the actual stressor. Hart, Wearing and Headey (1995) highlight, for example, that problem-focused coping resulted in positive work experiences for police officers and that emotion-focused coping contributed to more negative work experiences.

The MAIN U.K. correlations (Table 78a) indicate that primary appraisal may be significantly associated with secondary appraisal; general mental health; negative affectivity; accommodating desires to meet expectations; devaluing the situation; avoiding the situation; seeking social support and the world assumptions of 'self worth' and 'luck'.

Secondary appraisal, also, may be significantly associated with general mental health; negative affectivity; accommodating desires to meet expectations; symptom reduction; self worth; changing the situation, social support seeking and internal world notions of benevolence towards people.

Appraisal and coping thus seems to be dependent on a host of factors - which were touched upon by Dewe (1991b) - but not adequately explored in his study. The results above note, however, that the concept of negative affectivity (NAFF, Parkes 1990) seems to have an influence in subsequent coping and is discussed next.

### 31. SECTION THREE: Coping Characteristics.

If coping is dependent on core beliefs associated with trauma signatures, then the process of coping itself may become more purposeful and dynamic (see for example, Appley and Trumbull 1986 and Folkman et al. 1986).

This suggests that direct or problem-focused coping (Lazarus and Folkman 1984), may involve behaviours which do not lead to negative affectivity - associated with poor primary appraisal and attempts at symptom reduction (Table 83) or, negative affectivity, in association with: primary appraisal; avoiding the situation; seeking social support; and beliefs associated with a sense of injustice; bad things happening; and low self esteem (Table 84).

Rather, there is some evidence to support a gradual erosion of efforts in evaluating trauma (primary appraisal) and marshalling options for coping (secondary appraisal) - which might represent the extreme end of the continuum, perhaps. An individual, say, encounters a 'unique' and unrehearsed event which not only detracts from direct coping strategies, but may actually underwrite previous successful coping strategies.

Obviously, this would be dependent on situational factors such as the context of the trauma) and/or lessons learned from previous trauma, which can act in suppressing coping efforts (Parkes 1984; Carver and Scheier 1994; Scheier and Carver 1987).

If, and when a trauma signature is well-formed and strong, and the outcome is adaptive, homeostatic balance may be favoured in terms of a physiological equilibrium and an improved psychic response - i.e. more positive assets associated with a traumatic encounter:

'As the patient reappraises and revises, new decisions are made and adaptive actions are engaged. Desired behavioral patterns can be practised until they gradually become automatic.'

Horowitz (1993) pp 58.

So, for police officers who might talk about 'going on automatic pilot' or performing in 'automatic mode' - it could be argued that prolonged and repetitive experience of work-stress or trauma initiates a mechanism of defence (Bloch 1991; Shilony and Grossman 1993 and Janik 1990; 1992).

But caution must be exercised here. A dissociative state might reduce the harmful effects associated with repression or denial by initiating, '...the development of specialised adaptive competencies that otherwise would be inhibited by traumatic experience (Bloch 1991)'. Or, it might truly represent the, 'straw that breaks the camel's back'.

Several other research questions remain unanswered. For example, could age and experience alone contribute to dissociative states ('going on automatic pilot') as a possible mechanism of defense (Bloch 1991; Spiegel and Cardena 1990). And is this process of becoming a veteran police officer reliant on putting trauma into perspective; making it appropriate to the moment (Kaslof 1989; Larsson, Kempe and Starrin 1988)? There was little or no evidence to suggest that age, (or gender), or length of service was a determining factor in reducing, say, frequency or intensity of intrusion or avoidance in any of the three studies.

Could it be that coping techniques are dependent on other factors, such as the 'specific-task' or situational coping element (Macrae 1984) of trauma (i.e. the detective who investigates homicide, or the pathologist who conducts the post mortem). Gersons (1990) rightly points out that some people are not normally affected by trauma which are perceived as a natural extension of their work (see also paragraph 5.2.3. for discussion).

The proximity, magnitude, and duration of exposure to any trauma event (McGammon et al 1988; Flach 1990) might also influence situational coping - i.e. the rail disaster which represents a single intense event in which the, 'intrusive events are only mildly experienced' (Horowitz, Wilner and Alvarez 1979).

However, these matters could not be addressed within the scope of this research project - though we have to acknowledge that multiple trauma experience may be substantially and qualitatively different from single event trauma resolution. In other words, there may be differences between exposure, 'once', 'twice' or 'three or more times' - as against no exposure to trauma at all. But the results did not conclusively differentiate between those who reported higher incidences of trauma.

Coping also, may be dependent on combinations of primary appraisal, secondary appraisal and individual differences reflecting self-worth, low negative affectivity and productive coping strategies. In this respect, Edwards and Baglioni's (1993) cybernetic coping scale was useful to determine which coping strategies were used by the various individuals. But we concluded that the 24-item did not address some of the more interesting questions, particularly in relation to issues surrounding 'active' versus 'passive' coping.

That apart, the general transactional framework of the stress appraisal and coping process (Cox and Mackay 1981; Cox 1993) has been widely adopted and accepted by stress researchers over the past two decades. In the context of traumatic stress research and particularly focusing on the effects of serial traumatisation (Keilson 1992), it is important to extend the model over prolonged time periods (Epstein and Katz 1992; Katz 1998; Zuroff et al. 1990).

Thus, how a person perceives demands, their ability to meet those demands, their expectations of coping efficacy, and their eventual psychological outcome - in response to a major event at one time - then might have a bearing on how they appraise and cope with a major stressor on the next and subsequent occasions (Peters-Bean 1996).

The implications that internal world models have on appraisal and coping will be discussed next.

## **32. SECTION FOUR: The Role Of World Assumptions.**

Janoff-Bulman (1989, pp 116) states that generally the most common response to negative life events is an intense feeling of vulnerability: 'Victims report that they thought it would never happen to them; they feel vulnerable, unsafe and unprotected'.

Previously (see Chapter 7), much discussion focused on the works of Janoff-Bulman and how personal intrapsychic beliefs about the world and people contributed to understanding trauma. It was argued that schemas operate as basic knowledge frameworks which guide the interpretation of trauma events.

Schema construct theory (Janoff-Bulman 1989; Horowitz 1993) also postulated that basic beliefs about the world are highly resistant to change, even when discrepant or anomalous information provides evidence to the contrary.

The World Assumptions Scale, are intended to reveal consistent features of underlying beliefs about, 'benevolence towards the world and people' and the author (Janoff-Bulman 1989) asserts that: where subjects negatively assess core beliefs, in terms of malevolence towards people and the world - a maladaptive process will result.

Similarly, where negative biases occur in other beliefs about oneself or the world, there is likely to be a more maladaptive outlook. This reflects other research by Mathews (1993) - where it was argued that depressed patients are more likely to use negative and degrading adjectives in describing themselves, as against describing significant others' in more positive and supportive terms.

Janoff-Bulman's (1989) own study indicated that for both victims and non-victims traumatic experiences, there was a long term impact on their basic intrapsychic assumptions. Years after a trauma event, self and world schemas differed for victims as opposed to non-victims. It was further suggested victims may resolve cognitive crises by developing more complex schemas and finer cognitive distinctions between themselves and their world.

However, there were difficulties in using the 32-item World Assumptions Scale: Firstly, we could not differentiate sufficiently between victim and non-victim samples. This was a methodological issue, in that no prior knowledge of traumatic experience could be assumed and discrimination between victims and non-victims could not be achieved.

Secondly, the items themselves are not sensitive enough to distinguish between the, '...finer cognitive distinctions, thereby conceptualising their world in terms of more dimensions, with little overlap among them' (Janoff-Bulman 1989, pp 131). Hence, it was difficult to report meaningful data which defines differences between say, 'controllability' and 'self-controllability' or 'randomness' and 'luck'.

Further, 'benevolence towards the world' and, 'benevolence towards people' did not emerged as a single factor - as previously predicted by Janoff-Bulman 1989, pp 125 - in our current research. But there were other moderately significant associations of internal world beliefs with indices of multiple exposure to trauma (IES); general mental health and negative affectivity.

Where assumptions about the world are directly challenged, it is therefore, not unreasonable to suggest that appraisal and coping behaviours will also alter over the course of time.

To some extent the proposed model of 'traumatic signatures' might reflect this process. For a given traumatic event, the situation is appraised in relation to its perceived threat to the individual (i.e. primary appraisal). The primary appraisal is then related to the outcome of previous stressful encounters and the longer term development of how important certain internal demands (and assumptions) are.

Dispositional primary appraisals have been linked with important perceptions of how an individual feels they, 'must be' by researchers both in the clinical (Beck 1967; Beck et al. 1991; Katz 1998) and organisational domain (Guppy and Weatherstone 1997).

Therefore the role and importance of internal world assumptions cannot be overlooked (Janoff-Bulman and Timko 1997; Joseph, Williams and Yule 1992; Williams 1993) - particularly since the current research links world assumptions to predictors of negative affectivity (Table 84) - but future research should explore these issues and may provide stronger evidence, perhaps, of the association of internal world models with low self esteem, cynicism, or other negative affects.

### **33. SECTION FIVE: Negative Affectivity.**

Appraisal has been argued to be dependent on some predisposition factors (Horowitz 1992, see paragraph 7.1.4): For example, in this study it is argued that a 'pre-primary' appraisal process (see paragraph 17.1.1. for discussion), might enable trauma signatures to moderate or mediate the affects of primary and secondary appraisal proper - operating at the level of trauma acquisition.

This pre-primary appraisal process may be further influenced by feelings towards negative affectivity - and generally, the more miserable a person is, the more vulnerable they are likely to be in coping with work stress.

Fain and McCormick (1988) argue that police officers use coping mechanisms which may increase their stress rather than decrease it - i.e. emotion-focused coping involving the use of alcohol and/or drug misuse; dysfunctional behaviour; or negative affectivity and cynicism. Also, Folkman et al. (1986) highlight that emotion-focused coping may be fairly stable across stress and trauma experiences, and which may affect adaptional outcomes. Hart, Wearing and Headey (1995), on the other hand, contend that problem-focused coping techniques result in a positive work outlook for police officers, but emotion-focused coping contributes to a more negative work outlook.

Parkes (1990) however, argues that the weak findings for the efficacy of individual coping processes (in work settings) is constrained by the organisations themselves - i.e. in limiting possibilities for constructive action by individuals and by necessitating the use of collective forms of coping. Recall that the numbered choice items for secondary appraisal (SECEX) attempts to provide evidence for 'interference' in coping by levels of police bureaucracy.

Here, it could be argued that the secondary appraisal items (Dewe 1991b) should be viewed in the context of organisational limiting factors - which particularly inhibit effective coping by the police, particularly, as evidenced by the relatively high frequency of endorsement of the secondary appraisal variable, 'one that I must accept or that I just got used to (SECEX, Table 33)'.

This should be viewed as possibly presenting difficulties in 'marshalling ones resources to cope' with trauma and may influence future coping options such as the cybernetic elements of 'change, accommodation, devaluation, symptom reduction and social support seeking' (Edwards and Baglioni 1993).

In Table 83, using negative affectivity as a criterion variable, fairly significant associations were noted for primary appraisal and symptom reduction for the METPOL respondents. This could reflect the idea that negative affectivity - hence more vulnerability towards work stress - may have an association with perceptions of getting to grips with stress and trauma and attempts at reducing the effects of it.

Similarly, Table 84 (for the MAIN U.K. respondents) demonstrated reasonably strong associations with primary appraisal; coping, by avoiding situations connected with trauma; seeking social support; and internal world beliefs associated with the 'world as a just place'; the idea that things happen to people more than by chance; and notions of self worth or low self-esteem.

Parkes (1990) links negative affectivity to low self esteem, including: negative emotionality; a tendency to focus on the negative aspects of other people, the self, and the world in general; and a tendency to experience high levels of distress. Negative affectivity, she states, 'tends to inflate relationships between work-stress measures and psychological symptoms (Parkes 1990, pp 401)'.

Coping strategies may also be significant determinants of outcome, in that they may moderate or mediate between work stress and psychosomatic complaints (Frese 1986). For example, as a mediator variable, coping links stressors to outcomes; whilst, as a moderator variable, coping improves or disrupts the relationship between the stressor and reaction.

This moderating process involves primary appraisal mechanisms - amongst others - according to the MRA's predicting negative affectivity (Tables 83 and 84) and provides some evidence for the existence of a 'pre-primary appraisal' process involved in formulating 'trauma signatures'. And since we have indirectly mentioned these a number of times, it is important that some thought is given to providing evidence for a 'trauma signature'.

#### **34. SECTION SIX: The Empirical Argument For The Existence Of Traumatic Signatures.**

The mechanism of moulding appraisal processes into useful and directive coping strategies, may also be similar to cognitive schema affect states - which serve to integrate external experience into existing internal frameworks.

Schematisations of this kind will either assist in positively identifying coping strategies, or hinder coping - by negatively identifying coping strategies which might lead to less than positive outcomes (Horowitz 1993).

Janoff-Bulman and Frieze (1983) assert also, that victims have 'cognitive baggage' - i.e. assumptions and expectations they have about themselves and their world, and which have been severely challenged on encountering a traumatic event.

Personal (intrapsychic) theories allow people to generate internal goals and plan activities, thus imposing order on their behaviour. And where there appears to be discrete beliefs associated with, personal invulnerability; the perception of the world as being meaningful and comprehensible; and the view of ourselves in positive light (Janoff-Bulman and Frieze 1983) - it should follow that internal world models are stable and purposeful.

However, where positive coping may be hampered by negative affectivity (Parkes 1990) associated with, emotion-focused coping, internal locus of control and low self regard, this may lead to maladaptive coping.

Of necessity, trauma signatures could be hypothesised as linking the person-environment 'transactions' between stressor and outcome (Cox 1993), which may assist in moderating the relationship between the stressor and the reaction (Frese 1986).

But how are the trauma signatures operationalised?

Recall that, of the Multiple Regression Analyses conducted, negative affectivity was usually entered into the equation as one of predictors for general mental health (GHQ) and exposure to trauma (IES) - see Tables 79 to 82. Where MRA's were calculated, with negative affectivity as a dependent variable itself (Table 83), the METPOL candidates revealed statistically significant relationships with the 'reduction of symptoms' and 'primary appraisal'.

The MAIN U.K. findings (Table 84) revealed relationships with: primary appraisal; 'avoiding the situation'; 'seeking social support'; and internal world beliefs associated with, 'the world is unjust'; events occur at random'; and low self 'worth'.

Janoff-Bulman (1989) argues that exposure to trauma has a long-term impact on mental health and functioning, because of the disparity between previous held models of the world and new existing data which challenges intrapsychic assumptions (Flannery and Harvey 1991).

These issues are similar to the ideas of Edwards and Baglioni (1993) which unpacks the cybernetic theory of stress, coping and well-being - as a discrepancy between the individual's perceived state and desired state - providing the discrepancy has some importance for the individual. Coping, here, is an attempt to reduce or minimise the negative effects of stress on well-being.

Edwards (1988) also maintains that personal characteristics influence the impact of any coping strategy. These include skills, abilities and personality traits which are relevant for the success of a particular coping style.

With reference to health outcomes though, all three studies (Tables 11, 35, and 64) highlight that GHQ threshold scores for respondents who report 3 or more items represent only about 20% to 30% of all groups - comparable with other organisational norms (Goldberg 1972; Goodchild and Duncan-Jones 1985). Whilst some police officers exhibit higher GHQ scores than their colleagues, that group is very small and widely dispersed amongst the different police occupations and ranks or grades.

This may be provisional evidence that a strong trauma signature may tend to influence both negative affectivity and general mental health. In other words, if officers seem to resolve intrapsychic activity quickly, even under difficult circumstances, then it would imply that some other factor is in operation to influence the effects of trauma.

Conversely where intrapsychic activity is not resolved through time, then long term effects may be apparent - even when the distress is not as a direct result of trauma alone.



Trauma signatures may exist, therefore, as something other than an artefact of the data - and reveal distinct internal beliefs, thought and coping processes, which are useful in making sense out of hostile stimuli. They might involve making assumptions about the world and using that internal knowledge to moderate the effects of trauma. Trauma signatures say something about the relevance of a particular coping style, rather than how a person copes in a given trauma event.

Furthermore, one's appraisal of, 'what if anything can be done' (secondary appraisal) may be similarly influenced by previous experiences and the success or failure of previous stressful encounters. Thus dispositional components of secondary appraisal may be seen to be related to perceptions of mastery or control and in turn may influence the particular secondary appraisal of any traumatic or stressful encounter.

Coping styles, are reflected in the cybernetic indices (Edwards and Baglioni 1993) inherent in, 'avoiding the situation', 'devaluing the situation', 'symptom reduction', or, 'seeking social support' (Tables 80, 81, 82, 83 and 84) - as attempts are made to negotiate trauma experience by relating it to what is known about previous encounters with trauma and the relative 'survivability' of the current, or future, trauma encounters. This may be suggested as the function and focus of trauma signatures themselves - to put things into context and enable officers to begin the process of resolution and healing.

The description of dispositional components of coping has been made by a large number of researchers (e.g. Carver and Scheier 1994; Rick and Guppy 1994) and again, it is likely that how a person generally has learned to cope will influence how they choose to cope under any particular circumstance.

Finally, the psychological well-being outcome from any particular stress appraisal and coping process may be influenced by dispositional levels of psychological well-being. This reflects a wide range of research within the domain of negative affectivity (Watson and Clark 1984; Parkes 1990) and further emphasises the need to view any current transactional process as dependent on the way previous stressful encounters have been processed.

Within the present dissertation there is partial evidence that elements of the 'trauma signature model' have been supported -at least in principle, if not in the analyses for the two larger studies (METPOL and MAIN U.K.). Primary and secondary appraisals have been directly measured in accordance with the methods used by Folkman et al. (1986) and Dewe (1991b) and have been shown to be related (albeit weakly) to both outcome and other elements of the coping process.

Furthermore, the influence (both in a positive and negative sense) of certain kinds of dispositional coping on successful and resolvable outcome, have been moderately demonstrated in line with previous findings (i.e. Folkman et al. 1986; Dewe 1991b).

The largest contribution to the prediction of state psychological well-being by negative affectivity observed in the METPOL and MAIN U.K. data study is certainly in keeping with most research in this area. However, the role of negative affectivity as representing a 'residual' outcome from previous stress appraisal processes experienced by the individual, is less clearly demonstrated in the literature.

In this dissertation, also, the absence of longitudinal data prevents a detailed exploration of this role and this, therefore, is seen as a likely avenue for future research projects.

It is emphasised however, that it is not just negative affectivity that needs to be included in the prediction of outcome. As was inferred from the analyses here, negative affectivity itself is predicted by dispositional components of appraisal and coping and the inclusion of these factors in future research is advised.

Other sub-scales reflecting perceptions of, 'control', 'randomness' or, 'luck' - more likely represent dispositional components of secondary appraisal and influence this part of the model. The remaining elements of the Janoff-Bulman's (1989) model of assumptive worlds, concerning 'self-worth' perceptions, would seem to be conceptually associated with measures of self esteem and negative affectivity, and thus may be seen as dispositional elements of well-being.

Thus, it may be seen that the various working parts of what has been suggested as a 'traumatic signatures' very closely reflect dispositional elements of the transactional stress, appraisal and coping model. Where there are differences, they may be assumed to reflect the nature of the seriousness of the trauma events. The general transactional model (Cox 1993) is clearly designed to deal with everyday encounters from hassles to catastrophes.

For significant stressors, or particularly for repeatedly experienced significant stressors, a more typical (or dispositional) way of appraising and coping may be adopted by the individual, which then typifies their traumatic experience - hence that experience may be 'built into' a personal model of the world, which attempts to predict how and when police officers will survive trauma. This is, in essence, the reasoning behind the model of 'trauma signatures' - as components of previously learned experience contributing to overall psychological well-being.

### **35. SUMMARY.**

It was partially demonstrated that the psychometric instruments used in the METPOL and MAIN U.K. surveys were useful in revealing the underlying psychological outcomes of reported trauma and work distress.

In relation to the 'trauma signature theory' which was proposed throughout this dissertation - it was particularly difficult to demonstrate the possible existence of structures of internal world beliefs which may have an influence on initially encountering trauma, appraisal, coping and productive outcomes. But there was some evidence that internal world beliefs had a moderate association with GHQ (Table 80) and negative affectivity (Table 84) in the larger MAIN U.K. sample.

Evidence of associations of internal world models with the other psychometric instruments were also gleaned from the larger correlation matrices in Tables 77a to 78b - to some extent. Though, it is acknowledged that clearer research is required in this area.

Work and home distress was examined, as well as trauma events. These issues were difficult to tease apart, since the distress itself could accumulate to such an extent that it became traumatic; with measures of frequency and intensity or intrusion and avoidance.

It was also concluded that the magnitude of the trauma was unimportant, relatively. That, to consider an incident as more or less traumatic than another, was to impart judgement and bias on what an individual was actually experiencing. Instead, it was argued that the management of the trauma was of prime importance. Again, there were clear differences between those officers who were not exposed to trauma at all, as against officers who reported one, two, or three or more trauma events. What was less clear is accounting for difference within the trauma exposed groups - i.e. has the officer who was exposed to three or more trauma groups, a better or worse 'chance' at resolving their trauma experience?

We partially explored the influence of internal world models in resolving trauma or exacerbating the symptoms. Trauma signature theory was examined in detail and some evidence was provided that an intrapsychic 'something' exerted an influence on coping. It was argued, fairly succinctly, that adapting to trauma is not perhaps a linear and mechanistic process - in the classic sense: in which people work through processes involved in experiencing the trauma event; utilising primary and secondary appraisal mechanisms; problem focused or emotion focused coping; and reaping the psychological outcomes in either adaptive or maladaptive ways.

Instead, trauma resolution is dependent on the subtle interplay between these processes: always as a product of the independent and internal psychic activity of the individual.

Sequential trauma is not an extension of post traumatic stress disorder or other extreme stressors. It may be a disorder of its own prediction: a syndrome of prolonged and repetitive exposure to trauma events.

### **36. RECOMMENDATIONS FOR FURTHER RESEARCH.**

Briefly, there are a number of outstanding issues which require further research. Time and other constraints meant that some of the Research Objectives (paragraphs 25 to 25.1.4.) were more thoroughly demonstrated than others.

This dissertation asserts that trauma signatures do exist, but conclusively predicting their operation and detecting them at work in a sample of traumatised individuals is difficult. It is not impossible.

Here are some further research questions to consider:

1. What impact does the long-term exposure to trauma events have on individuals?

Longitudinal or time-series surveys should attempt to detect trauma in, say, novice police personnel. And as they acquire more experience, attempt to predict the impact of the trauma signature at intervals in their career. This will provide information about 'at-risk' groups.

A similar study should be attempted in other Emergency Service personnel, to identify similarities and differences in sequential trauma theory. It is postulated that the trauma signature models should remain the same, but the coping processes may differ. The internal world models may differ also, according to work practices within other organisational groups.

2. The Cybernetic Coping Scale (Edwards and Baglioni 1993) was probably differentiated between 'problem-focused' and 'emotion focused' coping.

Research should indicate whether these coping strategies are used passively or actively in resolving trauma and indicate how people cope with trauma at different times of crisis.

Other instruments used in this survey proved to be adequate for our research, but not as sensitive as one would have hoped. For example, separating the frequency and intensity of intrusion and avoidance proved to be redundant, when compared to single dimensions of intrusion and avoidance.

3. Further work on trauma signatures is inevitably required. This would involve developing the work of Janoff-Bulman, Horowitz and others, who have been concerned with the study of schematisations of internal world events.

This will mean refining the survey instruments to accurately assess internal models of the world and people.

A clinical approach might provide further insight into the influence of intrapsychic beliefs on trauma. This would also answer discrepant information about avoidance being viewed negatively as 'repression and denial' - in contrast with avoidance as 'dissociation and a mechanism of defence'.

4. Finally, short, medium and long-term aims should be examined with regard to psychotherapeutic interventions in trauma.

This is particularly important for organisations such as the police, who are faced with problems involving daily incidents and how best to restore officers to normal productivity.

For example, there are Trauma Support Teams in the Metropolitan Police Service. These teams respond to incidents and use 'psychological triage' techniques to normalise the abnormal reaction to trauma. But this organisational response is not consistent within other Forces and standards of selecting personnel for the teams, their training and support - will also differ.

Research should ask whether a 'quick-fix' to lessen the impact of trauma has as much value to troubled employees and their supervisors, as a well-defined, publicised and financed occupational health system.

In other words should we merely react to events, or plan ahead and predict likely sources of trauma?

Should intervention strategies apply to the police service as a whole, or to individual groups of officers engaged in particular risk activity?

## BIBLIOGRAPHY.

- ALDWIN C.; FOLKMAN S.; SCHAEFER C.; COYNE J.C.;**  
**LAZARUS R.S. (1980)**  
'Ways Of Coping: A Process Measure.'  
*Paper presented at the meetings of the American Psychological Association: Montreal [September].*
- ALDWIN C.M.; REVENSON T.A. (1987)**  
'Does Coping Help? A Re-examination Of The Relation Between Coping And Mental Health.'  
*JOURNAL OF PERSONALITY AND SOCIAL PSYCHOLOGY*  
*Vol 53(2) pp 337-348.*
- ALEXANDER D.A. (1990)**  
'Psychological Intervention For Victims And Helpers After Disasters.'  
*BRITISH JOURNAL OF GENERAL PRACTICE Vol 40 pp 345-348.*
- ALEXANDER D.A.; INNES G.; IRVING B.L.; SINCLAIR S.D.;**  
**WALKER L.D. (1991)**  
'Health, Stress And Policing: A Study In Grampian Police.'  
*The Police Foundation: London.*
- ALEXANDER D.A.; WELLS A. (1991)**  
'Reactions Of Police Officers To Body-Handling After A Major Disaster: A Before And After Comparison.'  
*BRITISH JOURNAL OF PSYCHIATRY Vol 159 pp 547-555.*
- ALEXANDER D.A. (1993)**  
'The Piper Alpha Oil Rig Disaster.'  
*In: WILSON J.P.; RAPHAEL B. (1993) [Eds.]*
- ALLINSON A.J. (1991)**  
'P.T.S.D.: A British Perspective.'  
*MEDICINE SCIENCE AND THE LAW Vol 31(3) pp 264-270.*
- ALLRED K.D.; SMITH T.W. (1989)**  
'The Hardy Personality: Cognitive And Physiological Responses To Evaluate Threat.'  
*JOURNAL OF PERSONALITY AND SOCIAL PSYCHOLOGY*  
*Vol 56(2) pp 257-266.*
- ANSON R.H.; BLOOM M.E. (1988)**  
'Police Stress In An Occupational Context.'  
*JOURNAL OF POLICE SCIENCE AND ADMINISTRATION*  
*Vol 16(4) pp 229-235.*
- APPLEY M.H.; TRUMBULL R. (1986) [Eds.]**  
'Dynamics Of Stress: Physiological, Psychological And Social Perspectives.'  
*Plenum Press: New York and London.*
- ARGYRIS C. (1982)**  
'Research As Action: Usable Knowledge For Understanding And Changing The Status Quo.'  
*In: NICHOLSON N.; WALL T.D. (1982) [Eds.]*  
'*THE THEORY AND PRACTICE OF ORGANISATIONAL PSYCHOLOGY.*'  
*Academic Press: London.*

- AROgyASWAMY B.; BYLES C.M. (1987)**  
 `Organisational Culture: Internal And External Fits.'  
*JOURNAL OF MANAGEMENT* Vol 13(4) pp 647-659.
- BABBIE E.R. (1989)**  
 `THE PRACTICE OF SOCIAL RESEARCH.' FIFTH EDITION  
 Wadsworth Publishing: California.
- BAND S.R.; MANUELE C.A. (1987)**  
 `Stress And Police Officer Performance: An Examination Of Effective Coping Behaviour.'  
*POLICE STUDIES* Vol 10(3) pp 122-131.
- BARTONE P.T.; URSANO R.J.; WRIGHT K.M.; INGRAHAM L.H. (1989)**  
 `The Impact Of A Military Air Disaster On The Health Of Assistance Workers: A Prospective Study.'  
*JOURNAL OF NERVOUS AND MENTAL DISEASE* Vol 177(6) pp 317-328.
- BATSON C.D.; O'QUIN K.; PYCH V. (1982)**  
 `An Attribution Theory Analysis Of Trained Helpers' Inferences About Clients Needs.'  
 In: *WILLS T.A. (1982) [Ed.]*  
 `BASIC PROCESSES IN HELPING RELATIONSHIPS.'  
 Academic Press: London.
- BAYER G.A.; BARKIN A.C. (1990)**  
 `Employee Assistance Programme Utilisation: Comparison Of Referral Sources And Problems.'  
*EMPLOYEE ASSISTANCE QUARTERLY* Vol 5(4) pp 63-70.
- BEECH H.R.; BURNS L.E.; SHEFFIELD B.F. (1982)**  
 `A BEHAVIORAL APPROACH TO THE MANAGEMENT OF STRESS: A PRACTICAL GUIDE TO TECHNIQUES.'  
 John Wiley and Sons: Chichester.
- BECK A.T. (1967)**  
 `DEPRESSION: CLINICAL, EXPERIMENTAL AND THEORETICAL ASPECTS.'  
 Harper And Row: New York.
- BECK A.T.; BROWN G.; STEER R.A.; WEISSMAN A.N. (1991)**  
 `Factor Analysis Of The Dysfunctional Attitude Scale In A Clinical Population.'  
*PSYCHOLOGICAL ASSESSMENT: A JOURNAL OF CONSULTING AND CLINICAL PSYCHOLOGY*  
 Vol 3(3) pp 478-483.
- BEIDEL D.C. (1991)**  
 `Environmental Events And Psychopathology: Restoring The Balance.'  
*BEHAVIOR MODIFICATION* Vol 15(4) pp 451-455.
- BEISER M. (1974)**  
 `Components And Correlates Of Mental Well-Being.'  
*JOURNAL OF HEALTH AND SOCIAL BEHAVIOUR* Vol 15(4) pp 320-327.
- BERRIDGE J.; COOPER C.L. (1993)**  
 `Stress And Coping In US Organisations: The Role Of The Employee Assistance Programme.'  
*WORK AND STRESS* Vol 7(1) pp 89-102.

- BERRY P.A. (1989)**  
 `Application Of Social Work Skills To Human Resource Management.'  
*EMPLOYEE ASSISTANCE QUARTERLY* Vol 5(1) pp 67-76.
- BLACKLER F.; SHIMMINS S. (1984)**  
 `APPLYING PSYCHOLOGY IN ORGANISATIONS.'  
 Methuen And Co: London.
- BLAKE D.D.; ALBANO A.M.; KEANE T.M. (1992)**  
 `Twenty Years Of Trauma: Psychological Abstracts 1970 through 1989.'  
*JOURNAL OF TRAUMATIC STRESS* Vol 5(3) pp 477-484.
- BLOCH J.P. (1991)**  
 `Assessment And Treatment Of Multiple Personality And Dissociative Disorders.'  
 Professional Resource Press: Sarasota, Florida.
- BONIFACIO P. (1991)**  
 `The Psychological Effects Of Police Work.'  
 Plenum Press: London.
- BOWERS K.S. (1987)**  
 `Toward A Multidimensional View Of Personality And Health.'  
*JOURNAL OF PERSONALITY* Vol 55(2) pp 343-349.
- BRAVO M.; RUBIO-STIPEC M.; CANINO G.J.; WOODBURY M.A.;  
 RIBERA J.C. (1990)**  
 `The Psychological Sequelae Of Disaster Stress Prospectively And Retrospectively Evaluated.'  
*AMERICAN JOURNAL OF COMMUNITY PSYCHOLOGY*  
 Vol 18(5) pp 661-680.
- BRAYFIELD A.H.; ROTHE H.F. (1951)**  
 `An Index Of Job Satisfaction.'  
*JOURNAL OF APPLIED PSYCHOLOGY* Vol 35(5) pp 307-311.
- BRETT E.A.; OSTROFF R. (1985)**  
 `Imagery And Posttraumatic Stress Disorder: An Overview.'  
*THE AMERICAN JOURNAL OF PSYCHIATRY* Vol 142(4) pp 417-424.
- BREWER N.; WILSON C.; BECK K. (1994)**  
 `Supervisory Behaviour And Team Performance Amongst Police Patrol Sergeants.'  
*JOURNAL OF OCCUPATIONAL AND ORGANISATIONAL PSYCHOLOGY*  
 Vol 67 pp 69-78.
- BROMET E.J. (1990)**  
 `Methodological Issues In The Assessment Of Traumatic Incidents.'  
*JOURNAL OF APPLIED SOCIAL PSYCHOLOGY* Vol 20(20) pp 1719-1724.
- BROUGH P.A. (1998)**  
 `A Longitudinal Investigation Of Police Officers' Psychological Well-Being.'  
 PH.D. Thesis (Unpublished).  
 Cranfield University, Cranfield Bedfordshire.

**BROWN B.B. (1980)**

'Perspectives On Social Stress.'

In: SELYE H. [Ed.]

'SELYE'S GUIDE TO STRESS RESEARCH.' Volume I

Van Nostrand Reinhold Co: London.

**BROWN J.M.; CAMPBELL E.A. (1990)**

'Sources Of Occupational Stress In The Police.'

WORK AND STRESS Vol 4(4) pp 305-318.

**BROWN J.M.; CAMPBELL E.A. (1994)**

'STRESS AND POLICING.'

John Wiley And Sons: Chichester.

**BROWN W.J. (1986)**

'Organisation Assessment: Determining The State Of A Police Organisation.'

JOURNAL OF POLICE SCIENCE AND ADMINISTRATION

Vol 14(4) pp 267-284.

**BUCHANAN D.R.; HANKINS J.M. (1986)**

'Ideology Meets Pragmatism: Applied Research In Law Enforcement.'

In: REESE J.T.; GOLDSTEIN H.A. (1986) [Eds.]

'PSYCHOLOGICAL SERVICES FOR LAW ENFORCEMENT'

U.S. DEPARTMENT OF JUSTICE

Federal Bureau Of Investigation; Washington D.C.

**BULL R.; HORNCastle P. (1988)**

'Evaluation Of The Effectiveness Police Training Involving Psychology. '

In: REESE J.T.; HORN J.M. (1988) [Eds.]

'POLICE PSYCHOLOGY: OPERATIONAL ASSISTANCE.'

U.S. DEPT. OF JUSTICE.

Federal Bureau of Investigation: Washington D.C.

**BURKE M.J.; BRIEF A.P.; GEORGE J.M. (1993)**

'The Role Of Negative Affectivity In Understanding Relations Between Self-Reports Of Stressors And Strains:A Comment On The Applied Psychology Literature.'

JOURNAL OF APPLIED PSYCHOLOGY Vol 78(3) pp 402-412.

**BURKE R.J.; DESZCA E. (1986)**

'Correlates Of Psychological Burnout Phases Among Police Officers.'

HUMAN RELATIONS Vol 39(6) pp 487-502.

**BURKE R.J.; DESZCA E. (1988)**

'Career Orientations, Satisfaction And Health Among Police Officers: Some Consequences Of Person-Job Misfit.'

PSYCHOLOGICAL REPORTS Vol 62(2) pp 639-649.

**BURKE R.J. (1988a)**

'Type A Behaviour, Occupational And Life-Demands, Satisfaction And Well-Being.'

PSYCHOLOGICAL REPORTS Vol 63(2) pp 451-458.



**BURKE R.J. (1988b)**

'Sources Of Managerial And Professional Stress In Large Organisations.'  
In: COOPER C.L.; PAYNE R. (1988) [Eds.]  
'CAUSES, COPING AND CONSEQUENCES OF STRESS AT WORK.'  
John Wiley and Sons: Chichester.

**BURKE R.J. (1989)**

'Career Stages, Satisfaction And Well-Being Among Police Officers.'  
PSYCHOLOGICAL REPORTS Vol 65(1) pp 3-12.

**BURROWS C.; MURPHY G. (1994)**

'Post Shooting Trauma: The Firearms Trainers Role.'  
HOME OFFICE: Police Research Group

**CAMPBELL J.; SWANK P.; VINCENT K.R. (1991)**

'The Role Of Hardiness And The Resolution Of Grief.'  
OMEGA JOURNAL OF DEATH AND DYING Vol 23(1) pp 53-65.

**CAPLAN R.D.; COBB S.; FRENCH J.R.P.; VAN HARRISON R.;  
PINNEAU S.R. (1975)**

'JOB DEMANDS AND WORKER HEALTH: MAIN EFFECTS AND OCCUPATIONAL  
DIFFERENCES.'  
US Government Printing Office: Washington D.C.

**CARVER C.S.; SCHEIER M.F. (1994)**

'Situational Coping And Coping Dispositions In A Stressful Transaction.'  
JOURNAL OF PERSONALITY AND SOCIAL PSYCHOLOGY Vol 66 pp 4-195.

**CHADWICK P.D.J.; LOWE C.F. (1990)**

'Measurement And Modification Of Delusional Beliefs.'  
JOURNAL OF CONSULTING AND CLINICAL PSYCHOLOGY  
Vol 58(2) pp 225-232.

**CHADWICK P.K. (1992)**

'BORDERLINE: A PSYCHOLOGICAL STUDY OF PARANOIA AND DELUSIONAL THINKING.'  
Kegan Paul: London.

**CHANDLER J.T. (1986)**

'A Statewide Police Psychology Programme: Guidelines For Development.'  
In: REESE J.T.; GOLDSTEIN H.A. (1986) [Eds.]  
'PSYCHOLOGICAL SERVICES FOR LAW ENFORCEMENT.'  
U.S. DEPARTMENT OF JUSTICE.  
Federal Bureau of Investigation: Washington D.C.

**CHANDLER J.T. (1990)**

'MODERN POLICE PSYCHOLOGY: FOR LAW ENFORCEMENT AND HUMAN BEHAVIOR  
PROFESSIONALS'.  
Charles C. Thomas: Springfield, Illinois.

**CHECK J.V.; DYCK D.G. (1986)**

'Hostile Aggression And Type A Behaviour.'  
PERSONALITY AND INDIVIDUAL DIFFERENCES Vol 7(6) pp 819-827.

**CHERNISS C. (1980)**

'PROFESSIONAL BURNOUT IN HUMAN SERVICE ORGANISATIONS.'  
Praeger: New York.

**CHESNEY M.A.; ROSENMAN R.H. (1980)**

'Type A Behaviour In The Work Setting.'  
In: COOPER C.L.; PAYNE R. (1980) [Eds.]  
'CURRENT CONCERNS IN OCCUPATIONAL STRESS.'  
John Wiley and Sons: Chichester.

**CHOY T.; DE BOSSET F. (1992)**

'Post-Traumatic Stress Disorder: An Overview.'  
CANADIAN JOURNAL OF PSYCHIATRY Vol 37(8) pp 578-583.

**CLEGG C.W.; WALL T.D. (1981)**

'A Note On Some New Scales For Measuring Aspects Of Psychological Well-Being.'  
JOURNAL OF OCCUPATIONAL PSYCHOLOGY Vol 54(3) pp 221-225.

**COHEN J. (1980)**

'Structural Consequences Of Psychic Trauma: A New Look At Beyond The Pleasure Principle.'  
INTERNATIONAL JOURNAL OF PSYCHOANALYSIS Vol 61(3) pp 421-432.

**CONTRADA R.J. (1989)**

'Type A Behaviour, Personality Hardiness, And Cardiovascular Responses To Stress.'  
JOURNAL OF PERSONALITY AND SOCIAL PSYCHOLOGY  
Vol 57(5) pp 895-903.

**COOK J.D.; HEPWORTH S.J.; WALL T.D.; WARR P.B. (1981)**

'THE EXPERIENCE OF WORK: A COMPENDIUM AND REVIEW OF 249 MEASURES AND THEIR USE.'  
Academic Press: London.

**COOPER C.L.; BRAMWELL R.S. (1992)**

'A Comparative Analysis Of Occupational Stress In Managerial And Shopfloor Workers In The Brewing Industry: Mental Health, Job Satisfaction And Sickness.'  
WORK AND STRESS Vol 6(2) pp 127-138.

**COOPER C.L.; PAYNE R. (1980) [Eds.]**

'CURRENT CONCERNS IN OCCUPATIONAL STRESS'.  
John Wiley And Sons; New York.

**COOPER C.L. (1981)**

'The Cost Of Stress To Society.'  
'THE STRESS CHECK.'  
Prentice-Hall: New Jersey.

**COOPER C.L. (1995)**

'Papering Over The Cracks: Individual Strategies Or Organisational Interventions In Dealing With Stress At Work?'  
PAPER PRESENTED TO THE BRITISH PSYCHOLOGICAL SOCIETY OCCUPATIONAL PSYCHOLOGY CONFERENCE, WARWICK UNIVERSITY.

**COX T.; MACKAY C. (1981)**

'A Transactional Approach To Stress.'  
In: CORLETT E.N.; RICHARDSON J. (1981) [Eds.]  
'STRESS, WORK DESIGN AND PRODUCTIVITY.'  
John Wiley and Sons: London.

- COX T. ; COX S. ; THIRLAWAY M. (1983)**  
 `The Psychological And Physiological Response To Stress.'  
 In: GALE A. [Ed.]  
 `PHYSIOLOGICAL CORRELATES OF HUMAN BEHAVIOUR: BASIC ISSUES.' Volume I  
 Academic Press: London.
- COX T. (1985)**  
 `The Nature And Management Of Stress.'  
 ERGONOMICS Vol 28(8) pp 1155-1163.
- COX T. (1988)**  
 `Editorial: Cognitive Science, Occupational Stress And Organisational Health.'  
 WORK AND STRESS Vol 2(4) pp 193-198.
- COX T. (1993)**  
 `Stress Research And Stress Management: Putting Theory To Work.'  
 Health And Safety Executive Contract Research  
 Report No 61/1993.  
 HMSO: London.
- CRANDALL J.E. ; PUTMAN E.L. (1980)**  
 `Relations Between Measures Of Social Interest And Psychological Well-Being.'  
 JOURNAL OF INDIVIDUAL PSYCHOLOGY Vol 36(2) pp 156-168.
- CRANDALL R. ; ALLEN R.D. (1982)**  
 `The Organisational Context Of Helping Relationships.'  
 In: WILLS T.A. [Ed.]  
 `BASIC PROCESSES IN HELPING RELATIONSHIPS.'  
 Academic Press: London.
- CRONBACH L.J. (1951)**  
 `Coefficient Alpha And The Internal Structure Of Tests.'  
 PSYCHOMETRIKA Vol 16 pp 297-334.
- CULLEN R. (1989)**  
 `A Review Of Organisational Health And Welfare In The Police Service.'  
 Home Office: Police Requirements Support Unit.
- DANIELS K. ; BROUGH P. ; GUPPY A. ; PETERS-BEAN K.M. ;  
 WEATHERSTONE L. (1997)**  
 `A Note On A Modification To Warr's Measures Of Affective Well-Being At Work.'  
 JOURNAL OF OCCUPATIONAL AND ORGANISATIONAL PSYCHOLOGY  
 Vol 70 pp 129-138.
- DANIELS K. ; GUPPY A. (1992)**  
 `The Dimensionality And Well-Being Related Correlates Of Work Locus Of Control.'  
 EUROPEAN WORK AND ORGANISATIONAL PSYCHOLOGIST  
 Vol 2(4) pp 319-330.
- DAVIDSON J.R.T. ; FOA E.B. (1991)**  
 `Diagnostic Issues In Posttraumatic Stress Disorder: Considerations For The DSM-IV.'  
 JOURNAL OF ABNORMAL PSYCHOLOGY Vol 100(3) pp 346-355.

- DAVIDSON L.M. ; FLEMING I. ; BAUM A. (1986)**  
 `Post-Traumatic Stress As A Function Of Chronic Stress And Toxic Exposure.'  
 In: FIGLEY C.R. [Ed.]  
 `TRAUMA AND ITS WAKE.' Volume II  
 Brunner/Mazel: New York.
- DAVIDSON M.J. ; VENO A. (1980)**  
 `Stress And The Policeman.'  
 In: COOPER C.L. ; MARSHALL J. (1980) [Eds.]  
 `WHITE COLLAR AND PROFESSIONAL STRESS.'  
 John Wiley and Sons: Chichester.
- DAVIS J.M. ; NASR S. ; SPIRA N. ; VOGEL C. (1981)**  
 `Anxiety: Differential Diagnosis And Treatment From A Biological Perspective.'  
 JOURNAL OF CLINICAL PSYCHOLOGY Vol 42(11) pp 4-13.
- DAVIS N. (1984)**  
 `Occupational Health And The Metropolitan Police.'  
 POLICE SURGEON Nov 1984 pp 50-56.
- DEAL S.L. ; WILLIAMS J.E. (1988)**  
 `Cognitive Distortions As Mediators Between Life Stress And Depression In Adolescents.'  
 ADOLESCENCE Vol 23(90) pp 477-490.
- DE LOOS W.S. (1990)**  
 `Psychosomatic Manifestations Of Chronic Posttraumatic Stress Disorder.'  
 In: WOLF M.E. ; MOSNAIM A.D. (1990) [Eds.]
- DELPRINO R.P. ; BAHN C. (1989)**  
 `National Survey Of The Extent And Nature Of Psychological Services In Police Departments.'  
 PROFESSIONAL PSYCHOLOGY RESEARCH AND PRACTICE  
 Vol 19(4) pp 421-425.
- DEPAULO B.M. (1982)**  
 `Social-Psychological Processes In Informal Help-Seeking.'  
 In: WILLS T.A. [Ed.]  
 `BASIC PROCESSES IN HELPING RELATIONSHIPS.'  
 Academic Press: London.
- DEPAULO B.M. (1983)**  
 `Perspectives On Help-Seeking.'  
 In: DEPAULO B.M. ; NADLER A. ; FISHER J.D. (1983) [Eds.]  
 `NEW DIRECTIONS IN HELPING.' Volume II  
 Academic Press: London.
- DEWE P. (1991a)**  
 `Measuring Work Stressors: The Role Of Frequency Duration And Demand.'  
 WORK AND STRESS Vol 5(2) pp 77-91.
- DEWE P. (1991b)**  
 `Primary Appraisal, Secondary Appraisal And Coping: Their Role In Stressful Work Encounters.'  
 JOURNAL OF OCCUPATIONAL PSYCHOLOGY Vol 64 pp 331-351.

- DEWE P.; COX T.; FERGUSON E. (1993)**  
 `Individual Strategies For Coping With Stress At Work: A Review.'  
*WORK AND STRESS* Vol 7(1) pp 5-15.
- DIAGNOSTIC AND STATISTICAL MANUAL OF MENTAL DISORDERS (1987)**  
**Third Edition - Revised (DSM-III-R).**  
*American Psychiatric Association: Washington D.C.*
- DIAGNOSTIC AND STATISTICAL MANUAL OF MENTAL DISORDERS (1994)**  
**Fourth Edition (DSM-IV).**  
*American Psychiatric Association: Washington D.C.*
- DISKIN S.; GOLDSTEIN M.J.; GRENCIK J.M. (1977)**  
 `Coping Patterns Of Law Enforcement Officers In Simulated And Naturalistic Stress.'  
*AMERICAN JOURNAL OF COMMUNITY PSYCHOLOGY* Vol 5(1) pp 59-73.
- DOHRENWEND B.S.; DOHRENWEND B.P. (1980)**  
 `What Is A Stressful Life Event.'  
 In; *SELYE H. [Ed.]*  
 `SELYE'S GUIDE TO STRESS RESEARCH.' Volume I  
*Van Nostrand Reinhold Co: London.*
- DRUSS R.G.; DOUGLAS C.J. (1988)**  
 `Adaptive Responses To Illness And Disability: Healthy Denial.'  
*GENERAL HOSPITAL PSYCHIATRY* Vol 10(3) pp 163-168.
- DUCKWORTH D.H. (1990)**  
 `The Nature And Effects Of Incidents Which Induce Trauma In Police Officers.'  
*HOME OFFICE: Police Requirements Support Unit.*
- DUFFORD T. (1986)**  
 `POLICE PERSONAL BEHAVIOUR AND HUMAN RELATIONS.'  
*Thomas: Springfield Illinois.*
- DUNEGAN K.J. (1993)**  
 `Framing, Cognitive Modes And Image Theory, Towards An Understanding Of A Glass Half Full.'  
*JOURNAL OF APPLIED PSYCHOLOGY* Vol 78(3) pp 491-503.
- DUNNING C. (1990)**  
 `Mitigating The Impact Of Work Trauma: Administrative Issues Concerning Intervention.'  
 In; *REESE J.T.; HORN J.M.; DUNNING C. (1990) [Eds.]*  
 `CRITICAL INCIDENTS IN POLICING.'  
*U.S. DEPARTMENT OF JUSTICE.*  
*Federal Bureau of Investigation: Washington D.C.*
- DYCK D.G.; MOSER C.G.; JANISSE M.P. (1987)**  
 `Type A Behaviour And Situation-Specific Perceptions Of Control.'  
*PSYCHOLOGICAL REPORTS* Vol 60 pp 991-999.
- DYCK M.J. (1990)**  
 `Non-Cognitive Panics: The Missing Catastrophic Link.'  
*JOURNAL OF COGNITIVE PSYCHOTHERAPY* Vol 4(4) pp 393-395.

- DYCK M.J.; STEWART B.L. (1991)**  
 `Cognitive Vulnerability To Depression.'  
*JOURNAL OF COGNITIVE PSYCHOTHERAPY* Vol 5(2) pp 115-129.
- DYCK M.J. (1992)**  
 `Subscales Of The Dysfunctional Attitude Scale.'  
*BRITISH JOURNAL OF CLINICAL PSYCHOLOGY* Vol 31 pp 333-335.
- EDWARDS J.R. (1988)**  
 `The Determinants And Consequences Of Coping With Stress At Work.'  
 In: COOPER C.L.; PAYNE R. (1988) [Eds.]  
 `CAUSES, COPING AND CONSEQUENCES OF STRESS AT WORK.'  
 John Wiley and Sons: Chichester.
- EDWARDS J.R. (1991)**  
 `The Cybernetic Coping Scale; Development And Psychometric Properties.'  
 Working Paper, Darden Graduate School Of Business Administration:  
 University Of Virginia.
- EDWARDS J.R.; BAGLIONI A.J. (1993)**  
 `The Measurement Of Coping With Stress: Construct Validity Of The Ways Of  
 Coping Checklist And The Cybernetic Coping Scale.'  
*WORK AND STRESS* Vol 7(1) pp 17-31.
- EISDORFER C.; COHEN D.; KLEINMAN A.; MAXIM P. (1981) [Eds.]**  
 `MODELS FOR CLINICAL PSYCHOPATHOLOGY'  
 Spectrum Publications Scientific And Medical Books: New York.
- ELDRIDGE G.D. (1991)**  
 `Contextual Issues In The Assessment Of Post-Traumatic Stress Disorder.'  
*JOURNAL OF TRAUMATIC STRESS* Vol 4(1) pp 7-23.
- ELLIS A. (1978)**  
 `What People Can Do For Themselves To Cope With Stress.'  
 In: COOPER C.L.; PAYNE R. (1978) [Eds.]  
 `STRESS AT WORK.'  
 John Wiley and Sons: Chichester.
- EMBRY C.K. (1990)**  
 `Psychotherapeutic Interventions In Chronic Posttraumatic Stress  
 Disorder.'  
 In: WOLF M.E.; MOSNAIM A.D. (1990) [Eds.]
- EPSTEIN S.; KATZ L. (1992)**  
 `Coping Ability, Stress Productive Load And Symptoms.'  
*JOURNAL OF PERSONALITY AND SOCIAL PSYCHOLOGY*  
 Vol 62(5) pp 813-825.
- ERIKSON E.H. (1968)**  
 `IDENTITY: YOUTH AND CRISIS'  
 W.W. Norton: New York.
- EYSENCK H.J. (1952)**  
 `The Effects Of Psychotherapy.'  
*JOURNAL OF CONSULTING PSYCHOLOGY* Vol 16 pp 319-324.

**EYSENCK H.J.; EYSENCK S.B.G. (1964)**

'*MANUAL OF THE EYSENCK PERSONALITY INVENTORY.*'  
London University Press: London.

**FAIN D.B.; McCORMICK G.M. (1988)**

'Use Of Coping Mechanisms As A Means Of Stress Reduction In North Louisiana.'

*JOURNAL OF POLICE SCIENCE AND ADMINISTRATION*  
Vol 16(1) pp 21-28.

**FARMER R.E. (1990)**

'Clinical And Managerial Implications Of Stress Research On The Police.'

*JOURNAL OF POLICE SCIENCE AND ADMINISTRATION*  
Vol 17(3) pp 205-218.

**FIRTH-COZENS J. (1992)**

'The Role Of Early Family Experiences In The Perception Of Organizational Stress: Fusing Clinical And Organizational Perspectives.'

*JOURNAL OF OCCUPATIONAL AND ORGANIZATIONAL PSYCHOLOGY*  
Vol 65 pp 61-75.

**FIRTH-COZENS J.; HARDY G.E. (1992)**

'Occupational Stress, Clinical Treatment And Changes In Job Perceptions.'

*JOURNAL OF OCCUPATIONAL AND ORGANIZATIONAL PSYCHOLOGY*  
Vol 65 pp 81-88.

**FISHER J.D.; NADLER A. (1982)**

'Determinants Of Recipients Reactions To Aid: Donor-Recipient Similarity And Perceived Dimensions Of Problems.'

In: *WILLS T.A [Ed.]*

'*BASIC PROCESSES IN HELPING RELATIONSHIPS.*'

Academic Press: London.

**FISHER J.D.; NADLER A.; DEPAULO B.M. (1983) [Eds.]**

'*NEW DIRECTIONS IN HELPING.*'

Volumes I and II

Academic Press: London.

**FISHER J.D.; NADLER A.; WHITCHER-ALAGNA S. (1983)**

'Four Conceptualisations Of Reactions To Aid.'

In: *FISHER J.D.; NADLER A.; DEPAULO B.M. (1983) [Eds.]*

'*NEW DIRECTIONS IN HELPING.*' Volume I

Academic Press: London.

**FLACH F. (1990)**

'The Resilience Hypothesis And Posttraumatic Stress Disorder.'

In: *WOLF M.E.; MOSNAIM A.D. (1990) [Eds.]*

**FLANNERY R.B.; FLANNERY G.J. (1990)**

'Sense Of Coherence, Life Stress, And Psychological Distress: A Prospective Methodological Study.'

*JOURNAL OF CLINICAL PSYCHOLOGY* Vol 46(4) pp 415-420.

**FLANNERY R.B.; HARVEY M.R. (1991)**

'Psychological Trauma And Learned Helplessness: Seligman's Paradigm Reconsidered.'

*PSYCHOTHERAPY* Vol 28(2) pp 374-378.

**FLETCHER B.C. (1988)**

'The Epidemiology Of Occupational Stress.'  
In: COOPER C.L.; PAYNE R. (1988) [Eds.]  
'CAUSES, COPING AND CONSEQUENCES OF STRESS AT WORK.'  
John Wiley and Sons: Chichester.

**FOLKMAN S.; LAZARUS R.S. (1980)**

'An Analysis Of Coping In A Middle-Aged Community Sample.' *JOURNAL OF HEALTH AND SOCIAL BEHAVIOUR* Vol 21 pp 219-239.

**FOLKMAN S.; LAZARUS R.S.; DUNKEL-SCHETTER C.;  
DELONGIS A.; GRUEN R.J. (1986)**

'Dynamics Of A Stressful Encounter: Cognitive Appraisal, Coping And Encounter Outcomes.'  
*JOURNAL OF PERSONALITY AND SOCIAL PSYCHOLOGY*  
Vol 50 pp 992-1003.

**FOLKMAN S.; LAZARUS R.S.; GRUEN R.J.; DELONGIS A. (1986)**

'Appraisal, Coping, Health Status, And Psychological Symptoms.'  
*JOURNAL OF PERSONALITY AND SOCIAL PSYCHOLOGY*  
Vol 50(3) pp 571-579.

**FOY D.W. (1992) [Ed.]**

'TREATING PTSD: COGNITIVE-BEHAVIORAL STRATEGIES.'  
The Guildford Press: New York.

**FRANKENHAEUSER M. (1980)**

'Psychoneuroendocrine Approaches To The Study Of Stressful Person-Environment Transactions.'  
In: SELYE'S H. [Ed.]  
'SELYE'S GUIDE TO STRESS RESEARCH.' Volume I  
Van Nostrand Reinhold Co: London.

**FREEDY J.R.; SHAW D.L.; JARELL M.P.; MASTERS C.R. (1992)**

'Towards An Understanding Of The Psychological Impact Of Natural Disasters: An Application Of The Conservation Resources Stress Model.'  
*JOURNAL OF TRAUMATIC STRESS* Vol 5(3) pp 441-454.

**FRENCH J.R.P.; CAPLAN R.D.; VAN HARRISON R. (1982)**

'THE MECHANISMS OF JOB STRESS AND STRAIN.'  
John Wiley and Sons: Chichester.

**FRESE M. (1986)**

'Coping As A Moderator And Mediator Between Stress At Work And Psychosomatic Complaints.'  
In: APPELY M.H. TRUMBULL R. (1986) [Eds.]

**FRESE M.; ZAPF D. (1988)**

'Methodological Issues In The Study Of Work Stress: Objective Vs Subjective Measurement Of Work Stress And The Question Of Longitudinal Studies.'  
In: COOPER C.L.; PAYNE R. (1988) [Eds.]  
'CAUSES, COPING AND CONSEQUENCES OF STRESS AT WORK.'  
John Wiley and Sons: Chichester.



- FREUD S. (1926)**  
 `Inhibitions, Symptoms And Anxiety.'  
 In: STRACHEY J. [Trans. Ed.]  
 `THE STANDARD EDITION OF THE COMPLETE PSYCHOLOGICAL WORKS OF SIGMUND  
 FREUD. Volume 20.  
 Hogarth Press: London (1959).
- FRIEDMAN M.; ROSENMAN R.H. (1959)**  
 `Association Of Specific Overt Behaviour Pattern With Blood And  
 Cardiovascular Findings - Blood Cholesterol Level, Blood Clotting Time,  
 Incidence Of Arcus Senilis, And Clinical Artery Disease.'  
 JOURNAL OF AMERICAN MEDICAL ASSOCIATION  
 Vol 169(12) pp 1286-1296.
- FUNK S.C.; HOUSTON B.K. (1987)**  
 `A Critical Analysis Of The Hardiness Scale's Validity And Utility.'  
 JOURNAL OF PERSONALITY AND SOCIAL PSYCHOLOGY  
 Vol 53(5) pp 572-578.
- FUNK S.C. (1992)**  
 `Hardiness: A Review Of Theory And Research.'  
 HEALTH PSYCHOLOGY Vol 11(4) pp 335-345.
- GAINES J.; JERMIER J.M. (1983)**  
 `Emotional Exhaustion In A High Stress Organisation.'  
 ACADEMY OF MANAGEMENT JOURNAL Vol 26(4) pp 567-586.
- GAL R.; MANGELSDORFF A.D. (1991) [Eds.]**  
 `HANDBOOK OF MILITARY PSYCHOLOGY'.  
 John Wiley And Sons: Chichester.
- GENTZ D. (1986)**  
 `Stress - A Psycho-Semantic Perspective.'  
 In: REESE J.T.; GOLDSTEIN H. (1986) [Eds.]  
 `PSYCHOLOGICAL SERVICES FOR LAW ENFORCEMENT.'  
 U.S. DEPT. OF JUSTICE.  
 Federal Bureau of Investigation: Washington D.C.
- GERSONS B.P.R. (1989)**  
 `Patterns Of PTSD Among Police Officers Following Shooting Incidents: A  
 Two-Dimensional Model And Treatment Implications.'  
 JOURNAL OF TRAUMATIC STRESS Vol 2(3) pp 247-257.
- GERSONS B.P.R.; CARLIER I.V.E. (1990)**  
 `Post Traumatic Stress Disorder And The Police: The Scope Of The Issue.'  
 Paper Presented To The Second European Conference On Traumatic Stress,  
 Noordwijkerhout, The Netherlands.
- GERSONS B.P.R.; CARLIER I.V.E. (1992)**  
 `Post Traumatic Stress Disorder: The History Of A Recent Concept.'  
 BRITISH JOURNAL OF PSYCHIATRY Vol 161 pp 742-748.
- GERSTEIN L.; JANKOWSKI J.; BAYER G.; EICHENHOFER D.;  
 VALUTIS W. (1990)**  
 `Supervisory Characteristics And Beliefs About Troubled Employees.'  
 EMPLOYEE ASSISTANCE QUARTERLY Vol 5(4) pp 49-62.

- GLOWINKOWSKI S.P.; NICHOLSON N. (1984)**  
 'The Promotion Pathology: A Study Of British Police Inspectors.'  
 MEMO 659, MRC/ESRC SAPU, UNIVERSITY OF SHEFFIELD.
- GLOWINKOWSKI S.P.; COOPER C.L. (1985)**  
 'Current Concerns In Organisational Stress Research.'  
 THE PSYCHOLOGIST Vol 38 pp 212-216.
- GRANT N.K.; GARRISON C.G.; McCORMICK K. (1990)**  
 'Perceived Utilization, Job Satisfaction and Advancement Of Police Women.'  
 PUBLIC PERSONNEL MANAGEMENT Vol 19(2) pp 147-154.
- GREENE J.; D'OLIVEIRA M. (1982)**  
 'LEARNING TO USE STATISTICAL TESTS IN PSYCHOLOGY.'  
 Open University Press: Milton Keynes.
- GODEREZ B.I. (1987)**  
 'The Survivor Syndrome: Massive Psychic Trauma And Post Traumatic Stress Disorder.'  
 BULLETIN OF THE MENNINGER CLINIC Vol 51(1) pp 96-113.
- GODSCHALX S.M. (1984)**  
 'Effects Of Mental Health Educational Programme Upon Police Officers.'  
 RESEARCH IN NURSING AND HEALTH Vol 7(2) pp 111-117.
- GOODCHILD M.E.; DUNCAN-JONES P. (1985)**  
 'Chronicity And The General Health Questionnaire.'  
 BRITISH JOURNAL OF PSYCHIATRY Vol 146 pp 55-61.
- GOLDBERG D.P. (1972)**  
 'THE DETECTION OF PSYCHIATRIC ILLNESS BY QUESTIONNAIRE.'  
 Oxford University Press: Oxford.
- GOLDSTEIN A.P.; MONTI P.J.; SARDINO T.J.; GREEN D.J. (1977)**  
 'POLICE CRISIS INTERVENTION.'  
 Behaviourdelia: Michigan.
- GOLDSTEIN H.A. (1988)**  
 'Police Psychology: Influencing Organisational Character.'  
 In: REESE J.T.; HORN J.M. (1988) [Eds.]  
 'POLICE PSYCHOLOGY: OPERATIONAL ASSISTANCE.'  
 U.S. DEPT. OF JUSTICE.  
 Federal Bureau of Investigation: Washington D.C.
- GOLEMBIEWSKI R.T.; KIM B-S. (1990)**  
 'Burnout In Police Work: Stressors, Strain, And The Phase Model.'  
 POLICE STUDIES Vol 13(2) pp 74-80.
- GOUDSMIT E.M.; GADD R. (1991)**  
 'All In The Mind? The Psychologisation Of Illness.'  
 THE PSYCHOLOGIST Vol 4 pp 449-453.
- GRELLER M.M.; PARSONS C.K.; MITCHELL D.R.D. (1992)**  
 'Additive Effects And Beyond: Occupational Stressors And Social Buffers In A Police Organisation.'  
 In: QUICK J.C.; MURPHY L.R.; HURRELL J.J. (1992) [Eds.]

**GRIFFREY S. (1989)**

'Psychological Service Evaluation: Customers Views.'  
*EDUCATIONAL PSYCHOLOGY IN PRACTICE* Vol 4(4) pp 179-183.

**GROSS A.E.; MCMULLEN P.A. (1983)**

'Models Of The Help-Seeking Process.'  
In: *DEPAULO B.M.; NADLER A.; FISHER J.A. (1983) [Eds.]*  
'NEW DIRECTIONS IN HELPING.' Volume II  
*Academic Press: London.*

**GUPPY A.; WEATHERSTONE L. (1997)**

'Coping Strategies, Dysfunctional Attitudes And Well-Being.'  
*WORK AND STRESS* Vol 11 pp 56-64.

**HAAGA D.A.F.; DYCK M.J.; ERNST D. (1991)**

'Empirical Status Of Cognitive Theory Of Depression.'  
*PSYCHOLOGICAL BULLETIN* Vol 110(2) pp 215-236.

**HACKMAN R.; LAWLER E.E. (1971)**

'Employee Reactions To Job Characteristics.'  
*JOURNAL OF APPLIED PSYCHOLOGY* Monogram 55 pp 259-286.

**HAMMEN C.; MIKLOWITZ D.J.; DYCK D.G. (1986)**

'Stability And Severity Parameters Of Depressive Self-Schema Responding.'  
*JOURNAL OF SOCIAL AND CLINICAL PSYCHOLOGY* Vol 4(1) pp 23-45.

**HARDY L.; PARFITT G.; BAKER S. (1989)**

'Physical Fitness And Coping With Psychological Stress: THE SURREY PROJECT.'  
*HOME OFFICE: Police Requirements Support Unit.*

**HART P.M.; WEARING A.J.; HEADEY B. (1995)**

'Police Stress And well-Being: Integrating Personality, Coping And Daily Work Experiences.'  
*JOURNAL OF OCCUPATIONAL AND ORGANISATIONAL PSYCHOLOGY*  
Vol 68 pp 133-156.

**HAYS W.L. (1991)**

'STATISTICS'  
FIFTH EDITION.  
*Harcourt Brace: London.*

**HERMAN J.L. (1992)**

'Complex PTSD: A Syndrome In Survivors Of Prolonged And Repeated Trauma.'  
*JOURNAL OF TRAUMATIC STRESS* Vol 5(3) pp 377-391.

**HETHERINGTON A.; GUPPY A. (1991)**

'Stress And Hardiness In Police Officers.'  
SUMMARY REPORT December 1991 (unpublished)  
*Cranfield Institute Of Technology: Applied Psychology Unit.*

**HETHERINGTON A. (1992)**

'Human Resources In Times Of Stress.'  
*HOME OFFICE: Police Requirements Support Unit.*

**HETHERINGTON A. (1993)**

'Traumatic Stress On The Roads.'  
*JOURNAL OF SOCIAL BEHAVIOUR AND PERSONALITY*  
Vol 8(5) pp 369-378.

**HETHERINGTON A. (1994)**

'Stress In Accident And Emergency Personnel And Road Traffic Patrol Officers.'

*Doctoral Dissertation (Unpublished)*

*Cranfield University, Department Of Applied Psychology.*

**HILL C.V.; OEI T.P.S.; HILL M.A. (1989)**

'An Empirical Investigation Of The Specificity And Sensitivity Of The Automatic Thoughts Questionnaire And Dysfunctional Attitudes Scale.'

*JOURNAL OF PSYCHOPATHOLOGY AND BEHAVIORAL ASSESSMENT*

*Vol 11(4) pp 291-311.*

**HILL K.Q.; CLAWSON M. (1988)**

'The Health Hazards Of 'Street Level' Bureaucracy: Mortality Among The Police.'

*JOURNAL OF POLICE SCIENCE AND ADMINISTRATION*

*Vol 16(4) pp 243-248.*

**HILLAS S.; COX.T. (1986)**

'Post Traumatic Stress Disorder: An Overview Of The Literature.'

'*STRESS IN THE POLICE SERVICE: JOINT WORKING PARTY ON ORGANISATIONAL HEALTH AND WELFARE.*'

*HOME OFFICE: Police Requirements Support Unit.*

**HILLIS H.; NORVELL N. (1991)**

'An Examination Of Hardiness And Neuroticism As Potential Moderators Of Stress Outcomes.'

*BEHAVIORAL MEDICINE Vol 17(1) pp 31-38.*

**HOBFOLL S.E. (1991)**

'Traumatic Stress: A Theory Based On Rapid Loss Of Resources.'

*ANXIETY RESEARCH Vol 4(3) pp 187-197.*

**HOFF L.A. (1989)**

'*PEOPLE IN CRISIS: UNDERSTANDING AND HELPING.*'

*THIRD EDITION*

*Addison-Wesley Publishing: California.*

**HOLAHAN C.J.; MOOS R.H. (1987)**

'Personal And Contextual Determinants Of Coping Strategies.'

*JOURNAL OF PERSONALITY AND SOCIAL PSYCHOLOGY*

*Vol 52(5) pp 946-955.*

**HOLAHAN C.J.; MOOS R.H. (1991)**

'Life Stressors, Personal And Social Resources, And Depression: A 4-Year Structural Model.'

*JOURNAL OF ABNORMAL PSYCHOLOGY Vol 100(1) pp 31-38.*

**HOLLINGSWORTH C.; MATTHEWS G.; HARTNETT O.M. (1988)**

'Job Satisfaction And Mood: An Exploratory Study.'

*WORK AND STRESS Vol 2(3) pp 225-232.*

**HOLT P.; FINE M.J.; TOLLEFSON N. (1987)**

'Mediating Stress: Survival Of The Hardy.'

*PSYCHOLOGY IN SCHOOLS Vol 24(1) pp 51-58.*

**HOME OFFICE AFFAIRS COMMITTEE. (1991)**

*'POLICE SICKNESS: FIFTH REPORT.'*

*H.M.S.O.: London.*

**HONIG A.M. (1988)**

*'Cumulative Trauma As Contributes To Chronicity In Schizophrenia.'*

*BULLETIN OF THE MENNINGER CLINIC Vol 52(5) pp 423-434.*

**HOROWITZ M.J.; WILMER N.; ALVAREZ W. (1979)**

*'Impact Of Event Scale: A Measure Of Subjective Stress.'*

*PSYCHOSOMATIC MEDICINE Vol 41(3) pp 209-218.*

**HOROWITZ M.J.; WILMER N.; KALTREIDER N.; ALVAREZ W. (1980)**

*'Signs And Symptoms Of PTSD.'*

*ARCHIVES OF GENERAL PSYCHIATRY Vol 37(1) pp 85-92.*

**HOROWITZ M.J.; WILMER N. (1981)**

*'Life Events, Stress And Coping.'*

*In: POON L. [Ed.]*

*'AGING IN THE 80s.'*

*American Psychiatric Association: Washington D.C.*

**HOROWITZ M.J. (1990)**

*'Post Traumatic Stress Disorder: Psychosocial Aspects Of Diagnosis.'*

*INTERNATIONAL JOURNAL OF MENTAL HEALTH Vol 19(1) pp 21-36.*

**HOROWITZ M.J. (1993)**

*'Stress Response Syndromes: A Review Of Posttraumatic Stress And Adjustment Disorders.'*

*In: WILSON J.P.; RAPHAEL B. (1993) [Eds.]*

**HOSEN R. (1990)**

*'Strategies For Enhancing Psychological Well-Being.'*

*PSYCHOLOGY: A JOURNAL OF HUMAN BEHAVIOUR Vol 27(2) pp 20-29.*

**HOUSE J.S. (1974)**

*'Occupational Stress And Coronary Heart Disease: A Review And Theoretical Investigation.'*

*JOURNAL OF HEALTH AND SOCIAL BEHAVIOUR Vol 15 pp 12-27.*

**HULL J.G.; VAN TREUREN R.R.; VIRNELLI S. (1987)**

*'Hardiness And Health: A Critique And Alternative Approach.'*

*JOURNAL OF PERSONALITY AND SOCIAL PSYCHOLOGY*

*Vol 53(3) pp 518-530.*

**INTERNATIONAL LAW ENFORCEMENT STRESS ASSOCIATION (1989)**

*'POLICE STRESS' Vol 9(1) pp 31.*

**INWALD R.E. (1988)**

*'The Development Of Guidelines For Psychological Screening In Law Enforcement Agencies.'*

*IN: REESE J.T.; HORN J.M. (1988) [Eds.]*

*'POLICE PSYCHOLOGY: OPERATIONAL ASSISTANCE.'*

*U.S. DEPARTMENT OF JUSTICE*

*Federal Bureau Of Investigation: Washington D.C.*

**IRION J.C. ; BLANCHARD-FIELDS F. (1987)**

'A Cross Sectional Comparison Of Adaptive Coping In Adulthood.'  
*JOURNAL OF GERONTOLOGY* Vol 42(5) pp 502-505.

**IVANCEVITCH J.M. ; MATTESON M.T. (1984)**

'A Type A-B Person-Work Environment Interaction Model For Examining Occupational Stress And Consequences.'  
*HUMAN RELATIONS* Vol 37(7) pp 491-513.

**JANIK J. (1990)**

'What Value Are Cognitive Defenses In Critical Incident Stress?'  
In: REESE J.T. ; HORN J.M. ; DUNNING C. (1990) [Eds.]  
'CRITICAL INCIDENTS IN POLICING.'  
U.S. DEPT. OF JUSTICE.  
Federal Bureau of Investigation: Washington D.C.

**JANIK J. (1992)**

'Addressing Cognitive Defenses In Critical Incident Stress.'  
*JOURNAL OF TRAUMATIC STRESS* Vol 5(3) pp 497-503.

**JANISSE M.P. ; EDGUER N. ; DYCK D.G. (1986)**

'Type A Behaviour, Anger Expression, And Reactions To Anger Imagery.'  
*MOTIVATION AND EMOTION* Vol 10(4) pp 371-386.

**JANOFF-BULMAN R. ; WORTMAN C.D. (1977)**

'Attribution Of Blame And Coping In The Real World: Severe Accident Victims React to Their Lot.'  
*JOURNAL OF PERSONALITY AND SOCIAL PSYCHOLOGY*  
Vol 35(5) pp 351-363.

**JANOFF-BULMAN R. ; FRIEZE I.H. (1983)**

'A Theoretical Perspective for Understanding Reactions To Victimization.'  
*JOURNAL OF SOCIAL ISSUES* Vol 39 pp 1-17.

**JANOFF-BULMAN R. (1985a)**

'The Aftermath Of Victimization: Rebuilding Shattered Assumptions.'  
In: FIGLEY C.R. [Ed.]  
'TRAUMA AND ITS WAKE'  
Burner/Mazel: New York.

**JANOFF-BULMAN R. (1985b)**

'Characterological Versus Behavioral Self-Blame: Inquiries Into Depression And Rape.'  
*JOURNAL OF PERSONALITY AND SOCIAL PSYCHOLOGY*  
Vol 37(10) pp 1798-1809.

**JANOFF-BULMAN R. ; TIMKO C. (1987)**

'Coping With Traumatic Life Events: The Role Of Denial In Light Of People's Assumptive Worlds.'  
In: SNYDER C.R. ; FORD C.E. (1987) [Eds.]  
'COPING WITH NEGATIVE LIFE EVENTS: CLINICAL AND SOCIAL PSYCHOLOGICAL PERSPECTIVES.' Plenum Press: New York.

**JANOFF-BULMAN R.; FRIEZE I.H. (1987)**

'The Role Of Gender In Reactions To Criminal Victimization.'  
In: BARNETT R.C.; BIENER L.; BARUCH G.K. (1987) [Eds]  
'GENDER AND STRESS.'  
The Free Press: New York.

**JANOFF-BULMAN R. (1989)**

'Assumptive Worlds And The Stress Of Traumatic Events: Applications Of  
The Schema Construct.'  
SOCIAL COGNITION Vol 7(2) pp 113-136.

**JERMIER J.M.; SLOCUM J.W.; FRY L.W.; GAINES J. (1991)**

'Organizational Subcultures In A Soft Bureaucracy: Resistance Behind The  
Myth And Facade Of An Official Culture.'  
ORGANIZATION SCIENCE Vol 2(2) pp 170-194.

**JOHNSON J.S.; BORNSTEIN R.F. (1991)**

'Does Daily Stress Independently Predict Psychopathology.'  
JOURNAL OF SOCIAL AND CLINICAL PSYCHOLOGY Vol 10(1) pp 58-74.

**JONES J.W.; BOYE M.W. (1992)**

'Job Stress And Employee Counterproductivity.'  
In: QUICK J.C.; MURPHY L.R.; HURRELL J.J. (1992) [Eds.]

**JONES P.S. (1991)**

'Adaptability: A Personal Resource For Health.'  
SCHOLARLY INQUIRY FOR NURSING PRACTICE Vol 5(2) pp 95-108.

**JOSEPH S.A.; WILLIAMS R.; YULE W. (1992)**

'Crisis Support, Attributional Style, Coping Style, And Post-Traumatic  
Symptoms.'  
PERSONALITY AND INDIVIDUAL DIFFERENCES  
Vol 13(11) pp 1249-1251.

**JUDGE T.A.; LOCKE E.A. (1993)**

'Effect Of Dysfunctional Thought Processes On Subjective Well-Being And  
Job Satisfaction.'  
JOURNAL OF APPLIED PSYCHOLOGY Vol 78(3) pp 475-490.

**KAHN R.L.; WOLFE D.M.; QUINN R.P.; SNOEK J.D.;**

**ROSENTHAL R. (1964)**

'ORGANISATIONAL STRESS: STUDIES IN ROLE CONFLICT AND AMBIGUITY.'  
John Wiley and Sons: New York.

**KAPLAN A.G. (1988)**

'How Normal Is Normal Development? Some Connections Between Adult  
Development And The Roots Of Abuse And Victimization.'  
In: STRAUS M.B. (1988) [Ed.]

**KARUZA J.; ZEVON M.A.; RABINOWITZ V.C.; BRICKMAN P. (1982)**

'Attribution Of Responsibility By Helpers And Recipients.'  
In: WILLS T.A. [Ed.]  
'BASIC PROCESSES IN HELPING RELATIONSHIPS.'  
Academic Press: London.

**KASLOF L.J. (1989)**

'Police Stress: The Hidden Assailant.'  
Special Issue Mind-Body Health At Work.  
*ADVANCES* Vol 6(1) pp 20-22.

**KATZ D.; KAHN R.L. (1978)**

'*THE SOCIAL PSYCHOLOGY OF ORGANISATIONS.*'  
*SECOND EDITION.*  
John Wiley and Sons: New York.

**KATZ J. (1998)**

'Psychological Stability, Change And Mental Well-Being: The Exploration  
Of Clinical And Non-Clinical Populations.'  
*PH.D. Thesis (Unpublished)*  
Cranfield University, Cranfield, Bedfordshire.

**KEARNS J. (1986)**

'Stress At Work: The Challenge Of Change.'  
*'BUPA SERIES THE MANAGEMENT OF HEALTH: 1 STRESS AND THE CITY.'*

**KEILSON H. (1992)**

'*SEQUENTIAL TRAUMATISATION IN CHILDREN: A CLINICAL AND STATISTICAL  
FOLLOW-UP STUDY ON THE FATE OF JEWISH WAR ORPHANS IN THE NETHERLANDS.*'  
Magnes Press: The Hebrew University, Jerusalem.

**KELLOWAY E.K.; BARLING J. (1991)**

'Job Characteristics, Role Stress And Mental Health.'  
*JOURNAL OF OCCUPATIONAL PSYCHOLOGY* Vol 64 pp 291-304.

**KIRSCHMANN E.; SCRIVNER E.; ELLISON K. (1992)**

'Work And Well-Being: Lessons From Law Enforcement.'  
In: *QUICK J.C.; MURPHY L.R.; HURRELL J.J. (1992) [Eds.]*

**KLARREICH S.H.; DI GIUSEPPE R.; DI MATTIA D.J. (1987)**

'E.A.P's Mind Over Myth.'  
*PERSONNEL ADMINISTRATOR* Feb 1987 pp 119-121.

**KLUFT R.P. (1990)**

'Dissociation And Subsequent Vulnerability: A Preliminary Study.'  
*DISSOCIATION: PROGRESS IN THE DISSOCIATIVE DISORDERS*  
Vol 3(3) pp 167-173.

**KOBASA S.C. (1982)**

'The Hardy Personality: Toward A Social Psychology Of Stress And Health.'  
In: *SANDERS G.S.; SULLS J. (1982) [Eds.]*  
'*SOCIAL PSYCHOLOGY OF HEALTH AND ILLNESS.*'  
Lawrence Erlbaum Associates: New York.

**KOBASA S.C.; MADDI S.R.; KAHN S. (1982)**

'Hardiness And Health: A Prospective Study.'  
*JOURNAL OF PERSONALITY AND SOCIAL PSYCHOLOGY*  
Vol 42 pp 168-177.

**KOBASA S.C.; MADDI S.R.; PUCCHETTI M.C. (1982)**

'Personality And Exercise As Buffers In The Stress-Illness Relationship.'  
*JOURNAL OF BEHAVIORAL MEDICINE* Vol 5 pp 391-404.



- KOESKE G.F.; KIRK S.A.; KOESKE R.D. (1993)**  
 `Coping With Job Stress: Which Strategies Work Best?.'  
*JOURNAL OF OCCUPATIONAL AND ORGANISATIONAL PSYCHOLOGY*  
 Vol 66 pp 319-335.
- KORETZKY M.B.; PECK A.H. (1990)**  
 `Validation And Cross-Validation Of The PTSD Subscale Of The MMPI With  
 Civilian Trauma Victims.'  
*JOURNAL OF CLINICAL PSYCHOLOGY* Vol 46(3) pp 296-300.
- KOZMA A.; STONES M.J. (1978)**  
 `Some Research Issues And Findings In The Study Of Psychological Well-  
 Being In The Aged.'  
*CANADIAN PSYCHOLOGICAL REVIEW* Vol 19(3) pp 241-249.
- KROES W.H.; MARGOLIS B.L.; HURRELL J.J. (1974)**  
 `Job Stress In Policemen.'  
*JOURNAL OF POLICE SCIENCE AND ADMINISTRATION*  
 Vol 2(2) pp 145-155.
- KROES W.H. (1988)**  
 `BROKEN COPS: THE OTHER SIDE OF POLICING.'  
 Charles C. Thomas: Springfield Illinois.
- KRUEGER G.P. (1991)**  
 `Sustained Military Performance In Continuous Operations: Combatant  
 Fatigue, Rest And Sleep Needs.'  
 In: GAL R.; MANGELSDORFF A.D. (1991) [Eds.]
- KUHNE A.; ORR S.P.; BARAGA E. (1993)**  
 `Psychometric Evaluation Of Posttraumatic Stress Disorder: The  
 Multidimensional Personality Questionnaire As An Adjunct To The MMPI.'  
*JOURNAL OF CLINICAL PSYCHOLOGY* Vol 49(2) pp 218-225.
- KULKA R.A.; SCHLENGER W.E. (1993)**  
 `Survey Research And Field Designs For The Study Of Posttraumatic Stress  
 Disorder.'  
 In: WILSON J.P.; RAPHAEL B. (1993) [Eds.]
- KWON S.M.; OEI T.P.S. (1992)**  
 `Differential Causal Roles Of Dysfunctional Attitudes And Automatic  
 Thoughts In Depression.'  
*COGNITIVE THERAPY AND RESEARCH* Vol 16(3) pp 309-328.
- LAIBOW R.E.; LAUE C.S. (1993)**  
 `Posttraumatic Stress Disorder In Experienced Anomalous Trauma.'  
 In: WILSON J.P.; RAPHAEL B. (1993) [Eds.]
- LAMBERT C.E.; LAMBERT V.A. (1987)**  
 `Hardiness: Its Development And Relevance To Nursing.'  
*IMAGE JOURNAL OF NURSING PRACTICE* Vol 19(2) pp 92-95.
- LANE D.A. (1990)**  
 `Counselling Psychology In Organisations.'  
*THE PSYCHOLOGIST* Vol 12 pp 540-544.

- LARSSON G.; KEMPE C.; STARRIN B. (1988)**  
 `Appraisal And Coping Processes In Acute Time-Limited Stressful Situations: A Study Of Police Officers.'  
*EUROPEAN JOURNAL OF PERSONALITY* Vol 2 pp 259-276.
- LAUB D.; AVERHAHN N.C. (1993)**  
 `Knowing And Not Knowing Massive Psychic Trauma: Forms Of Traumatic Memory.'  
*INTERNATIONAL JOURNAL OF PSYCHOANALYSIS* Vol 74(2) pp 287-302.
- LAUX L. (1986)**  
 `A Self-Presentational View Of Coping With Stress.'  
 In: *APPLEY M.H.; TRUMBULL R. (1986) [Eds.]*
- LAZARUS R.S. (1966)**  
 `PSYCHOLOGICAL STRESS AND THE COPING PROCESS.'  
 McGraw-Hill: New York.
- LAZARUS R.S. (1981)**  
 `The Stress And Coping Paradigm.'  
 In: *EISDORFER C.; COHEN D.; KLEINMAN A.; MAXIM P. (1981) [Eds.]*
- LAZARUS R.S. (1982)**  
 `Thoughts On The Relations Between Emotion And Cognition.'  
*AMERICAN PSYCHOLOGIST* Vol 37 pp 1019-1024.
- LAZARUS R.S. (1983)**  
 `The Costs And Benefits Of Denial.'  
 In: *BREZNITZ S. [Ed.] `THE DENIAL OF STRESS.'*  
 International Universities Press: New York.
- LAZARUS R.S.; FOLKMAN S. (1984)**  
 `STRESS, APPRAISAL AND COPING.'  
 Springer: New York.
- LAZARUS R.S.; FOLKMAN S. (1986)**  
 `Cognitive Theories Of Stress And The Issue Of Circularity.'  
 In: *APPLEY M.H.; TRUMBULL R. (1986) [Eds.]*
- LAZARUS R.S.; LAUNIER R. (1978)**  
 `Stress-Related Transactions Between Person And Environment.'  
 In: *PERVIN L.A.; LEWIS M. [Eds.]*  
 `PERSPECTIVES IN INTERACTIONAL PSYCHOLOGY.'  
 Plenum Press: New York.
- LEAK G.K.; WILLIAMS D.E. (1989)**  
 `Relationship Between Social Interest, Alienation, And Psychological Hardiness.'  
*JOURNAL OF INDIVIDUAL PSYCHOLOGY* Vol 45(3) pp 369-375.
- LEFCOURT H. (1973)**  
 `The Function Of Illusions Of Control And Freedom.'  
*AMERICAN PSYCHOLOGIST* May 1973 pp 417-425.
- LEFCOURT H.M. (1976)**  
 `LOCUS OF CONTROL: CURRENT TRENDS IN THEORY AND RESEARCH.'  
 Lawrence Erlbaum Associates: Hillsdale, New Jersey.

- LEMKAU J.P.; BRYANT F.B.; BRICKMAN P. (1982)**  
 `Client Commitment To The Helping Relationship.'  
 In: WILLS T.A. [Ed.]  
 `BASIC PROCESSES IN HELPING RELATIONSHIPS.'  
 Academic Press: London.
- LESTER D.; LEITNER L.A.; POSNER I. (1984)**  
 `The Effects Of A Stress Management Programme On Police Officers.'  
 INTERNATIONAL REVIEW OF APPLIED PSYCHOLOGY  
 Vol 33(1) pp 25-31.
- LEVI L. (1984)**  
 `Stress in Industry: Effects And Prevention.'  
 No 51 OCCUPATIONAL SAFETY AND HEALTH.  
 International Labour Organisation: Geneva.
- LEWIN K. (1951)**  
 `Field Theory In Social Science.'  
 CARTWRIGHT D. [Ed.]  
 Harper and Row: New York.
- LEWIS B.M. (1990)**  
 `Social Workers' Role In Promoting Occupational Health And Safety.'  
 EMPLOYEE ASSISTANCE QUARTERLY Vol 5(1) pp 99-118.
- LEWIS T. (1918)**  
 `THE SOLDIER'S HEART AND THE EFFORT SYNDROME.'  
 Shaw And Sons: London.
- LI D.; SPIEGAL D. (1992)**  
 `A Mind Network Model Of Dissociative Disorders.'  
 PSYCHIATRIC ANNALS Vol 22(3) pp 144-147.
- LIGHTBODY J. (1981)**  
 `Counselling In Organisations.'  
 In: MARSHALL J.; COOPER C.L. (1981) [Eds.]  
 `COPING WITH STRESS AT WORK: CASE STUDIES FROM INDUSTRY.'  
 Gower: Hants.
- LINDEMANN E. (1944)**  
 `Symptomatology And Management Of Acute Grief.'  
 AMERICAN JOURNAL OF PSYCHIATRY Vol 101 pp 141-146.
- LOFQUIST L.H.; DAWIS R.V. (1969)**  
 `ADJUSTMENT TO WORK: A PSYCHOLOGICAL VIEW OF MAN'S PROBLEMS IN A WORK-  
 ORIENTATED SOCIETY.'  
 Appleton-Century-Crofts: New York.
- LOO R. (1985)**  
 `Policy Development For Psychological Services In The Royal Canadian  
 Mounted Police.'  
 JOURNAL OF POLICE SCIENCE AND ADMINISTRATION  
 Vol 13(2) pp 132-137.

**LOO R. (1987)**

'Policies And Programmes For Mental Health In Law Enforcement Organisations.'

*CANADA'S MENTAL HEALTH* Vol 35(3) pp 18-22.

**LORSCH J.W.; MORSE J.J. (1974)**

'ORGANISATIONS AND THEIR MEMBERS: A CONTINGENCY APPROACH.'

Harper and Row: New York.

**LOTHANE Z. (1986)**

'The Reality Of Trauma - The Trauma Of Reality: Clinical and Theoretical Considerations.'

*ISSUES IN EGO PSYCHOLOGY* Vol 9(2) pp 13-19.

**LOVE K.; SINGER M. (1988)**

'Self-Efficacy, Psychological Well-Being, Job Satisfaction And Job Involvement: A Comparison Of Male And Female Police Officers.'

*POLICE STUDIES* Vol 11(2) pp 98-102.

**MACDONOUGH T.S. (1991)**

'Noncombat Stress In Soldiers: How It Is Manifested, How To Measure It, And How To Cope With It.'

In: GAL R.; MANGELSDORFF A.D. (1991) [Eds.]

'HANDBOOK OF MILITARY PSYCHOLOGY.'

John Wiley And Sons: New York.

**MACLEOD A.G.S. (1985)**

'EAPS And Blue Collar Stress.'

In: COOPER C.L.; SMITH M.J. (1985) [Eds.]

'JOB STRESS AND BLUE COLLAR WORK.'

John Wiley and Sons: London.

**MACRAE R.R. (1984)**

'Situational Determinants Of Coping Processes: Loss, Threat And Challenge.'

*JOURNAL OF PERSONALITY AND SOCIAL PSYCHOLOGY*

Vol 46 pp 919-928.

**MALT U.F.; WEISAETH L. (1989)**

'Disaster Psychiatry And Traumatic Stress Studies In Norway.'

*ACTA PSYCHIATRICA SCANDINAVICA* Vol 80 (Supp. 355) pp 7-12.

**MANIFOLD V. (1991)**

'A Factorial Analysis Of The DSM-III Posttraumatic Stress Disorder Criteria.'

*JOURNAL OF CLINICAL PSYCHOLOGY* Vol 47(2) pp 205-214.

**MANN J.P.; NEECE J. (1990)**

'Workers' Compensation For Law Enforcement Related Post Traumatic Stress Disorder.'

*BEHAVIORAL SCIENCES AND THE LAW* Vol 8 pp 447-456.

**MANNING M.R.; WILLIAMS R.E.; WOLFE D.M. (1988)**

'Hardiness And The Relationship Between Stressors And Outcomes.'

*WORK AND STRESS* Vol 2(3) pp 205-216.

**MANOLIAS M. (1983)**

'A Preliminary Study Of Stress In The Police Service.'  
*ACPO WORKING PARTY ON POLICE STRESS:*  
*HOME OFFICE HUMAN FACTORS GROUP.*

**MANOLIAS M.B.; HYATT-WILLIAMS A. (1993)**

'Effects Of Postshooting Experiences On Police-Authorised Firearms Officers In The United Kingdom.'  
*In: WILSON J.P.; RAPHAEL B. (1993) [Eds.]*

**MARSHALL J.; COOPER C.L. (1981)**

'The Causes Of Managerial Job Stress: A Research Note On Methods And Initial Findings.'  
*In: CORLETT E.N.; RICHARDSON J. (1981) [Eds.]*  
*'STRESS, WORK DESIGN AND PRODUCTIVITY.'*  
*John Wiley and Sons: Chichester.*

**MARTIN C.A.; McKEAN H.E.; VELTKAMP L.J. (1986)**

'Post Traumatic Stress Disorder In Police And Working With Victims: A Pilot Study.'  
*JOURNAL OF POLICE SCIENCE AND ADMINISTRATION*  
*Vol 14(2) pp 98-101.*

**MARTINEZ J.G. (1989)**

'Cooling Off Before Burning Out.'  
*ACADEMIC THERAPY Vol 24(3) pp 271-284.*

**MASER J.D.; SOLOMON S.D. (1990)**

'Psychosocial And Psychobiological Consequences Of Exposure To Extreme Stressors.'  
*JOURNAL OF APPLIED PSYCHOLOGY Vol 20(21) pp 1725-1732.*

**MASLACH C.; JACKSON S.E. (1981)**

'The Measurement Of Experienced Burnout.'  
*JOURNAL OF OCCUPATIONAL BEHAVIOUR Vol 2 pp 99-113.*

**MATHEWS A. (1993)**

'Biases In Processing Emotional Information.'  
*THE PSYCHOLOGIST: BULLETIN OF THE BRITISH PSYCHOLOGICAL SOCIETY Vol 6 pp 493-499.*

**MATTHEISEN S.B.; DYREGROV A. (1992)**

'Empirical Validation Of The Bergen Burnout Indicator.'  
*PAPER PRESENTED TO THE 25th EUROPEAN CONGRESS OF PSYCHOLOGY: BRUSSELS.*

**McCAFFERTY F.L.; DOMINGO G.D.; McCAFFERTY E.N. (1990)**

'Post-Traumatic Stress Disorder In Police Officers: Paradigm Of Occupational Stress.'  
*SOUTH MEDICAL JOURNAL Vol 83 pp 543-547.*

**McCAMMON S.; DURHAM T.W.; JACKSON ALLISON E.;**

**WILLIAMSON J.E. (1988)**

'Emergency Workers' Cognitive Appraisal And Coping With Traumatic Events.'  
*JOURNAL OF TRAUMATIC STRESS Vol 1(3) pp 353-372.*

**McCANN L.I.; PEARLMANN L.A. (1990)**

`Vicarious Traumatization; A Framework For Understanding The Psychological Effects Of Working With Victims.'  
*JOURNAL OF TRAUMATIC STRESS* Vol 3(1) pp 131-149.

**McCLELLAN K. (1990a)**

`Benefit-Cost Analysis Of The Ohio EAP.'  
*EMPLOYEE ASSISTANCE QUARTERLY* Vol 5(2) pp 67-85.

**McCLELLAN K. (1990b)**

`Early Intervention Into Addictive And Mental Health Disorders.'  
*EMPLOYEE ASSISTANCE QUARTERLY* Vol 5(4) pp 71-82.

**McFALL M.E.; MACKAY P.W.; DONOVAN D.M. (1992)**

`Combat-Related Posttraumatic Stress Disorder And Severity Of Substance Abuse In Vietnam Veterans.'  
*JOURNAL OF STUDIES ON ALCOHOL* Vol 53(4) pp 357-363.

**McFARLANE A.C. (1988)**

`Relationship Between Psychiatric Impairment And A Natural Disaster: The Role Of Distress.'  
*PSYCHOLOGICAL MEDICINE* Vol 18 pp 129-139.

**McFARLANE A.C. (1989)**

`The Treatment Of Post-Traumatic Stress Disorder.'  
*BRITISH JOURNAL OF MEDICAL PSYCHOLOGY* Vol 62 pp 81-90.

**McFARLANE A.C. (1990)**

`Vulnerability To Posttraumatic Stress Disorder.'  
In: WOLF M.E.; MOSNAIM A.D. (1990) [Eds.]

**McFARLANE A.C. (1992)**

`Avoidance And Intrusion In Posttraumatic Stress Disorder.'  
*JOURNAL OF NERVOUS AND MENTAL DISEASE* Vol 180(7) pp 439-445.

**McFARLANE A.C. (1993)**

`PTSD: Synthesis Of Research And Clinical Studies.'  
In: WILSON J.P.; RAPHAEL B. (1993) [Eds.]

**McGEE D.; BROWNE I.; KENNY V.; McGENNIS A.; PILOT J. (1984)**

`Unexperienced Experience; A Critical Reappraisal Of The Theory Of Repression And Traumatic Neurosis.'  
*IRISH JOURNAL OF PSYCHOTHERAPY* Vol 3(1) pp 7-19.

**MELAMED S.; MEIR E.I. (1981)**

`The Relationship Between Interests-Job Incongruity And Selection Of Avocational Activity.'  
*JOURNAL OF VOCATIONAL BEHAVIOUR* Vol 18(3) pp 310-325.

**MERTON V.; MERTON R.K.; BARBER E. (1983)**

`Client Ambivalence In Professional Relationships: The Problem Of Seeking Help From Strangers.'  
In: DEPAULO B.M.; NADLER A.; FISHER J.D. (1983) [Eds.]  
`NEW DIRECTIONS IN HELPING.' Volume II  
Academic Press: London.

**METTLIN C. (1976)**

'Occupational Careers And The Prevention Of Coronary-Prone Behaviour.'  
*SOCIAL SCIENCE AND MEDICINE* Vol 10 pp 367-372.

**MILETICH J.J. (1990)**

'POLICE, FIREFIGHTERS AND PARAMEDIC STRESS: AN ANNOTATED BIBLIOGRAPHY.'  
Greenwood Press: London.

**MILLER L.; BRASWELL M. (1983)**

'HUMAN RELATIONS AND POLICE WORK.'  
Waveland Press: Illinois.

**MILLER R.E. (1990)**

'Some Questions For Frank H. Leone On Provider-Based Occupational Health Programmes.'

*EMPLOYEE ASSISTANCE QUARTERLY* Vol 5(3) pp 33-42.

**MILLER T.W.; KAMENCHENKO P.; KRASNIAENKI A. (1992)**

'Assessment Of Life Stress Events: The Etiology And Measurement Of Traumatic Stress Disorder.'

*INTERNATIONAL JOURNAL OF SOCIAL PSYCHOLOGY*

Vol 38(3) pp 215-227.

**MITCHELL J.T. (1988)**

'The History, Status And Future Of Critical Incident Stress Debriefings.'  
*JOURNAL OF EMERGENCY MEDICAL SERVICES* November 1988 pp 46-52.

**MORIARTY A.; FIELD M.W. (1990)**

'Proactive Intervention: A New Approach To Police EAP Programs.'

*PUBLIC PERSONNEL MANAGEMENT* Vol 19(2) pp 155-161.

**MORSE J.J. (1975)**

'Person-Job Congruence And Individual Adjustment And Development.'

*HUMAN RELATIONS* Vol 28 pp 841-861.

**MOSCARELLO R. (1991)**

'Posttraumatic Stress Disorder After Sexual Assault: Its Psychodynamics And Treatment.'

*JOURNAL OF THE AMERICAN ACADEMY OF PSYCHOANALYSIS*

Vol 19(2) pp 235-253.

**MOSES R. (1978)**

'Adult Psychic Trauma: The Question Of Early Predisposition And Some Detailed Mechanisms.'

*INTERNATIONAL JOURNAL OF PSYCHOANALYSIS* Vol 59(2) pp 353-363.

**MURPHY L.R. (1985)**

'Individual Coping Strategies.'

In: COOPER C.L.; SMITH M.J. (1985) [Eds.]

'JOB STRESS AND BLUE COLLAR WORK.'

John Wiley and Sons: Chichester.

**MURPHY L.R. (1988)**

'Workplace Intervention For Stress Reduction And Prevention.'

In: COOPER C.L.; PAYNE R. (1988) [Eds.]

'CAUSES, COPING AND CONSEQUENCES OF STRESS AT WORK.'

John Wiley and Sons: Chichester.

**MURRAY H.A. (1959)**

'Preparations For The Scaffold Of A Comprehensive System.'  
In: KOCH S. [Ed.]

'PSYCHOLOGY: A STUDY OF A SCIENCE: FORMULATIONS OF THE PERSON AND THE  
SOCIAL CONTEXT.' Volume III  
McGraw-Hill: New York.

**MUSAPH H. (1990)**

'Anniversary Reaction As A Symptom Of Grief In Traumatized Persons.'  
ISRAEL JOURNAL OF PSYCHIATRY AND RELATED SCIENCES  
Vol 27(3) pp 175-179.

**NADLER A.; MAYSELESS O. (1983)**

'Recipient Self-Esteem And Reactions To Help.'  
In: FISHER J.D.; NADLER A.; DEPAULO B.M. (1983) [Eds.]  
'NEW DIRECTIONS IN HELPING.' Volume I  
Academic Press: London.

**NAGY S.; NIX C.L. (1989)**

'Relations Between Preventative Health Behaviour And Hardiness.'  
PSYCHOLOGICAL REPORTS Vol 65 pp 339-345.

**NAKANO K. (1989)**

'Intervening Variables Of Stress Hassles And Health.'  
JAPANESE PSYCHOLOGICAL RESEARCH Vol 31(3) pp 143-148.

**NEAL L.A.; BUSUTTIL W.; ROLLINS J.; HEREPATH R.; STRIKE P.;  
TURNBULL G. (1994)**

'Convergent Validity Of Measures Of Post-Traumatic Stress Disorder In  
A Mixed Military And Civilian Population.' JOURNAL OF TRAUMATIC STRESS  
Vol No 7 pp 447-455.

**NEHRKE M.F.; TURNER R.R.; COHEN S.H.; WHITBOURNE S.K.; MORGANTI J.B.;  
HULICKA I.M. (1981)**

'Towards A Model Of Person-Environment Development Of EPPIS.'  
EXPERIMENTAL AGEING RESEARCH Vol 7(4) pp 363-379.

**NELSON-LE GALL S.; GUMERMAN R.A.; SCOTT-JONES D. (1983)**

'Instrumental Help-Seeking And Everyday Problem-Solving: A Developmental  
Process.'  
In: DEPAULO B.M.; NADLER A.; FISHER J.D. (1983) [Eds.]  
'NEW DIRECTIONS IN HELPING.' Volume II  
Academic Press: London.

**NELSON L.D.; STERN S.L.; CICCHETTI D.V. (1992)**

'The Dysfunctional Attitude Scale: How Well Can It Measure Depressive  
Thinking?'  
JOURNAL OF PSYCHOPATHOLOGY AND BEHAVIORAL ASSESSMENT  
Vol 14(3) pp 217-223.

**NEWMAN J.E.; BEEHR T.A. (1979)**

'Personal And Organisational Strategies For Handling Job Stress: A Review  
Of Research And Opinion.'  
PERSONNEL PSYCHOLOGY Vol 32(1) pp 1-43.



**NEWMAN J. (1987)**

'Differential Diagnosis In Post-Traumatic Stress Disorder: Implications For Treatment.'

In: Williams T. (1987) [Ed.]

'POST TRAUMATIC STRESS DISORDERS: A HANDBOOK FOR CLINICIANS.'  
Disabled American Veterans: Cincinnati, Ohio.

**NEWTON R. (1989)**

'A Study And Literature Review Of Unexpected Reactions.'

HOME OFFICE: Police Requirements Support Unit.

**NIXON P.G.F. (1984)**

'Stress, Life Style And Cardiovascular Disease: A Cardiological Odyssey.'  
BRITISH JOURNAL OF HOLISTIC MEDICINE Vol 1(1) pp 20-29.

**NIXON P.G.F. (1986)**

'Exhaustion: Cardiac Rehabilitation's Starting Point.'

In: MAES S.; SPIELBERGER C.D.; DEFARES P.B.;  
SARASON I.G. (1986) [Eds.]

'TOPICS IN HEALTH PSYCHOLOGY.'

John Wiley And Sons: Chichester.

**NIXON P.G.F. (1993a)**

'The Broken Heart - Counteraction By SABRES.'

JOURNAL OF THE ROYAL SOCIETY OF MEDICINE

Vol 86 pp 468-471.

**NIXON P.G.F. (1993b)**

'The Grey Area Of Effort Syndrome And Hyperventilation: From Thomas Lewis to Today.'

JOURNAL OF ROYAL COLLEGE OF PHYSICIANS OF LONDON

Vol 27(4) pp 377-383.

**NIXON P.G.F. (1994a)**

'Effort Syndrome: Hyperventilation And Reduction Of Anaerobic Threshold.'

BIOFEEDBACK AND SELF-REGULATION Vol 19(2) pp 155-169.

**NIXON P.G.F. (1994b)**

'Breathing: Physiological Reasons For Loss Of Self-Control.'

In: CARLSON J.G.; SEIFERT A.R.; BIRBAUMER N. (1994) [Eds.]

'CLINICAL APPLIED PSYCHOPHYSIOLOGY.'

Plenum Press: London.

**NORD J.L.; LITTRELL J.M. (1989)**

'Predictors Of Supervisors' Referrals Of Employees To An Employee Assistance Programme.'

EMPLOYEE ASSISTANCE QUARTERLY Vol 5(2) pp 21-40.

**NORMAND J.; SALYARDS S.; MAHONEY J.J. (1990)**

'An Evaluation Of Preemployment Drug Testing.'

JOURNAL OF APPLIED PSYCHOLOGY Vol 75(6) pp 629-639.

**NORRIS F.H. (1990)**

'Screening For Traumatic Stress: A Scale For Use In The General Population.'

JOURNAL OF APPLIED SOCIAL PSYCHOLOGY Vol 20(20) pp 1704-1718.

**NORRIS F.H. (1992)**

'Epidemiology Of Trauma: Frequency And Impact Of Different Potentially Traumatic Events On Demographic Groups.'  
*JOURNAL OF CONSULTING AND CLINICAL PSYCHOLOGY*  
Vol 60(3) pp 409-418.

**NOWACK K.M. (1986)**

'Type A, Hardiness, And Psychological Distress.'  
*JOURNAL OF BEHAVIORAL MEDICINE* Vol 9(6) pp 537-548.

**NOWACK K.M. (1989)**

'Coping Style, Cognitive Hardiness And Health Status.'  
*JOURNAL OF BEHAVIORAL MEDICINE* Vol 12(2) pp 145-158.

**NOWACK K.M. (1990)**

'Initial Development Of An Inventory To Assess Stress And Health Risk.'  
*AMERICAN JOURNAL OF HEALTH PROMOTION* Vol 4(3) pp 173-180.

**NOWACK K.M. (1991)**

'Psychosocial Predictors Of Health Status.'  
*WORK AND STRESS* Vol 5(2) pp 117-131.

**O'DONOHUE W.; ELLIOTT A. (1992)**

'The Current Status Of Post-Traumatic Stress Disorder As A Diagnostic Category: Problems And Proposals.'  
*JOURNAL OF TRAUMATIC STRESS* Vol 5(3) pp 421-439.

**O'LEARY K.M.; COWDREY R.W.; GARDNER D.L.; LEIBENLUFT E.;  
LUCAS P.B.; DE JONG-MEYER R. (1991)**

'Dysfunctional Attitudes In Borderline Personality Disorder.'  
*JOURNAL OF PERSONALITY DISORDERS* Vol 5(3) pp 233-242.

**OSTELL A. (1991)**

'Coping, Problem Solving And Stress: A Framework For Intervention Strategies.'  
*BRITISH JOURNAL OF MEDICAL PSYCHOLOGY* Vol 64 pp 11-21.

**OVERALL J.E.; GORHAM D.R. (1962)**

'The Brief Psychiatric Rating Scale.'  
*PSYCHOLOGICAL REPORTS* Vol 10 pp 799-812.

**PARKES K.R. (1984)**

'Locus Of Control, Cognitive Appraisal, And Coping In Stressful Episodes.'  
*JOURNAL OF PERSONALITY AND SOCIAL PSYCHOLOGY*  
Vol 46 pp 655-668.

**PARKES K.R. (1988)**

'The Hardy Personality And Its Relationship To Extraversion And Neuroticism.'  
*PERSONALITY AND INDIVIDUAL DIFFERENCES* Vol 9(4) pp 785-790.

**PARKES K.R. (1990)**

'Coping, Negative Affectivity, And The Work Environment: Additive And Interactive Predictors Of Mental Health.'  
*JOURNAL OF APPLIED PSYCHOLOGY* Vol 75(4) pp 399-409.

**PATTERSON B.L. (1992)**

'Job Experience And Perceived Job Stress Among Police, Correctional, And Probation/Parole Officers.'

*CRIMINAL JUSTICE AND BEHAVIOUR* Vol 19(3) pp 260-285.

**PAYNE R. (1980)**

'Organisational Stress And Social Support.'

In: COOPER C.L.; PAYNE R. (1980) [Eds.]

**PAYNE R. (1987)**

'Organisations As Psychological Environments.'

In: WARR P.B. (1987) [Ed.]

'PSYCHOLOGY AT WORK.'

THIRD EDITION

Penguin: London.

**PENDLETON M.; STOTLAND E.; SPIERS P.; KIRSCH E. (1989)**

'Stress And Strain Among Police, Firefighters, And Government Workers: A Comparative Analysis.'

*CRIMINAL JUSTICE AND BEHAVIOUR* Vol 16(2) pp 196-210.

**PERRIER D.C.; TONER R. (1984)**

'Police Stress: The Hidden Foe.'

*CANADIAN POLICE COLLEGE JOURNAL* Vol 8(1) pp 15-26.

**PERRY C.J.; HERMAN J.L.; VAN DER KOLK B.A.; HOKE L.A. (1990)**

'Psychotherapy And Psychological Trauma In Borderline Personality Disorder.'

*PSYCHIATRIC ANNALS* Vol 20(1) pp 33-43.

**PERSONS J.B.; MIRANDA J.; PERLOFF J.M. (1991)**

'Relationships Between Depressive Symptoms And Cognitive Vulnerabilities Of Achievement And Dependency.'

*COGNITIVE THERAPY AND RESEARCH* Vol 15(3) pp 221-235.

**PETERS-BEAN K.M. (1990a)**

'The De-Mystification Of Post Traumatic Stress Disorder: For Police And Civil Staff.'

HOME OFFICE: Police Requirements Support Unit

Bulletin No 37 July 1990 pp 40-41.

**PETERS-BEAN K.M. (1990b)**

'Recent Developments In Occupational Health For The Metropolitan Police And Civil Staff.'

PAPER PRESENTED TO THE SECOND EUROPEAN CONFERENCE ON TRAUMATIC STRESS:

Netherlands September 1990.

**PETERS-BEAN K.M. (1993)**

'Managing Stress Problems In The Metropolitan Police Service.'

Master Of Philosophy Dissertation (Unpublished)

Cranfield University: Department Of Applied Psychology.

**PETERS-BEAN K.M. (1995)**

'Industrialised Anxiety: The Impact Of Change.'

*THE METROPOLITAN JOURNAL* Issue 15 October 1995 pp 32-33.

**PETERS-BEAN K.M. (1996)**

`Sequential Traumatization: Repetitive Exposure To Traumatic Incidents.'  
*HOME OFFICE: Police Research Group*  
`Focus On Police Research And Development'  
Number 7 March 1996 pp 44-45.

**PETERSON M. (1974)**

`Guidelines For Psychologists In Police Consultation.'  
*INTERNATIONAL MENTAL HEALTH NEWSLETTER Vol 16(4) pp 5-7.*

**PITMAN R.K.; ORR S.P.; VAN DER KOLK B.A.; GREENBERG M.S.; MEYERHOFF J.L.; MOUGEY E.H. (1990)**

`Analgesia: A New Dependent Variable For The Biological Study Of Posttraumatic Stress Disorder.'  
In: *WOLF M.E.; MOSNAIM A.D. (1990) [Eds.]*

**POLLOCK S.E. (1989)**

`The Hardiness Characteristic: A Motivating Factor In Adaption.'  
*ADVANCES IN NURSING RESEARCH Vol 11(2) pp 53-62.*

**POLLOCK S.E.; CHRISTIAN B.J.; SANDS D. (1990)**

`Responses To Chronic Illness: Analysis Of Psychological And Physiological Adaption.'  
*NURSING RESEARCH Vol 39(5) pp 300-304.*

**POST R.M.; BALLENGER J.C. (1984) [Eds.]**

`NEUROBIOLOGY OF MOOD DISORDERS'  
*Williams And Watkins: Baltimore.*

**PROUT M.F.; SCHWARZ R.A. (1991)**

`Post-Traumatic Stress Disorder: A Brief Integrated Approach.'  
*INTERNATIONAL JOURNAL OF SHORT-TERM PSYCHOTHERAPY*  
Vol 6 pp 113-124.

**QUICK J.C.; MURPHY L.R.; HURRELL J.J. (1992) [Eds.]**

`Stress And Well-Being At Work: Assessments And Interventions For Occupational Mental Health.'  
*American Psychological Association: Washington D.C.*

**RADFORD M.H.; MANN L.; KALUCY R.S. (1986)**

`Psychiatric Disturbance And Decision-Making.'  
*AUSTRALIAN AND NEW ZEALAND JOURNAL OF PSYCHIATRY*  
Vol 20(2) pp 210-217.

**REESE J.T. (1987)**

`A History Of Police Psychological Services.'  
*U.S Department Of Justice, Washington: D.C.*

**REESE J.T. (1990)**

`Justification For Mandating Critical Incident Aftercare.'  
In: *REESE J.T.; HORN J.M.; DUNNING C. (1990) [Eds.]*  
`CRITICAL INCIDENTS IN POLICING.'  
*U.S. DEPT. OF JUSTICE.*  
*Federal Bureau of Investigation: Washington D.C.*

**REICHMAN W.; BADEL B.E. (1989)**

`Implementation Of A State Police EAP.'  
*JOURNAL OF DRUG ISSUES Vol 19(3) pp 369-383.*

**RICK J.; GUPPY A. (1994)**

'Coping Strategies And Mental Health In White-Collar Public Sector Employees.'

*EUROPEAN WORK AND ORGANISATIONAL PSYCHOLOGY* Vol 4 pp 121-137.

**RIPPETOE P.A.; ROGERS R.W. (1987)**

'Effects Of Components Of Protection-Motivation Theory On Adaptive And Maladaptive Coping With A Health Threat.'

*JOURNAL OF PERSONALITY AND SOCIAL PSYCHOLOGY*  
Vol 52(3) pp 596-604.

**ROBB H.B.; WARREN R. (1990)**

'Irrational Belief Tests: New Insights; New Directions.'

*JOURNAL OF COGNITIVE PSYCHOTHERAPY: AN INTERNATIONAL QUARTERLY* Vol 4(3)  
pp 303-311.

**ROBINS L.N.; HELZER J.E.; CROUGHAN J.; RATCLIFF K.S. (1981)**

'National Institute Of Mental Health Diagnostic Interview Schedule.'

*ARCHIVES OF GENERAL PSYCHIATRY* Vol 38 pp 381-389.

**ROMAN P.M.; BLUM T.C.; BENNETT N. (1987)**

'Educating Organisational Consumers About Employee Assistance Programmes.'

*PUBLIC PERSONNEL MANAGEMENT* Vol 16(4) pp 299-312.

**ROSEN J.; FIELDS R. (1988)**

'The Long Term Effects Of Extraordinary Trauma: A Look Beyond PTSD.'

*JOURNAL OF ANXIETY DISORDERS* Vol 2(2) pp 179-191.

**ROSEN S. (1983)**

'Perceived Inadequacy And Help-Seeking.'

In: *DEPAULO B.M.; NADLER A.; FISHER J.D. (1983) [Eds.]*

*'NEW DIRECTIONS IN HELPING.'* Volume II

Academic Press: London.

**ROTH D.L.; WIEBE D.J.; FILLINGIM R.B.; SHAY K.A. (1989)**

'Life Events, Fitness, Hardiness, And Health: A Simultaneous Analysis Of Proposed Stress-Resistance Effects.'

*JOURNAL OF PERSONALITY AND SOCIAL PSYCHOLOGY*  
Vol 57(1) pp 136-142.

**ROTTER J.B. (1966)**

'Generalized Expectancies For The Internal Versus External Locus Of Control Of Reinforcement.'

*Psychological Monographs* Vol 80, 1.

**SADRI G.; COOPER C.L. (1990)**

'An Evaluation Of Stress Counselling At Work.'

*PAPER PRESENTED TO THE BRITISH PSYCHOLOGICAL SOCIETY OCCUPATIONAL PSYCHOLOGY CONFERENCE: Windemere January 1990.*

**SANDLER J.; DREHER A.U.; DREWS S. (1991)**

'An Approach To Conceptual Research In Psychoanalysis Illustrated By A Consideration Of Psychic Trauma.'

*INTERNATIONAL REVIEW OF PSYCHOANALYSIS* Vol 18(2) pp 133-141.

**SASS B. (1988)**

'The Centrality Of Work.'  
*WORK AND STRESS* Vol 2(3) pp 255-260.

**SCOTT M.J.; STRADLING S.G. (1994)**

'Post-Traumatic Stress Disorder Without The Trauma.'  
*BRITISH JOURNAL OF CLINICAL PSYCHOLOGY* Vol 33 pp 71-74.

**SELIGMAN M.E.P.; MAIER S.P. (1967)**

'Failure To Escape Traumatic Shock.'  
*JOURNAL OF EXPERIMENTAL PSYCHOLOGY* Vol 74(1) pp 1-9.

**SELIGMAN M.E.P. (1975)**

'ON DEPRESSION, DEVELOPMENT, AND DEATH.'  
Freeman: San Francisco.

**SELYE H. (1956)**

'THE STRESS OF LIFE.'  
McGraw-Hill: New York.

**SELYE H. (1978)**

'The Stress Of Police Work.'  
*POLICE STRESS* Vol 1(1) pp 7-8.

**SEVASTOS P.; SMITH L.; CORDERY J.L. (1992)**

'Evidence On The Reliability And Construct Validity Of Warr's (1990) Well-Being And Mental Health Measures.'  
*JOURNAL OF OCCUPATIONAL PSYCHOLOGY* Vol 65 pp 33-49.

**SCHACHTER S.; SINGER J.E. (1962)**

'Cognitive, Social And Psychological Determinants Of Emotional State.'  
*PSYCHOLOGICAL REVIEW* Vol 69 pp 379-399.

**SCHACHTER S. (1970)**

'FEELINGS AND EMOTIONS: THE LOYOLA SYMPOSIUM.'  
Academic Press: New York.

**SCHIEIER M.F.; CARVER C.S. (1987)**

'Dispositional Optimism And Physical Well-Being: The Influence Of Generalised Outcome Expectancies. Special Issue: Personality And Physical Health.'  
*JOURNAL OF PERSONALITY* Vol 55(2) pp 169-210.

**SCHONPFLUG W. (1986)**

'Behavior Economics As An Approach To Stress Theory.'  
In: *APPLEY M.H.; TRUMBULL R. (1986) [Eds.]*

**SCHORR D.; RODIN J. (1982)**

'The Role Of Perceived Control In Practitioner-Patient Relationships.'  
In: *WILLS T.A. (1982) [Ed.]*  
'BASIC PROCESSES IN HELPING RELATIONSHIPS.'  
Academic Press: London

**SCHWARZ R.A.; PROUT M.F. (1991)**

'Integrative Approaches In The Treatment Of Post-Traumatic Stress Disorder.'  
*PSYCHOTHERAPY* Vol 28(2) pp 364-373.

- SCHWARZWALD J.; SOLOMON Z.; WEISENBERG M.; MIKULINCER M. (1987)**  
 `Validation Of The Impact Of Events Scale For Psychological  
 Sequelae Of Combat.'  
*JOURNAL OF CONSULTING AND CLINICAL PSYCHOLOGY*  
 Vol 55(2) pp 251-256.
- SHAPIRO E.G. (1983)**  
 `Embarrassment And Help-Seeking.'  
 In: *DEPAULO B.M.; NADLER A.; FISHER J.D. (1983) [Eds.]*  
 `NEW DIRECTIONS IN HELPING.' Volume II  
 Academic Press: London.
- SHAW J.B.; FIELDS M.W.; THACKER J.W.; FISHER C.D. (1993)**  
 `The Availability Of Personal And External Coping Resources;  
 Their Impact On Job Stress And Employee Attitudes During  
 Organisational Restructuring.'  
*WORK AND STRESS* Vol 7(3) pp 229-246.
- SHEPPARD J.A.; KASHANI J.H. (1991)**  
 `The Relationship Of Hardiness, Gender, And Stress To Health Outcomes In  
 Adolescents.'  
*JOURNAL OF PERSONALITY* Vol 59(4) pp 747-768.
- SHILONY E.; GROSSMAN F.K. (1993)**  
 `Depersonalisation As A Defense Mechanism In Survivors Of Trauma.'  
*JOURNAL OF TRAUMATIC STRESS* Vol 6(1) pp 119-128.
- SILVA M.N. (1990)**  
 `Police Officers And The Delivery Of Mental Health Services.'  
*PAPER PRESENTED TO THE SECOND EUROPEAN CONFERENCE ON TRAUMATIC STRESS:*  
 Netherlands September 1990.
- SINGER J.E.; DAVIDSON J.E. (1986)**  
 `Specificity And Stress Research.'  
 In: *APPLEY M.H.; TRUMBULL R. (1986) [Eds.]*
- SINGH R. (1985)**  
 `Stress Resistant Executives: The Hardy Personality.'  
*VIKALPA* Vol 10(4) pp 463-465.
- SNYDER M. (1974)**  
 `Self-Monitoring Of Expressive Behaviour.'  
*JOURNAL OF PERSONALITY AND SOCIAL PSYCHOLOGY*  
 Vol 30(4) pp 526-537.
- SNYDER C.R.; INGRAM R.E.; NEWBURG C.L. (1982)**  
 `The Role of Feedback In Help Seeking And The Therapeutic Relationship.'  
 In: *WILLS T.A. [Ed.]*  
 `BASIC PROCESSES IN HELPING RELATIONSHIPS.'  
 Academic Press: London.
- SOLOMON R.M. (1988)**  
 `Mental Conditioning: The Utilization Of Fear.'  
 In: *REESE J.T.; HORN J.M. (1988) [Eds.]*  
 `POLICE PSYCHOLOGY: OPERATIONAL ASSISTANCE.'  
 U.S. DEPT. OF JUSTICE.  
 Federal Bureau of Investigation: Washington D.C.

**SOLOMON Z. (1990)**

'Back To The Front: Recurrent Exposure To Combat Stress And Reactivation Of Posttraumatic Stress Disorder.'

In: WOLF M.E.; MOSNAIM A.D. (1990) [Eds.]

**SPARR L. (1990)**

'Legal Aspects Of Posttraumatic Stress Disorder: Uses And Abuses.'

In: WOLF M.E.; MOSNAIM A.D. (1990) [Eds.]

**SPECTOR P.E.; O'CONNELL B.J. (1994)**

'The Contribution Of Personality Traits, Negative Affectivity, Locus Of Control And Type A To The Subsequent Reports Of Job Stressors And Job Strains.'

JOURNAL OF OCCUPATIONAL AND ORGANISATIONAL PSYCHOLOGY

Vol 67 pp 1-11.

**SPIEGAL D.; CARDENA E. (1990)**

'Dissociative Mechanisms In Posttraumatic Stress Disorder.'

In: WOLF M.E.; MOSNAIM A.D. (1990) [Eds.]

**STEARNS G.M.; MOORE R.J. (1990)**

'Job Burnout In The RCMP: Preliminary Findings From A Saskatchewan Sample.'

JOURNAL OF POLICE SCIENCE AND ADMINISTRATION

Vol 17(3) pp 183-193.

**STRATTON J.G. (1986)**

'Workers Compensation, Disability Retirement And The Police.'

In: REESE J.T.; GOLDSTEIN H.A. (1986) [Eds.]

'PSYCHOLOGICAL SERVICES FOR LAW ENFORCEMENT.'

U.S DEPARTMENT OF JUSTICE.

Federal Bureau of Investigation: Washington D.C.

**STRAUS M.B. (1988) [Ed.]**

'ABUSE AND VICTIMISATION ACROSS THE LIFESPAN.'

John Hopkins University Press: Baltimore.

**SWISHER J. (1977)**

'Testimony To The US Senate Committee On Labour And Public Welfare: Subcommittee On Alcoholism And Drug-Abuse.'

In: SHAIN M.; GROENEVELD J. (1977) [Eds.]

'EMPLOYEE ASSISTANCE PROGRAMMES: PHILOSOPHY, THEORY AND PRACTICE.'

Lexicon Books: Washington D.C.

**TABACHNICK B.G.; FIDELL L.S. (1989)**

'USING MULTIVARIATE STATISTICS'

SECOND EDITION.

Harper Collins: New York.

**TANG T.L.; HAMMONTREE M.L. (1992)**

'The Effects Of Hardiness, Police Stress, And Life Stress On Police Officers' Illness And Absenteeism.'

PUBLIC PERSONNEL MANAGEMENT Vol 21(4) pp 493-510.

**TAPLIN J.R. (1976)**

'Leading Or Limiting: Notes On Standards For Providers.'

PROFESSIONAL PSYCHOLOGY Vol 7(3) pp 377-382.



**TETRICK L.E. (1992)**

'Mediating Effect On Perceived Role Stress: A Confirmatory Analysis.'  
In: *QUICK J.C.; MURPHY L.R.; HURRELL J.J. (1992) [Eds.]*

**TITCHENER J.L. (1986)**

'Posttraumatic Decline: A Consequence Of Unresolved Destructive Drives.'  
In: *FIGLEY C.R. (1986) [Ed.]*  
'TRAUMA AND ITS WAKE.' Volume II  
Brunner/Mazel: New York.

**TRICE H.M.; BELASCO J.A. (1968)**

'Supervisory Training About Alcoholics And Other Problem Employees: A Controlled Evaluation.'  
*QUARTERLY JOURNAL OF STUDIES IN ALCOHOL* Vol 29 pp 382-398.

**TURNER R.J. (1981)**

'Social Support As A Contingency Of Psychological Well-Being.'  
*JOURNAL OF HEALTH AND SOCIAL BEHAVIOUR* Vol 22(4) pp 357-367.

**URSANO R.J.; McCARROLL J.E. (1990)**

'The Nature Of A Traumatic Stressor; Handling Dead Bodies.'  
*JOURNAL OF NERVOUS AND MENTAL DISEASE* Vol 178(6) pp 396-398.

**URSANO R.J.; KAO T.C.; FULLERTON C.S. (1992)**

'Posttraumatic Stress Disorder And Meaning: Structuring Human Chaos.'  
*JOURNAL OF NERVOUS AND MENTAL DISEASE* Vol 180(12) pp 756-759.

**VAN DER KOLK B.A. (1988)**

'Trauma In Men: Effects On Family'.  
In: *STRAUS M.B. (1988) [Ed.]*

**VAN DER KOLK B.A. (1990)**

'The Psychological Processing Of Traumatic Events: The Personal Experience Of Posttraumatic Stress Disorder.'  
In: *REESE J.T.; HORN J.M.; DUNNING C. (1990) [Eds.]*  
'CRITICAL INCIDENTS IN POLICING.'  
U.S. DEPT. OF JUSTICE.  
Federal Bureau of Investigation: Washington D.C.

**VAN DER KOLK B.A.; SAPORTA J. (1991)**

'The Biological Response To Psychic Trauma: Mechanisms And Treatment Of Intrusion And Numbing.'  
*ANXIETY RESEARCH* Vol 4(3) pp 199-212.

**VAN DER KOLK B.A.; SAPORTA J. (1993)**

'Biological Response To Psychic Trauma.'  
In: *WILSON J.P.; RAPHAEL B. (1993) [Eds.]*

**VAN DIJKHUISEN N. (1980)**

'FROM STRESSORS TO STRAINS.'  
Swets & Zeitlinger B.V.-Lisse: Netherlands.

**VAN DIJKHUISEN N. (1981)**

'Towards Organisational Coping With Stress.'  
In: *MARSHALL J.; COOPER C.L. [Eds.]*  
'COPING WITH STRESS AT WORK: CASE STUDIES FROM INDUSTRY.'  
Gower Publishing: London.

**VAN HARRISON R. (1976)**

'Job Demands And Worker Health: Person-Environment Misfit.'  
*Doctoral Dissertation: University of Michigan.*

**VAN HARRISON R. (1978)**

'Person-Environment Fit And Job Stress.'  
In: COOPER C.L.; PAYNE R. (1978) [Eds.]  
'STRESS AT WORK.'  
*John Wiley and Sons: Chichester.*

**VERA WATERS ASSOCIATES. (1990)**

'The Effects Of Stress And The Benefits Of Stress Counselling For Police Officers.'  
*HOME OFFICE: Police Requirements Support Unit.*

**VIOLANTI J.M.; VENA J.E.; MARSHALL J.R. (1986)**

'Disease Risk And Mortality Among Police Officers:  
New Evidence And Contributing Factors.'  
*JOURNAL OF POLICE SCIENCE AND ADMINISTRATION*  
Vol 14(1) pp 17-23.

**VIOLANTI J.M. (1988)**

'Operationalising Police Stress Management: A Model.'  
In: REESE J.T; HORN J.M. (1988) [Eds.]  
'POLICE PSYCHOLOGY: OPERATIONAL ASSISTANCE.'  
U.S. DEPT. OF JUSTICE.  
*Federal Bureau of Investigation: Washington D.C.*

**WALIMA S.E. (1986)**

'Organisational Health In Law Enforcement.'  
In: REESE J.T.; GOLDSTEIN H. (1986) [Eds.]  
'PSYCHOLOGICAL SERVICES FOR LAW ENFORCEMENT.'  
U.S. DEPT. OF JUSTICE.  
*Federal Bureau of Investigation: Washington D.C.*

**WARR P.B.; COOK J.; WALL T. (1979)**

'Scales For The Measurement of Some Work Attitudes And  
Aspects Of Psychological Well-Being.'  
*JOURNAL OF OCCUPATIONAL PSYCHOLOGY* Vol 52 pp 129-148.

**WARR P.B.; WALL T. (1975)**

'WORK AND WELL-BEING.'  
*Penguin: London.*

**WARR P.B. (1978)**

'A Study Of Psychological Well-Being.'  
*BRITISH JOURNAL OF PSYCHOLOGY* Vol 69(1) pp 111-121.

**WARR P.B. (1987a)**

'Job Characteristics And Mental Health.'  
In: WARR. P (1987a) [Ed.]  
'PSYCHOLOGY AT WORK.'  
THIRD EDITION.  
*Penguin: London.*

**WARR P.B. (1987b)**

'WORK, UNEMPLOYMENT AND MENTAL HEALTH.'  
*Clarendon Press: Oxford.*

**WARR P.B. (1990)**

'The Measurement Of Well-Being And Other Aspects Of Mental Health.'  
*JOURNAL OF OCCUPATIONAL PSYCHOLOGY* Vol 3 pp 193-210.

**WARWICK-EVANS L.A. (1983)**

'Psychosomatic Disorders: Theories and Evidence.'  
In: GALE A.; EDWARDS J.A. (1983) [Eds.]  
'PHYSIOLOGICAL CORRELATES OF BEHAVIOUR:  
INDIVIDUAL DIFFERENCES AND PSYCHOPATHOLOGY.'  
Volume III  
Academic Press: London.

**WATSON C.G.; KUCALA T.; JUBA M.P.; MANIFOLD V. (1991)**

'A Factorial Analysis Of The DSM-III Posttraumatic Stress  
Disorder Criteria.'  
*JOURNAL OF CLINICAL PSYCHOLOGY* Vol 47(2) pp 205-214.

**WATSON D.; CLARK L.A. (1984)**

'Negative Affectivity; The Disposition To Experience Aversive  
Emotional States.'  
*PSYCHOLOGICAL BULLETIN* Vol 96(3) pp 465-490.

**WEBB W. (1990)**

'Cognitive Behaviour Therapy: Application For Employee  
Assistance Counsellors.'  
*EMPLOYEE ASSISTANCE QUARTERLY* Vol 5(3) pp 55-65.

**WEISS D.S. (1993)**

'Structured Clinical Interview Techniques.'  
In: WILSON J.P.; RAPHAEL B. (1993) [Eds.]

**WEISSMAN A.N.; BECK A.T. (1978)**

'Development And Validation Of The Dysfunctional Attitude Scale: A  
Preliminary Investigation.'  
Paper Presented At The American Educational Research Association  
Meeting: Toronto, Canada.

**WEISSMAN A.N. (1979)**

'The Dysfunctional Attitude Scale: A Validation Study.' *Dissertation  
Abstracts International* 40, 1389B-1390B (University Microfilms No 79-  
19,533).

**WESTMAN M. (1990)**

'The Relationship Between Stress And Performance:  
The Moderating Effect Of Hardiness.'  
*HUMAN PERFORMANCE* Vol 3(3) pp 141-155.

**WHITE J.W.; LAWRENCE P.S.; BIGGERSTAFF C.; GRUBB T.D. (1985)**

'Factors Of Stress Among Police Officers.'  
*CRIMINAL JUSTICE AND BEHAVIOUR* Vol 12(1) pp 111-128.

**WIEBE D.J. (1991)**

'Hardiness And Stress Moderation: A Test Of Proposed Mechanisms.'  
*JOURNAL OF PERSONALITY AND SOCIAL PSYCHOLOGY*  
Vol 60(1) pp 89-99.

**WILLIAMS D.R. ; HOUSE J.S. (1985)**

'Social Support And Stress Reduction.'  
In: COOPER C.L. ; SMITH M.J. (1985) [Eds.]  
'JOB STRESS AND BLUE COLLAR WORK.'  
John Wiley and Sons: Chichester.

**WILLIAMS M.B. (1992)**

'A Systems View Of Psychological Trauma: Developing Post-Traumatic Stress Response Paradigms.'  
JOURNAL OF CONTEMPORARY PSYCHOTHERAPY Vol 22 (2) pp 89-105.

**WILLIAMS P.G. ; WIEBE D.J. ; SMITH T.W. (1992)**

'Coping Processes As Mediators Of The Relationship Between Hardiness And Health.'  
JOURNAL OF BEHAVIORAL MEDICINE Vol 15(3) pp 237-255.

**WILLIAMS C. (1987)**

'Peacetime Combat: Treating And Preventing Delayed Stress Reactions In Police Officers.'  
In: WILLIAMS T. (1987) [Ed.]  
'POST TRAUMATIC STRESS DISORDERS: A HANDBOOK FOR CLINICIANS.'  
Disabled American Veterans: Cincinnati, Ohio.

**WILLIAMS T. (1987) [Ed.]**

'POST TRAUMATIC STRESS DISORDERS: A HANDBOOK FOR CLINICIANS.'  
Disabled American Veterans: Cincinnati, Ohio.

**WILLIAMS T. (1993)**

'Trauma In The Workplace.'  
In: WILSON J.P. ; RAPHAEL B. (1993) [Eds.]

**WILLS. T.A. (1982)**

'BASIC PROCESSES IN HELPING RELATIONSHIPS.'  
Academic Press: London.

**WILLS T.A. (1983)**

'Social Comparison In Coping And Help-Seeking.'  
In: DEPAULO B.M. ; NADLER A. ; FISHER J.D. (1983) [Eds.]  
'NEW DIRECTIONS IN HELPING.'  
Volume II  
Academic Press: London.

**WILSON J.P. ; RAPHAEL B. (1993) [Eds.]**

'INTERNATIONAL HANDBOOK OF TRAUMATIC STRESS SYNDROMES.'  
Plenum Press: New York.

**WITHAM D.C. ; GLADIS S.D. (1986)**

'The Nature Of Police Authority.'  
FBI LAW ENFORCEMENT BULLETIN Nov 1986 pp 16-20.

**WOLFE J. ; KEANE T.M. (1990)**

'Diagnostic Validity Of Posttraumatic Stress Disorder.'  
In: WOLF M.E. ; MOSNAIM A.D. (1990) [Eds.]

**WOLFE J. ; MOSNAIM A.D. (1990) [Eds.]**

'PTSD: ETIOLOGY, PHENOMENOLOGY AND TREATMENT.'  
American Psychiatric Press: London.

**WOLFE R.A. ; ULRICH D.O. ; PARKER D.F. (1987)**

'Employee Health Management Programmes: Review, Critique, And Research Agenda.'

*JOURNAL OF MANAGEMENT* Vol 13(4) pp 603-615.

**WOOD C. (1987)**

'Buffer Of Hardiness: An Interview With Suzanne C. Oullette Kobasa.'

*ADVANCES* Vol 4(1) pp 37-45.

**WOOD S.D. ; KREITNER R. ; FRIEDMAN G.M. EDWARDS M. ;**

**SOVA M.A. (1982)**

'Cost-Effective Wellness Screening: A Case Study Of 4,524 Law Enforcement Officers.'

*JOURNAL OF POLICE SCIENCE AND ADMINISTRATION*

Vol 10(3) pp 273-278.

**WRICH J.T. (1990)**

'Ethics And EAP Practice: A Practical Application.'

*EMPLOYEE ASSISTANCE QUARTERLY* Vol 5(3) pp 1-11.

**YORKE C. (1986)**

'Reflections On The Problem Of Psychic Trauma.'

*PSYCHOANALYTIC STUDY OF THE CHILD* Vol 41 pp 221-236.

**YOUNG M.B. (1988)**

'Understanding Identity Disruption And Intimacy: One Aspect Of Post-Traumatic Stress Disorder.'

*CONTEMPORARY FAMILY THERAPY: AN INTERNATIONAL JOURNAL*

Vol 10(1) pp 30-43.

**ZEITLIN S.B. ; MCNALLY R.J. (1991)**

'Implicit And Explicit Memory Bias For Threat In Post-Traumatic Stress Disorder.'

*BEHAVIOUR RESEARCH AND THERAPY* Vol 29(5) pp 451-457.

**ZIGMOND A.S. ; SNAITH R.P. (1983)**

'The Hospital Anxiety And Depression Scale.'

*ACTA PSYCHIATRICA SCANDINAVICA* Vol 67 pp 361-370.

**ZUROFF D.C. ; IGREJA I. ; MONGRAIN M. (1990)**

'Dysfunctional Attitudes, Dependency And Self-Criticism As Predictors Of Depressive Mood States: A 12 Month Longitudinal Study.'

*COGNITIVE THERAPY AND RESEARCH* Vol 14(3) pp 315-326.



CRANFIELD UNIVERSITY

COLLEGE OF AERONAUTICS

DEPARTMENT OF APPLIED PSYCHOLOGY

DOCTOR OF PHILOSOPHY THESIS

ACADEMIC YEAR 1993-1996

KYRON M. PETERS-BEAN

'Sequential Traumatism In The Police.'

SUPERVISED BY:-  
PROF. Helen C. MUIR.  
Dr. Andy GUPPY.

January 2000

VOLUME TWO

**BEST COPY**

**AVAILABLE**

Variable print quality



CONTENTS.

PAGES.

VOLUME ONE

**ABSTRACT.**

**ACKNOWLEDGEMENTS.**

**CHAPTER ONE - OVERVIEW.**

1.	AIM OF THE OVERVIEW.	1
1.1.	Research Focus.	
1.1.1.	Chapter Two - Police Stress.	
1.1.2.	Chapter Three - General Stress Theory.	
1.1.3.	Chapter Four - Police Trauma.	
1.1.4.	Chapter Five - Exposure To Trauma.	2
1.1.5.	Chapter Six - Appraisal.	
1.1.6.	Chapter Seven - Coping.	
1.1.7.	Chapter Eight - Gross Stress Outcomes.	
1.2.	RESEARCH OBJECTIVES.	

**CHAPTER TWO - POLICE STRESS.**

2.	GENERAL ASPECTS OF POLICEWORK.	3
2.1.	Emotional Exhaustion And Burnout.	
2.1.1.	Research Interest.	4
2.1.2.	Single Or Multiple Event Stress.	
2.1.3.	Police Stress.	
2.1.4.	Occupationally Specific Stressors.	
2.1.5.	Workload.	5
2.1.6.	Work Expectations.	
2.1.7.	The Police Culture.	
2.1.8.	Gender Differences.	6
2.1.9.	Stress Outcomes For Police.	7
2.1.10.	The Police Career.	8
2.1.11.	Other Stressors.	
2.2.	SUMMARY.	

**CHAPTER THREE - GENERAL STRESS THEORY.**

3.	INTRODUCTION.	10
3.1.	STRESS COSTS.	
3.1.1.	Current Financial Costs.	11
3.1.2.	Causal Aspects.	
3.2.	COMPETING STRESS THEORIES.	12
3.3.	INDIVIDUAL STRESS.	
3.3.1.	Work Performance.	
3.3.2.	Coping With Stress.	13
3.3.3.	Cognitive Appraisal.	
3.3.4.	Coping Strategies.	14
3.4.	PHYSIOLOGICAL STRESS.	15
3.5.	TRANSACTIONAL STRESS.	
3.5.1.	Influences On The Person.	
3.5.2.	Influences From The Environment.	16
3.5.3.	Social Support.	
3.6.	COGNITIVE-EMOTIONAL STRESS.	
3.7.	TYPE A BEHAVIOUR.	17
3.8.	LIFE EVENTS.	



<u>CONTENTS.</u>	<u>PAGES.</u>
3.9. PSYCHOSOCIAL STRESS.	18
3.10. OTHER RESEARCH ISSUES.	
3.11. SUMMARY.	19
 <b>CHAPTER FOUR - POLICE TRAUMA.</b>	
4. POLICE TRAUMA.	21
4.1. The Occupational Context.	22
4.1.1. The Situational Context.	
4.1.2. The Historical Context Of Post Traumatic Stress Disorder.	23
4.1.3. Sequential Trauma.	
4.1.4. Frequency Of Traumata.	25
4.2. SUMMARY.	26
 <b>CHAPTER FIVE - EXPOSURE TO TRAUMA.</b>	
5. EXPOSURE TO THE TRAUMATIC DOMAIN.	27
5.1. Traumatic Stressors.	28
5.2. MODELS OF TRAUMATIC EXPOSURE.	
5.2.1. One Event Models.	
5.2.2. Multiple Event Coping.	29
5.2.3. Traumatic Signatures.	
5.2.4. Kindling Phenomenon.	30
5.2.5. Signature Strength.	31
5.2.6. Dissociation.	32
5.3. SUMMARY.	
 <b>CHAPTER SIX - APPRAISAL.</b>	
6. APPRAISAL OF TRAUMATIC EVENTS.	34
6.1. PTSD (DSM-IIIIR).	
6.1.1. PTSD (DSM-IV).	
6.1.2. `Normal' Responses.	35
6.1.3. Diagnostic Criterion.	36
6.1.4. Specific-Task Trauma.	
6.1.5. Proximity And Magnitude.	37
6.2. APPRAISAL.	
6.2.1. Intrusion And Avoidance.	38
6.2.2. Retrieval Of Trauma Memory.	39
6.2.3. `Hardiness'.	40
6.2.4. `Locus Of Control'.	41
6.2.5. Illusion Of Control.	42
6.2.6. Primary Appraisal Mechanisms.	43
6.2.7. Secondary Appraisal Mechanisms.	44
6.2.8. Dysfunctional Attitudes.	45
6.3. SUMMARY.	47

<u>CONTENTS.</u>	<u>PAGES.</u>
<b>CHAPTER SEVEN - COPING.</b>	
7.	48
7.1.	49
7.1.1.	49
7.1.2.	50
7.1.3.	51
7.1.4.	51
7.1.5.	52
7.1.6.	52
7.2.	53
7.2.1.	53
7.2.2.	54
7.2.3.	55
7.2.4.	55
7.2.5.	56
7.3.	57
<b>CHAPTER EIGHT - GROSS STRESS OUTCOMES.</b>	
8.	58
8.1.	59
8.1.1.	59
8.1.2.	60
8.2.	60
8.2.1.	61
8.3.	61
<b>RESEARCH OBJECTIVES.</b>	
9.	63
10.	63
<b>METHODOLOGY.</b>	
11.	64
<b>STUDY ONE: THE INTERVIEW SURVEY.</b>	
12.	65
12.1.	67
<b>RESULTS FOR STUDY ONE: THE INTERVIEW SURVEY.</b>	
13.	69
13.1.	72
13.1.1.	72
13.1.2.	75
13.1.3.	78
13.1.4.	78

CONTENTS.

PAGES.

**DISCUSSION OF STUDY ONE.**

14.	Qualitative Data.	80
14.1.	Levels Of Trauma Exposure.	
14.1.1.	Coping Strategies For Police And Civil Staff.	81
14.2.	SUMMARY.	82

**METHODOLOGY FOR STUDY TWO: THE METROPOLITAN POLICE SURVEY**

15.	STUDY TWO: THE METROPOLITAN POLICE SURVEY.	84
15.1.	Work Problems.	
15.1.1.	Domestic Problems.	86
15.1.2.	The Impact Of Events Scale.	
15.1.3.	Post Traumatic Stress Disorder.	88
15.1.4.	Cognitive Appraisal.	90
15.1.5.	General Health Questionnaire.	91
15.1.6.	The Cybernetic Coping Scale.	92
15.1.7.	Personal Views About The World.	
15.1.8.	Additional Information.	93
15.1.9.	Biographic Details.	
15.1.10.	Distribution Of Questionnaire.	

**RESULTS FOR STUDY TWO: THE METROPOLITAN POLICE SURVEY.**

16.	THE METROPOLITAN POLICE SURVEY.	97
16.1.	DESCRIPTIVE ANALYSES.	
16.1.1.	Work Problems.	98
16.1.2.	Domestic Problems.	102
16.1.3.	Impact Of Events.	104
16.1.4.	Intrusion And Avoidance.	
16.1.5.	Thresholds Of Intrusion And Avoidance.	105
16.1.6.	Frequency Of Intrusion And Avoidance.	111
16.1.7.	PTSD Variables.	112
16.1.8.	Relationships Between IES And PTSD.	113
16.1.9.	Primary And Secondary Appraisal.	114
16.1.10.	General Mental Well-Being.	117
16.1.11.	Relationships Between The IES, PTSD, GHQ And NAFF Variables.	119
16.1.12.	Cybernetic Coping Scale.	120
16.1.13.	World Assumptions Scale.	122
16.1.14.	Comparisons Of IESTOTAL, INTRUDE, INTEX, AVOID And AVEX Variables Across Frequency Of Traumatic Experience.	123
16.1.15.	Best Practice In Interventions.	126
16.1.16.	Other Information.	128

<u>CONTENTS.</u>	<u>PAGES.</u>	
<b>DISCUSSION OF STUDY TWO.</b>		
17.	Qualitative Data.	
17.1.	Multiple Exposure To Trauma.	129
17.1.1.	The Impact Of Multiple Event Exposure.	
17.1.2.	The Evaluation Of Trauma Signature Theory.	132
18.	SUMMARY.	133
<b>METHODOLOGY FOR STUDY THREE: THE MAIN U.K. FORCES STUDY.</b>		
19.	STUDY THREE: THE MAIN U.K. FORCES STUDY.	134
19.1.	The Main U.K. Questionnaire.	
19.1.1.	The Questionnaire Items.	135
19.1.2.	Distribution Of Main Questionnaires.	137
<b>RESULTS FOR STUDY THREE: THE MAIN U.K. FORCES STUDY.</b>		
20.	MAIN U.K. FORCES SURVEY.	140
20.1.	DESCRIPTIVE ANALYSES.	
20.1.1.	Work Problems.	142
20.1.2.	Domestic Problems.	144
20.1.3.	Impact Of Events.	145
20.1.4.	Intrusion And Avoidance.	146
20.1.5.	Thresholds Of Intrusion And Avoidance.	147
20.1.6.	Frequency Of Intrusion And Avoidance.	151
20.1.7.	Primary And Secondary Appraisal.	152
20.1.8.	General Mental Well-Being.	153
20.1.9.	Cybernetic Coping Scale.	156
20.1.10.	World Assumptions Scale.	157
20.1.11.	Best Practice In Interventions.	158
20.1.12.	Comparisons Of IES, INTRUDE, AVOID, AVEX NAFF and RANDOM Variables Across Frequency Of Traumatic Experience.	159
<b>DISCUSSION OF STUDY THREE.</b>		
21.	Qualitative Data.	163
21.1.	Multiple Exposure To Trauma.	164
21.1.1.	Work Stress Or Work Trauma?	166
22.	SUMMARY.	167
<b>RESULTS FOUR.</b>		
23.	TRAUMA AND OUTCOME RELATIONSHIPS.	168
23.1.	Experience Of Work Stressors, Frequency Of Trauma And The Impact On General Mental Health And Coping.	171
23.1.1.	The METPOL Correlations.	176
23.1.2.	Relationships Between Measures Of Primary And Secondary Appraisal With General Mental Health And Negative Affectivity.	177
23.1.3.	The MAIN U.K. Correlations.	183
23.1.4.	Relationships Between Cybernetic Coping, IES And GHQ.	

<u>CONTENTS .</u>	<u>PAGES .</u>	
23.1.5.	Relationships Between Cybernetic Coping And WAS.	184
23.1.6.	Comparisons Between IES And Other Outcome Measures.	186
24.	MULTIPLE REGRESSION ANALYSES.	
24.1.	MRA Predicting General Mental Health.	187
24.1.1.	MRA Predicting Impact Of Events.	189
24.1.2.	Predictors Of State Mental Health And Trait Mental Health (Or Negative Affectivity).	190
24.1.3.	MRA Predicting Negative Affectivity.	191
25.	THE RESEARCH OBJECTIVES.	193
25.1.	Research Objective #1.	
25.1.1.	Research Objective #2.	194
25.1.2.	Research Objective #3.	195
25.1.3.	Research Objective #4	196
25.1.4.	Research Objective #5.	
26.	DISCUSSION OF RESULTS FOUR.	197
26.1.	Negative Affectivity And Police Work.	
26.1.1.	Multiple Trauma Exposure, Primary Appraisal, And Implications For Coping.	198
26.1.2.	The Usefulness Of Internal World Models And Their Implications For Coping.	201
27.	SUMMARY.	202
 <b>MAIN DISCUSSION.</b>		
28.	DISCUSSION.	203
29.	SECTION ONE: Traumatic Encounters And The Frequency Of Exposure To Trauma.	
29.1.	Impact Of Events And Intrusion And Avoidance.	205
29.1.1.	IES Appraisal And Outcomes.	
30.	SECTION TWO: The Role Of Primary And Secondary Appraisal In Relation To Multiple Exposure To Trauma.	207
30.1.	Primary Appraisal.	
30.1.1.	Secondary Appraisal.	208
30.1.2.	Appraisal Characteristics.	210
31.	SECTION THREE: Coping Characteristics.	212
32.	SECTION FOUR: The Role Of World Assumptions.	213
33.	SECTION FIVE: Negative Affectivity.	215
34.	SECTION SIX: The Empirical Argument For The Existence Of Traumatic Signatures.	216
35.	SUMMARY.	219
36.	RECOMMENDATIONS FOR FURTHER RESEARCH.	220
 <b>BIBLIOGRAPHY .</b>		 222-262

<u>CONTENTS.</u>	<u>VOLUME TWO</u>	<u>PAGES.</u>
<b>APPENDIX "A"</b>		
- INTERVIEW SURVEY QUESTIONS AND RESPONSES.		263-285
<b>APPENDIX "B"</b>		
- SEQUENTIAL TRAUMA QUESTIONNAIRE (METROPOLITAN POLICE VERSION).		286-307
<b>APPENDIX "C"</b>		
- Case Scenarios For IES Referents For Some Police And Civil Staff In The Metropolitan Police Service.		308-337
<b>APPENDIX "D"</b>		
- SEQUENTIAL TRAUMA QUESTIONNAIRE (THE MAIN U.K. FORCES VERSION).		338-357
<b>APPENDIX "E"</b>		
- The SPSSPC+ Command File Used In This Study.		358-363
<b>APPENDIX "F"</b>		
- Showing The Post-Hoc Analyses (TUKEY-HSD Procedure) For The METPOL and MAIN U.K. Data And The Multiple T-Tests For The Combined Data Used In This Study.		364-392

APPENDIX "A"  
SHOWING INTERVIEW SURVEY  
QUESTIONS AND RESPONSES.

"TRAUMA IN THE WORKPLACE"

POLICE PERSONNEL (N = 50) .  
CIVIL SUPPORT STAFF (N = 39) .

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

Compiled by:  
K.M.Peters-Bean  
Inspector  
METROPOLITAN POLICE SERVICE.

DEAR COLLEAGUE ,

This letter is to introduce a study which is concerned with how people in perceived 'high-risk occupations' (such as the Police and Civilian Support Staff) may or may not experience traumatic situations at the workplace, or in the home.

**YOU HAVE BEEN CHOSEN IN A COMPLETELY RANDOM MANNER TO TAKE PART IN THIS SURVEY.**

I am writing to you as someone who will have something valuable to contribute, namely:

(a) You will provide information which will assist in understanding events that cause some people anxiety.

(b) You will help in the development of timely and appropriate methods for dealing with traumatic events at an early stage.

On the following pages is a brief questionnaire which will take about **HALF AN HOUR** to complete. The questions are straightforward and have no hidden meanings. If you think that you can assist please follow the instructions on each page and return the questionnaire as soon as possible to **K.M. PETERS-BEAN** at the end of this interview session.

Thank you for your help and constructive assistance. Whilst individual feedback cannot be given at this stage, at the conclusion of the survey, a summary of results will be available to anyone who requests it.

**PLEASE NOTE:-** This questionnaire asks for responses to questions, some of which are of a sensitive nature. If at any time you feel distressed, because of the nature of the questions, do NOT continue. If you feel that you may like to talk to someone about your feelings or distress, you are recommended to contact your Welfare Branch, or Occupational Health Adviser. Alternatively you might consider contacting your own General Practitioner for advice.

Yours Sincerely,

Kyron M. Peters-Bean  
Inspector  
Metropolitan Police.



GENERAL TRAUMATIC EVENTS.

1. Does the nature of your work expose you to particularly distressing events?

	POLICE (N=50)	CIVIL STAFF (N=39)
YES	35 (70%)	17 (44%)
NO	15 (30%)	22 (56%)

2. If you answered, **NO to question 1.**, then what is it about your work which you find most difficult or demanding? [BRIEFLY]

POLICE RESPONSES.

Changes in work policy.  
 Cot death (colleagues child).  
 Danger.  
 Fatal Accidents - child victims.  
 Firearms situations.  
 High risk factor.  
 Lack of respect for Officer's skills.  
 Lack of variety and flexibility.  
 Medical surgery (recovery process)  
 Overbearing conduct by Senior Officers.  
 Recovery of Deceased victims.  
 Shift work; Unsocial hours.  
 Senior Management decisions.  
 Unnecessary or petty restrictions on work practice.  
 Volume of work and public abuse of emergency telephone system ('999').

CIVIL STAFF RESPONSES.

Abuse by motorists.  
 Abuse by members of the public.  
 Answering telephone calls for others and having to find them.  
 Concentrating on deadlines.  
 Crown Prosecution Service - losing papers and asking questions at very late notice; resubmitting papers.  
 Dealing with people involved in domestic disputes.  
 Dealing with people who have attitude problems or are deliberately difficult.  
 Distressing written reports; case papers; statements from victims.

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

Everyone wanting their work done now.  
Getting on with work colleagues when under pressure at home.  
Having to 'drop everything' when required to do a special job which needs to be done urgently.  
Making tannoy calls; taking messages; tracing Officers etc when they should have let us know where they will be.  
Reading reports on fatal accidents.  
Short time limits on preparing case papers and answering memos.  
Time limits in general.  
Lack of specific authority to complete tasks.  
Lack of support in times of difficulty.  
Lack of training for some tasks.  
Lack of understanding from Management about work problems.  
Laziness on behalf of colleagues; Police Officers.  
Verbal abuse (public; Police Officers and Colleagues).  
Victims of serious assaults; rape; child abuse.  
Victim or Police Officer is killed or injured.  
Work environment design.  
Work left until the last minute.  
Work underload.  
Work overload.

3. If you answered, **YES to question 1.**, then what is it about your work that makes it particularly distressing?  
[BRIEFLY]

**POLICE RESPONSES.**

Aggression and tension.  
Attending potentially dangerous emergency calls.  
Attending disaster scenes.  
Armed robberies - Public or Police shot or stabbed.  
Assaults in domestic circumstances.  
Being made a scapegoat by the public; media; politics etc.  
Change and uncertainty.  
Court proceedings.  
Cynicism.  
Dealing with:  
    Dead bodies (Children).  
    Distressed public and colleagues.  
    Relatives of deceased persons.  
    Victims of serious crime.  
Death of colleague's child in an accident.  
Death of colleagues. Physical violence to self and others.  
Demonstrations.  
Driving.  
Drownings.

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

Expected to be the expert.  
Fear of the unknown.  
Having to cope when the public cannot.  
Hours of working.  
Justifying actions taken.  
Lack of time; resources; manpower.  
Lack of understanding by Management.  
Large public order events which become violent.  
Management decisions.  
Murder of colleagues.  
Not being in a position to effectively assist.  
Perceived as being 'too soft'.  
Serious assaults.  
Situations such as raids; firearms incidents; suspect packages.  
Serious traffic accidents.  
Safety of colleagues.

CIVIL STAFF RESPONSES.

Abuse by drivers and irate motorists.  
Annual leave or time off being withheld because of short staff.  
Answering emergency calls (via '999' system).  
Area Major Investigation Pools (AMIP's).  
Being assaulted.  
Child Protection Team cases involving abuse and care of children.  
Collating cases for court proceedings - reading about distressing incest; kidnapping; murder etc.  
Crime involving persons being shot.  
Disasters.  
Ensuring victims and families get support in crime cases.  
Fear of being injured.  
Helping Divisional Identification Officer identify victims of drowning; suicides etc.  
Hysterical, abusive, emotional and demanding callers using the '999' system.  
Investigating fatal fires and fatal accidents.  
Knowing that you are requesting Officers to deal with incidents which are distressing and upsetting.  
Liaison with victims.  
Listening to the background noise of screaming etc, when a member of the public calls for help.  
Maintaining a high level of expertise.  
Post Mortems'.  
Providing evidence for serious crime; fingerprints; photographs; video recordings which have to be of high quality.

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

Responsibility for bagging up bodies and body parts at the scene of a crime.  
 Scenes of explosion.  
 Seeing photographs of victims of serious crime; death etc.  
 Shiftwork and unsocial hours.  
 Sometimes having to read statements; Forming a picture of the tragic events.  
 Speaking to victims on the phone and reassuring them when cases are dismissed or dropped at Courts.  
 Scepticism by Senior Management.  
 Telephone calls from distraught victims or witnesses.  
 Traffic accident report books containing details of severe personal injury.  
 Suffering and death.

4. How often in your career have you experienced events that have been particularly distressing to you?

	POLICE (N=50)	CIVIL STAFF (N=39)
NONE	5 (10%)	8 (21%)
ONCE OR TWICE	18 (36%)	20 (51%)
MORE THAN THREE	27 (54%)	11 (28%)

5. If you have experienced distressing events **ONCE OR TWICE, OR MORE THAN THREE TIMES** in your career, could you describe some of them below? [BRIEFLY]

INCIDENTS INVOLVING DEATH - POLICE.

Assisting pathologist exhume murdered boy from rough grave.

Death of colleague whilst on duty and working with me.

Finding a lady hanging in her garage.

Finding dead body in rear of a car during a routine stop.

Finding a lady who had slashed her wrists - lying dead at the bottom of stairs.

Fatal accident involving a Police Officer's 7 year old son.

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

Recovering dead body of a child.

Together with relatives finding an elderly lady who had died in front of a full gas fire, her legs were practically cooked, the smell was very intense, she had been there for a couple of weeks.

Trying to save a 12 year old girls life in the street. She had already died of a brain tumour but I tried to resuscitate her. The family were there and said to me that I had killed her by not doing it properly (incident over four years old).

DEATH OR INJURY TO COLLEAGUES - POLICE.

After the Broadwater Farm (riot) I was one of a serial of the Officers who were on night duty covering the estate for the week afterwards. I found that at the end of the week I was not very sociable with friends. That is, I went to a Dinner And Dance on the following Saturday and did not join in much and was rather withdrawn. This lasted just the one night and did not reoccur after further postings to the Estate. I eventually put it down to the extended night duty tours, the depressing nature of the estate and the constant tension that existed because of the riot and the death of Pc Blakelock.

Attending the scene of 2 terrorist Incidents on one day - Hyde Park IRA Bomb involving the Horse Guards and Regents Park IRA Bandstand involving bandsmen, both the same day, one dying in my arms.

Being at the scene of an attempted murder of Colleagues - seeing them in a grievous condition and close to death.

Broadwater Farm Estate (riot) where a colleague I knew was killed. I felt a lot of distress, fear and anger - too much to go into on this page.

Christmas day, during the ambulance dispute. A friend of mine died in a crash in an army ambulance - she was only 22 years old.

I have been involved in two incidents where colleagues close to me were shot and wounded. At these and other incidents I was present when others were shot and killed.

Seeing Mounted Officers being seriously injured during public disorder.

**\*\*\* STRICTLY CONFIDENTIAL \*\*\***

Was injured as a result of a bomb explosion outside Harrods in 1983. Been involved in other bomb incidents before this event - i.e. bomb explosion in Hyde Park and Kensington.

**SERIOUS THREAT OF INJURY - POLICE.**

After engaging a suspect, armed with a rifle, with a number of shots (being fired) the total support from Management since the incident - 2 years ago -has been 'don't forget to take some liquid (alcohol) if you feel under stress' and 'I suppose you better go and see the shrink then.' It was not so much the act of shooting and hitting the suspect, causing injury, but the totally pathetic way in which it was handled from the first instance. The first comment being from a Fed.Rep. (Police Federation Representative) - 'You'll probably be charged with reckless discharge of a firearm and attaching unauthorised equipment to a firearm' - a torch so that I could see the suspect as it was dark.

Being threatened with a madman with a loaded firearm.

Being attacked by a group of white middle aged Travellers outside a pub when on my own - with a radio that did not work properly -and sustaining injury.

Being attacked by and disarming a male armed with a meat cleaver in one hand and a samurai sword in the other - the man was disarmed.

Being threatened by a girl armed with a knife.

Difficult and dangerous unarmed drugs raids - in particular the method of entry (used) was to abseil and enter through a fifth floor window of a 10-storey block of flats.

Riding a horse at a violent football match where the horse became almost uncontrollable due to its own fear.

Whilst serving as an unarmed Beat Duty Constable, I cornered an armed robber who threatened me with a handgun and I was forced to disarm him.

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

RELATIONSHIPS WITH MANAGEMENT/COLLEAGUES - POLICE.

Being threatened by a Senior Officer to remove me from a job which I enjoyed doing and put me at a station a long way from my home. The argument was over something which I knew to be right about and has since become policy in that department. I would have - in his words -been 'walking the street in some shit hole for the rest of my career.'

Being involved in a discipline matter and threatened with a theoretical punishment of dismissal from the Force which took nearly a year to resolve.

Constant changing in the set up of Departments - change for change sake unsettles people.

Losing a prisoner whilst Custody Officer.

One is expected to be caring towards others while being treated abysmally oneself. Perhaps things have changed, but I haven't had to test the job's Welfare Procedures lately.

Wife in hospital having child - asked for Compassionate Leave and a Senior Officer told me, 'If you have no Annual Leave left, you'll have to place your children in care.'

Observing a colleague using unnecessary, in my opinion, violence or words towards a member of the public and then laughing about it afterwards. This has not happened recently and if it did I would speak to that Officer.

INCIDENTS INVOLVING DEATH - CIVIL STAFF.

An incident involving the very brutal hacking to death of a young woman. Her bones were smashed by the force of the blows of the machete, you could smell the blood and feel the terror she must have gone through, and in the end the murderer will probably be walking the streets in less than 10 years - can it be right?

(AUTHOR'S NOTE - Similar incidents have been reported, in the main, by Scenes Of Crime examiners; photographers; fingerprint experts and some pathologists).

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

DEATH OR INJURY TO COLLEAGUES - CIVIL STAFF.

Attending work at Police Station after a major riot - the staff were distressed because they had not heard from their loved ones for several hours and were afraid that they had been injured or worse.

At my old station Four Officers I knew quite well all died. One was a DC (Detective Constable) who was stabbed; two died in a car crash whilst off duty and one committed suicide. It wasn't only distressing for me, but the whole station. It was a very bad time. It was one of the reasons why I left there - morale was very low.

SERIOUS THREAT OF INJURY - CIVIL STAFF.

Colleague having an epileptic fit.  
Dealing with a member of staff who had a miscarriage.  
Death of close relatives.  
Family deaths.  
Illness of close relatives.

I was once held up with a gun as I was patrolling. A man approached me, put a gun to my temple and shouted and swore at me. He also punched me a few times on my head.

Member of public who threw a snooker ball at me, having an FPN (Parking Ticket) torn up and thrown in your face.

Personal injuries.  
Physically assaulted by motorists.  
Threats of assault.

When one of our Officers was shot whilst on an armed operation. It was upsetting knowing how close to home the incident was.

Working in a Police Station which was firebombed - it was distressing to see the damage caused and thoughts of what could have happened if it was during office hours.



RELATIONSHIPS WITH MANAGEMENT/COLLEAGUES - CIVIL STAFF.

Complaint from a person reporting an incident. They would not listen to questions or advice and the whole call was very frustrating. When the phone was put down I swore, which frequently happens after particularly stressful calls. Disciplinary action was taken against me for gross misconduct and I received a warning from a Supervisor. Because we work in a public service our needs and feelings are rarely considered.

Discipline hearing because I was in the right and the Senior Officer did not like that.

OTHER DISTRESS - CIVIL STAFF.

Completing case papers which involved five sisters -the brother had sexually assaulted all of them. As the case was prepared for court I received numerous phone calls from all of the victims and by the time the court case was due, it was dropped by the CPS.

Dealing with irate members of the public who have reported accidents to police - then when 'No Further Action' is taken they get very abusive.

Directing traffic around an injured person in the road.

Instructing a PC to look inside a carrier bag that was believed to contain the body of a child.

I can recall a couple of incidents where Officers have dealt with child fatal accidents. As I am the Clerk for the whole building the Officers can relate to me. I am probably the nearest thing to a Welfare Officer. The Officers have actually been very tearful whilst explaining the accidents. I also listen to a lot of Officers' domestic problems.

Lack of training in CSG (Crime Support Group) meant that I worried about things more than I should have.

Liaising with victims of serious crime - you become very close and almost like friends - due to writing and talking with them.

Office administration during several Murder investigations.

On one occasion I had trouble with staff that I worked with in an office, it got out of hand and eventually I left.

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

Photographing a young boy - 18 months - who had been locked in a room and starved by his parents. I also attended his post mortem and the home address.

Road Traffic Accidents involving death, in particular deaths of young children.

Separation and divorce.

Scenes of crimes; shootings; explosions; disasters.

Speaking to a rape victim and reassuring her that the defendant (her boyfriend) was not going to attack her again - he was known to be carrying a gun.

Talking about and updating Officers via the radio channels when an Officer has been injured or shot.

The Marchioness disaster, 58 dead bodies seen and dealt with in one day. No real support or understanding from Managers. Having to walk past hysterical relatives at the mortuary gates and then we are supposed to gather up our equipment and step back into our lives as if nothing had happened.

Verbal abuse by drivers.

Viewing photographs of someone who had been stabbed to death. Quite distressing at the time - have since learnt not really to look at things like this, as you can drive yourself silly thinking about victims and circumstances surrounding them.

When horses are shot because they are ill or lame. This is awful when you have nursed that horse or it is one that you have looked after.

Working for temperamental Senior Staff - if the work load was great and he was feeling under pressure he would come into my office and burden me with his problems. On one occasion he started crying and stamping his feet like a child who was throwing a tantrum.

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

6. It has been suggested that traumatic events are unique to each person. From the above (Question 5.) could you describe what made the event particularly important to you? [BRIEFLY]

POLICE RESPONSES.

Being with injured Colleagues put job into perspective.

Being treated as a victim in hospital, but as a virtual criminal by Police investigators during a time of shock.

Distress to my family if it happened to me.

Madman had entered Police Station and challenged police to a duel (shoot out) - later attempted suicide with weapon.

Due to a highly emotional situation knowing the injured officer and then dealing with a large number of other officers who attended and making sure the matter was dealt with properly.

Feelings of frustration and helplessness; Feeling of loneliness and inability to summon help.

Helplessness to change events no matter how hard I was trying.

I knew the person very well.

(Man armed with two swords) with only three officers - I found the court case most distressing part when the jury failed to find the man guilty.

Memory of the smell - distress of deceased relative - incident now 10 years old.

More affected by dealing with child victims - something to do with their complete innocence - makes you want to phone home and check the family just to make sure.

Perceptions changed from being young in age and feeling 'bulletproof' and unaware of how fragile life is, to being aware that death is always around the corner.

(Riot scene) It was the first time I faced pure hatred.

The fact that this was not a normal occurrence.

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

The look in an individual's face at the time of death.

The need to keep calm and in control where necessary - knowing that members of the public expect you to be able to deal with any matter however serious - even though the incident at hand is probably the first of its type you have dealt with.

Thoughts of my own children when lifting dead child from rough grave.

The speed at which events changed from normal everyday occurrences to death in a violent manner - it was the first time I had seen violent death first hand occurring to someone I knew.

Thoughts of death and serious injury.

The heartbreak of the relatives and our limited training in dealing with grief; The incidents involved a loss of life for which there were no answers.

The helplessness of the usually innocent victim; The finality of it - alive one second; dead the next.

You are only a 'number' in the service - only close Colleagues and friends really care.

**CIVIL STAFF RESPONSES.**

As a Case Clerk you can become the only contact with the victims - except for the Officer in the case. You let them know everything that is going on with the case.

Because I had read what they had to say about it and almost put myself in their position.

Being the first on the scene - knowing the person was badly injured and that she died later due to the injuries.

Brutality of the murder.  
Child murder.

Could not believe that a grown man could behave in such a way.

Distressing circumstances in which they are killed.

Feeling threatened.

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

First time I had seen anything like this.

Frightening since it was in the same area I live in and was brought up.

Having details of incidents forced at you and which are new to you.

Horrific nature of the events.

I feel that it is particularly important not to make mistakes etc as we are dealing with the prosecution of people.

I felt that I had not intimidated the driver and did not know why he became so aggressive.

I find any event of violence unpleasant, but even more so when it is somebody you know. It is just a bit worrying to think what our society is coming to and even more what the Police Force has to contend with today.

I had never been in such a position before and felt very frightened that it had happened to me.

I knew the Officers who died, very well. I worked in ? Department - and we had a very close contact with all the Officers more or less all of the time.

I still feel uneasy if I ever see the same kind of vehicle although I try to put it to the back of my mind.

I think the river accident was important to me because the majority of the fatalities were in my age group.

I thought at the time, 'What right has anyone to say such things.'

I was concerned for the Officer because he is a popular, friendly Officer who I get on well with. You read and see on television of Officers who are injured in the line of duty which does not affect me. This particular incident affected me because it was close to home.

I was looking after and training a horse which was injured and thought it was getting better then suddenly one day it got a lot worse and the vet could not do any more for it so it had to be shot.

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

It was important to me because the Management and high ranking officers who ran the show, are clueless as to what it is like doing the 'bread and butter' work and have no appreciation of how stressful and demanding this can be. This obviously can adversely effect your work but no allowance is made for this.

Knowing that you have contributed in solving the crime and seeing persons apprehended.

Received no help or guidance from anyone and had to deal with these problems by myself.

Seeing the distress my Civil Colleagues were going through - it could have been their husband (who was killed).

Seeing the effect it had on Police Colleagues - coming off duty on the morning after the riot. The whole office was deeply shocked and upset.

Talking with them a lot I grew to like them and therefore it was upsetting to think that something as horrific as this happened to them.

That I could be blamed for something going wrong and disciplined.

That the Officer was very upset and stressed.

7. It has also been suggested that any or all traumatic incidents have certain key features which make them distressing to an individual. What is it about the events that has caused you most concern? [BRIEFLY]

POLICE RESPONSES.

A degree of inadequacy in cases of serious injury - delay or period of waiting for an ambulance to arrive and take over treatment of injured.

Alarm.

Blood.

Death.

Disfigured bodies.

Fear that it might happen to me.

Frustration; loneliness; helplessness; personal safety.

Horrorific violence.

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

I was concerned for the widow of my dead friend.  
Initial shock of an incident that you have not experienced before.  
Inability to influence or control events.  
Lack of control; feelings of distrust; getting perspective correct.  
Life threatening; the uncertainty of what will happen to you.  
Maggots over the floor; having to walk over them; maggot remains over soles of shoes.  
Not being able to provide answers.  
Pressure that because you wear a Uniform that you are an 'expert'.  
Rapid change from the mundane day-to-day events, to death.  
Realisation that in the past we have not been sufficiently protected due often to apathy on Managements' part.  
The involvement of young children and their suffering.  
Treatment of casualties - whether the treatment was sufficient.  
Trivial bureaucratic problems and paperwork.

CIVIL STAFF RESPONSES.

Acts leading to death or injury of others.  
An end to life in such tragic circumstances.  
Attendance at Post Mortems'.  
Becoming too attached or involved in your work.  
Being powerless.  
Concern for Colleagues health and future career.  
Could I have prevented it from happening?  
Disinterest in my side of the story.  
Distress of victims.  
Empathy for victims.  
Feeling stupid and unable to help.  
Feeling unsafe at work.  
Having to deal with it as part of your job.  
Helplessness.  
How easy these violent events seem to occur.  
Humiliation.  
I might be injured.  
Lack of help from 'official' bodies.  
Might lead to serious illness.  
Not being in control.  
Not knowing what to do.  
That I do not fully understand the reason for things happening.  
That the Officer could not talk to anyone about problems.  
This could happen to me or my family.  
Too close to home. Why?  
Worry about other relations feelings.

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

8. If you have answered any of the above questions, could you please describe how you would normally cope with distressing or stressful events that have happened to you? [BRIEFLY]

GROUPED POLICE RESPONSES.

ALCOHOL:

A few beers after work.  
Social drink and meal with friends or Colleagues.  
Drink with other Personnel.  
(QUANTITY OF DRINK NOT SPECIFIED).

ANNUAL LEAVE:

Having time off Post-Event.  
Formal leave with family.  
Spending some time with family.

BELIEF IN GOD'S PROTECTION:

Religious faith.  
Acknowledging a higher power.

DEBRIEFING:

Informal chats with Colleagues.  
Logically thinking through events.  
Ordering the event.  
Putting event into perspective.  
Formal debriefs.

DISCUSS THE INCIDENT WITH:

Colleagues.  
'Significant Others'.  
Family.  
Friends.

EXERCISE:

Go to the gym.  
Running; boxing; martial arts.  
Walking the dog.  
Play golf with friends.

HOBBIES:

Go Fishing.  
Reading books.  
Relaxing with friends or family.  
Working at some activity, 'manually or mentally'.



\*\*\* STRICTLY CONFIDENTIAL \*\*\*

HUMOUR:

Light hearted banter.  
Practical jokes on Colleagues.  
'Gallows humour'.  
(NOT MALICIOUS).

MAINTAINING DETACHED ATTITUDE:

Switching off.  
Leaving problem at work.  
Not taking things home.  
Get on with it.  
Going home and thinking it through.  
Returning to normal duty as soon as possible.  
Becoming withdrawn.  
Boxing it up and putting it away.  
Removing the cause of the distress.

OTHER COPING STRATEGIES:

Coffee.  
Go home and cry.  
Long hot baths.  
No particular plan.  
Seek counselling from outside agency.  
Sexual contact.  
Smoking.

GROUPED CIVIL STAFF RESPONSES.

ALCOHOL:

Have a drink.  
'Go home and get drunk' solution.

ANNUAL LEAVE:

Make full use of leave to relax.

BELIEF IN GOD'S PROTECTION:

Became a Christian.  
Question God and ask why this had happened.

DEBRIEFING:

NO RESPONSES IN THIS CATEGORY.

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

DISCUSS THE INCIDENT WITH:

Colleagues.  
Everybody.  
Wife and/or family.  
Rant and rave and 'let off steam'.  
Share domestic problems at work and vice versa.  
Anyone around me.  
Close and trusted friends.  
Try to reason with the person concerned.

EXERCISE:

NO RESPONSES IN THIS CATEGORY.

HOBBIES:

NO RESPONSES IN THIS CATEGORY.

HUMOUR:

Don't take the situation so seriously.

MAINTAINING DETACHED ATTITUDE:

Accepting events and living each day as it comes.  
Distance myself from the event.  
Don't take the situation so personally.  
Face problems at the time.  
Focus on work.  
Horrible things are not aimed at you.  
Keep busy.  
Not take it so seriously.  
Passage of time helps in healing.  
Try to block it out.  
Try to forget about it when at home.  
Try to forget workplace problems.  
Try to put it out of my mind altogether.  
Try not to dwell on it too much.  
Work hard to help and support others in similar position.

OTHER COPING STRATEGIES:

Assess situation and remain calm.  
Cope with it.  
Go to a quiet place, alone.  
Go into the back room and count to ten.  
Keep up to date with it.  
Have a good cry when I get home.  
Meditation.  
No particular method.  
Say what I have to and then walk away.  
Stay as calm as possible.  
Tidy my desk and 'clear the decks'. Yoga.

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

THIS QUESTIONNAIRE IS CONCERNED WITH YOUR GENERAL STATE OF HEALTH OVER THE LAST FEW WEEKS. FOR EACH ITEM, PLEASE CIRCLE THE RESPONSE THAT MOST NEARLY APPLIES TO YOU.

---



---

HAVE YOU RECENTLY -

- |  |                    |                     |                        |                      |
|--|--------------------|---------------------|------------------------|----------------------|
| 1. Been able to concentrate on whatever you are doing?   | Better than usual  | Same as usual       | Less than usual        | Much Less than usual |
| 2. Been losing confidence in yourself?                   | Not at all         | No more than usual  | Rather more than usual | Much more than usual |
| 3. Felt that you were playing a useful part in things?   | More so than usual | Same as usual       | Less useful than usual | Much Less useful     |
| 4. Lost much sleep over worry?                           | Not at all         | No more than usual  | Rather more than usual | Much more than usual |
| 5. Felt capable of making decisions about things?        | More so than usual | Same as usual       | Less so than usual     | Much Less capable    |
| 6. Felt constantly under strain?                         | Not at all         | No more than usual  | Rather more than usual | Much more than usual |
| 7. Been able to face up to your problems?                | More so than usual | Same as usual       | Less able than usual   | Much Less able       |
| 8. Felt that you couldn't overcome your difficulties?    | Not at all         | No more than usual  | Rather more than usual | Much more than usual |
| 9. Been able to enjoy your normal day-to-day activities? | More so than usual | Same as usual       | Less so than usual     | Much Less than usual |
| 10. Been feeling unhappy and depressed?                  | Not at all         | No more than usual  | Rather more than usual | Much more than usual |
| 11. Been feeling reasonably happy all things considered? | More so than usual | About same as usual | Less so than usual     | Much less than usual |
| 12. Been thinking of yourself as a worthless person?     | Not at all         | No more than usual  | Rather more than usual | Much more than usual |

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

Here are some questions regarding the way you behave, feel and act. Try to decide which response option represents your usual way of acting or feeling. There are no right or wrong answers: your immediate reaction is what we want. Please check that you have answered all the questions.

---

RESPONSE ALTERNATIVES:

- 1 = Almost never
  - 2 = Quite seldom
  - 3 = Quite often
  - 4 = Almost always
- 

ITEM RESPONSE	CIRCLE CHOICE	LEAVE BLANK
Does your mood go up and down?	1   2   3   4	<input type="checkbox"/>
Do you feel 'just miserable' for no good reason?	1   2   3   4	<input type="checkbox"/>
When you get annoyed do you need someone friendly to talk to?	1   2   3   4	<input type="checkbox"/>
Are you troubled by feelings of guilt?	1   2   3   4	<input type="checkbox"/>
Would you call yourself tense or 'highly strung'?	1   2   3   4	<input type="checkbox"/>
Do you suffer from sleeplessness?	1   2   3   4	<input type="checkbox"/>

2. STATISTICAL DATA.

THE LAST PART OF THIS QUESTIONNAIRE IS TO ELICIT DATA FOR STATISTICAL ANALYSIS ONLY: PLEASE NOTE THAT ALL INFORMATION GIVEN WILL BE TREATED IN THE STRICTEST CONFIDENCE AND WILL NOT BE PASSED TO ANY PERSON OTHER THAN THE RESEARCHER. PLEASE ANSWER ALL QUESTIONS.

SNO [                    ] LEAVE BLANK	
WHAT IS YOUR AGE?	[     ] YEARS [     ] MONTHS
WHAT IS YOUR CURRENT LENGTH OF SERVICE?	[     ] YEARS [     ] MONTHS
WHAT IS YOUR GENDER? (TICK ONE BOX ONLY)	[     ] FEMALE [     ] MALE
WHAT IS YOUR CURRENT DOMESTIC STATUS? (TICK ONE BOX ONLY)	[     ] MARRIED (LIVING WITH SPOUSE)
	[     ] NOT MARRIED (BUT WITH A STEADY RELATIONSHIP)
	[     ] DIVORCED or SEPARATED
	[     ] WIDOWED
	[     ] SINGLE
WHAT IS YOUR CURRENT RANK OR GRADE? (DO NOT USE ABBREVIATIONS)	
WHAT IS YOUR CURRENT POST? (DO NOT USE ABBREVIATIONS)	
HOW LONG HAVE YOU BEEN IN THIS POST?	[     ] YEARS [     ] MONTHS

THANK YOU FOR PROVIDING THE INFORMATION IN THIS IMPORTANT DEVELOPMENTAL QUESTIONNAIRE. THE DATA YOU CONTRIBUTED WILL BE ANALYSED SHORTLY. WHILST INDIVIDUAL FEEDBACK CANNOT BE GIVEN, AT THE CONCLUSION OF THE SURVEY A SHORT SUMMARY OF RESULTS WILL BE MADE AVAILABLE ON REQUEST. PLEASE BE ASSURED THAT THE QUESTIONS ASKED, WHICH ARE OF A SENSITIVE NATURE, WILL NOT BE PASSED TO ANY PERSON OTHER THAN THE RESEARCHER, NOR CAN IT BE ATTRIBUTED TO ANY INDIVIDUAL ONCE IT HAS BEEN RETURNED.

WHEN YOU HAVE FINISHED AND CHECKED THAT ALL THE SECTIONS HAVE BEEN COMPLETED **PLEASE RETURN THIS TO THE RESEARCHER.**

THANK YOU ONCE AGAIN.

APPENDIX "B"  
SHOWING SEQUENTIAL TRAUMA QUESTIONNAIRE  
(METROPOLITAN POLICE VERSION) .

"Trauma In The Workplace"  
MAIN QUESTIONNAIRE.

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

Compiled by:  
K.M.Peters-Bean  
Inspector  
METROPOLITAN POLICE SERVICE.

For further information  
Please contact:-

Kyron M. Peters-Bean  
Cranfield University  
Department Of Applied Psychology  
CRANFIELD, Bedfordshire MK43 OAL  
0234-750111 Extension 5229.

Dear Colleague,

This letter is to introduce a study which is concerned with how people in perceived 'high-risk occupations' (such as the Police and Civilian Support Staff) may or may not experience traumatic situations at the workplace, or in the home.

**YOU HAVE BEEN CHOSEN IN A COMPLETELY RANDOM MANNER TO TAKE PART IN THIS SURVEY.**

I am writing to you as someone who will have something valuable to contribute, namely:

(a) You will provide information which will assist in understanding events that cause some people anxiety.

(b) You will help in the development of timely and appropriate methods for dealing with traumatic events at an early stage.

The questionnaire looks long but will only take about **HALF AN HOUR** to complete. The questions are straightforward and have no hidden meanings.

If you think that you can assist, please follow the instructions on each page and return the questionnaire **WITHIN 5 WORKING DAYS** to Kyron M. Peters-Bean.

**PLEASE USE THE FREEPOST ENVELOPE SUPPLIED - YOU NEED NO STAMP.**

Thank you for your help and constructive assistance. Whilst individual feedback cannot be given - at the conclusion of the survey a summary of results will be available to anyone who requests it.

Please Note:- This questionnaire asks for responses to questions, some of which are of a sensitive nature. If at any time you feel distressed and you might like to talk to someone about your feelings, you are recommended to contact your Welfare Branch, or Occupational Health Adviser. Alternatively you might consider contacting your own General Practitioner for advice.

Yours Sincerely,

Kyron M. Peters-Bean  
Inspector.

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

This is part of a National Study which is sponsored under the Bramshill Fellowship Scheme and the ACPO Joint Committee On Organisational Health And Welfare.

INSTRUCTIONS.

1. Follow the instructions on each page carefully, writing down your responses quickly - it is the first thing that comes to mind that counts.

2. REMEMBER:-

It is YOUR answers that matter.

Please complete this questionnaire alone and preferably in a quiet place.

THERE ARE NO RIGHT OR WRONG ANSWERS AND ANY INFORMATION GIVEN WILL BE TREATED IN THE STRICTEST CONFIDENCE AND WILL NOT BE PASSED TO ANY PERSON OTHER THAN THE RESEARCHER.

THIS IS EXPLICIT THROUGHOUT THE QUESTIONNAIRE.

PLEASE ANSWER ALL THE QUESTIONS.

3. Confidentiality and anonymity is GUARANTEED because:

- (a) The researcher is the only person who will contact you regarding this research.
- (b) Once the questionnaire is returned it is coded onto a computer and the original will be destroyed.
- (c) No information can be attributed to an individual once the questionnaire has been completed and posted using the FREEPOST envelope.
- (d) It may not be possible to send you a REMINDER so I respectfully ask you to complete this questionnaire at the earliest opportunity.

The Information That You Provide  
Will Assist In Helping YOUR Colleagues  
Should They Get Into Difficulty.  
So YOUR Cooperation Is Urgently Sought.

THANK YOU FOR TAKING PART.



1.1. WORK PROBLEMS.

This part of the questionnaire asks how often you encounter potential problems or situations at work. You are asked to look at a number of different items on the list below and think about whether they have applied to you **IN THE RECENT PAST**. Once you have made your choice circle the appropriate number in the box provided.

-----  
RESPONSE ALTERNATIVES:

- 1 = Has not applied
  - 2 = Has hardly ever applied
  - 3 = Has sometimes applied
  - 4 = Has often applied
  - 5 = Has very often applied
- 

IN THE RECENT PAST I HAVE HAD TO DEAL WITH:

	CIRCLE YOUR CHOICE					LEAVE BLANK
Work related matters involving violent persons and/or prisoners	1	2	3	4	5	
Work related matters involving tedious administration/paperwork	1	2	3	4	5	
Work related accidents involving serious injury and/or damage	1	2	3	4	5	
Work related sudden deaths and/or death messages to relatives	1	2	3	4	5	
Work related matters relating to abuse and/or care of children	1	2	3	4	5	
Work related matters relating to domestic violence	1	2	3	4	5	
Work related matters involving public order and/or disorder	1	2	3	4	5	
Work related matters involving Criminal/Civil courts proceedings	1	2	3	4	5	
Work related matters involving chemical and/or physical hazards	1	2	3	4	5	
Work related matters involving hazards such as blood/urine etc.	1	2	3	4	5	

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

1.2. It has been suggested that the specific nature of problems are perceived as being unique to an individual.

Thinking back over **THE RECENT PAST** could you list the FIVE MOST IMPORTANT WORK PROBLEMS which you feel may have had an affect on your work life.

TRY TO WRITE AS MANY AS YOU CAN.

PROBLEMS WHICH MAY HAVE HAD AN AFFECT ON MY WORK LIFE.
1.
2.
3.
4.
5.

1.3. Looking again at the 'Problems At Work' items which you chose. Could you briefly explain why you put down Item No.1 on your list.

--

1.4. Are you still experiencing this problem? [TICK ONE BOX ONLY]

[ ] NO [ ] SOMETIMES [ ] OFTEN

1.5. When did this problem first occur?

[ ] YEARS [ ] MONTHS

2.1. PROBLEMS BEYOND WORK.

This part of the questionnaire asks how often you encounter potential problems or situations at home. You are asked to look at a number of different items on the list below and think about whether they have applied to you **IN THE RECENT PAST**. Once you have made your choice circle the appropriate number in the box provided.

-----  
RESPONSE ALTERNATIVES:

- 1 = Has not applied
  - 2 = Has hardly ever applied
  - 3 = Has sometimes applied
  - 4 = Has often applied
  - 5 = Has very often applied
- 

**IN THE RECENT PAST MY HOME LIFE HAS INVOLVED:**

	CIRCLE YOUR CHOICE	LEAVE BLANK
Periods of general sickness which affected life outside work	1 2 3 4 5	
An injury and/or accident which affected life outside work	1 2 3 4 5	
A housing matter which affected life outside work	1 2 3 4 5	
Alcohol and/or drug misuse which affected life outside work	1 2 3 4 5	
A stress related incident which affected life outside work	1 2 3 4 5	
Demands that work makes on my private/social life outside work	1 2 3 4 5	
Absence of emotional support from others outside work	1 2 3 4 5	
Matters involving my wife/partner which affected life outside work	1 2 3 4 5	
Matters with family/relations which affected life outside work	1 2 3 4 5	
Financial matters which affected life outside work	1 2 3 4 5	



**\*\*\* STRICTLY CONFIDENTIAL \*\*\***

Below are a list of statements which are designed to assess how YOU feel about the particular event that you mentioned above. Please look at the items carefully and circle the appropriate number ON BOTH SCALES that mostly applies to you.

FIRSTLY, CIRCLE EITHER 0,1,2 or 3 FOR **FREQUENCY OF OCCURRENCE** OF THE STATEMENT AND SECONDLY CIRCLE EITHER 0,1,2, or 3 FOR **INTENSITY OF OCCURRENCE** FOR THE SAME STATEMENT.

FREQUENCY OF OCCURRENCE	INTENSITY OF OCCURRENCE
0 = Does not apply	0 = Does not occur
1 = Rarely applies	1 = Mildly occurred
2 = Sometimes applies	2 = Moderately occurred
3 = Often applies	3 = Severely occurred

CIRCLE YOUR CHOICE	
	FREQUENCY
	INTENSITY
I had waves of strong feelings about the event	0 1 2 3   0 1 2 3
Things I saw or heard suddenly reminded me of the event	0 1 2 3   0 1 2 3
I thought about the event when I did not mean to	0 1 2 3   0 1 2 3
Images related to the event popped into my mind	0 1 2 3   0 1 2 3
Any reminder brought back emotions related to the event	0 1 2 3   0 1 2 3
I have difficulty falling asleep because of images or thoughts related to the event	0 1 2 3   0 1 2 3
I had bad dreams related to the event	0 1 2 3   0 1 2 3

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

FIRSTLY, CIRCLE EITHER 0,1,2 or 3 FOR FREQUENCY OF OCCURRENCE OF THE STATEMENT AND SECONDLY CIRCLE EITHER 0,1,2, or 3 FOR INTENSITY OF OCCURRENCE FOR THE SAME STATEMENT.

FREQUENCY OF OCCURRENCE	INTENSITY OF OCCURRENCE
0 = Does not apply	0 = Does not occur
1 = Rarely applies	1 = Mildly occurred
2 = Sometimes applies	2 = Moderately occurred
3 = Often applies	3 = Severely occurred

	CIRCLE YOUR CHOICE							
	FREQUENCY				INTENSITY			
I knew that a lot of unresolved feelings were still there but I kept them under wraps	0	1	2	3	0	1	2	3
I avoided letting myself get emotional when I thought about it or was reminded of the event	0	1	2	3	0	1	2	3
I wished to banish the event from my store of memories	0	1	2	3	0	1	2	3
I made an effort to avoid talking about the event	0	1	2	3	0	1	2	3
I felt unrealistic about the event as if it had not happened or as if it was not real	0	1	2	3	0	1	2	3
I stayed away from things or situations that might remind me of the event	0	1	2	3	0	1	2	3
My emotions related to the event were kind of numb	0	1	2	3	0	1	2	3
I did not let myself have thoughts related to the event	0	1	2	3	0	1	2	3

4.1. THE NATURE OF TRAUMATIC EVENTS.

This part of the questionnaire asks questions about symptoms which, it is suggested, may be specifically related to any or all traumatic events.

YOU are asked to look at the list of different symptoms and think about whether they have personally affected you **IN THE RECENT PAST**. Once you have made your choice circle the appropriate number in the box provided.

-----  
RESPONSE ALTERNATIVES:

- 1 = Not present
- 2 = Very mild
- 3 = Mild
- 4 = Moderate
- 5 = Moderately severe
- 6 = Severe
- 7 = Extremely severe

-----  
IN THE RECENT PAST I HAVE BEEN IN A TRAUMATIC EVENT WHICH INVOLVED:

PERCEIVED SYMPTOMS	CIRCLE YOUR CHOICE
Recurrent and intrusive distress about the event	1 2 3 4 5 6 7
Recurrent distressing dreams about the event	1 2 3 4 5 6 7
Sudden acting or feeling as if the event were recurring	1 2 3 4 5 6 7
Intense distress at events which resemble the original trauma	1 2 3 4 5 6 7
Efforts to avoid thoughts or feelings about the trauma	1 2 3 4 5 6 7
Efforts to avoid activities which recollect the trauma	1 2 3 4 5 6 7
Inability to recall an important aspect of the trauma	1 2 3 4 5 6 7
Diminished interest in significant activities	1 2 3 4 5 6 7
Feelings of detachment or estrangement from others	1 2 3 4 5 6 7
Unable to experience loving feelings toward others	1 2 3 4 5 6 7
Feelings of not having any future	1 2 3 4 5 6 7
Difficulty in staying or falling asleep	1 2 3 4 5 6 7
Irritability or outbursts of anger	1 2 3 4 5 6 7
Difficulty in concentrating for any length of time	1 2 3 4 5 6 7
Feeling as if I was in a constant state of alert	1 2 3 4 5 6 7
Being easily startled by anything	1 2 3 4 5 6 7
Bodily reaction to anything which resembles the trauma	1 2 3 4 5 6 7

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

**5.1. APPRAISAL OF TRAUMATIC EVENTS.**

This part of the questionnaire asks specific questions about how you FIRST PERCEIVED any of the potentially traumatic life events which were mentioned above. YOU will be asked to look at a number of different items on the list below and think about how they have affected you **IN THE RECENT PAST.**

Once you have made your choice circle the appropriate number in the box provided.

-----  
RESPONSE ALTERNATIVES:

- 1 = Not at all
  - 2 = Hardly ever
  - 3 = Sometimes
  - 4 = Often
  - 5 = A great deal
- 

IN THE RECENT PAST A TRAUMATIC LIFE EVENT MADE ME FEEL:

	CIRCLE YOUR CHOICE	LEAVE BLANK
That I would not achieve an important goal	1 2 3 4 5	
That I would lose the respect of someone important to me	1 2 3 4 5	
That I would appear to be incompetent	1 2 3 4 5	
That my self esteem would appear to be threatened	1 2 3 4 5	
That I would appear to feel embarrassed	1 2 3 4 5	
That I would appear to be an unsupportive person	1 2 3 4 5	
That I would appear to be difficult to get along with	1 2 3 4 5	
That I would appear to be in the wrong	1 2 3 4 5	



5.2. APPRAISAL OF TRAUMATIC EVENTS.

This part of the questionnaire asks specific questions about how you would DESCRIBE any of the potentially traumatic life events which were mentioned above. YOU will be asked to look at a number of different items on the list below and think about how they have affected you **IN THE RECENT PAST.**

Again, once YOU have made your choice circle the appropriate number in the box provided.

-----  
RESPONSE ALTERNATIVES:

- 1 = Not at all
  - 2 = Hardly ever
  - 3 = Sometimes
  - 4 = Often
  - 5 = A great deal
- 

IN THE RECENT PAST A TRAUMATIC LIFE EVENT COULD BEST BE DESCRIBED AS:

	CIRCLE YOUR CHOICE	LEAVE
1   One that I could change or do something about	1 2 3 4 5	
2   One that I must accept or that I just got used to	1 2 3 4 5	
3   One where I needed to know more information before I could act	1 2 3 4 5	
4   One where I needed to hold myself back from doing what I wanted	1 2 3 4 5	
5   One where work bureaucracy made it difficult to deal with	1 2 3 4 5	
6   One where, if I dealt with it in the way I wanted, it would have made things difficult for me	1 2 3 4 5	

5.3. Looking again at the above list of items which have been numbered 1 through to 6. Would you write down the item NUMBER which best describes how the incident affected you personally.

My Number Choice Is: [       ]

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

6.1. GENERAL HEALTH MEASURES.

This part of the questionnaire is concerned with your general state of health over the **LAST FEW WEEKS ONLY**. On each item circle the choice that most nearly applies to you.

-----  
 HAVE YOU RECENTLY -

- |  |                    |                     |                        |                      |
|--|--------------------|---------------------|------------------------|----------------------|
| 1. Been able to concentrate on whatever you are doing?   | Better than usual  | Same as usual       | Less than usual        | Much Less than usual |
| 2. Been losing confidence in yourself?                   | Not at all         | No more than usual  | Rather more than usual | Much more than usual |
| 3. Felt that you were playing a useful part in things?   | More so than usual | Same as usual       | Less useful than usual | Much Less useful     |
| 4. Lost much sleep over worry?                           | Not at all         | No more than usual  | Rather more than usual | Much more than usual |
| 5. Felt capable of making decisions about things?        | More so than usual | Same as usual       | Less so than usual     | Much Less capable    |
| 6. Felt constantly under strain?                         | Not at all         | No more than usual  | Rather more than usual | Much more than usual |
| 7. Been able to face up to your problems?                | More so than usual | Same as usual       | Less able than usual   | Much Less able       |
| 8. Felt that you couldn't overcome your difficulties?    | Not at all         | No more than usual  | Rather more than usual | Much more than usual |
| 9. Been able to enjoy your normal day-to-day activities? | More so than usual | Same as usual       | Less so than usual     | Much Less than usual |
| 10. Been feeling unhappy and depressed?                  | Not at all         | No more than usual  | Rather more than usual | Much more than usual |
| 11. Been feeling reasonably happy all things considered? | More so than usual | About same as usual | Less so than usual     | Much less than usual |
| 12. Been thinking of yourself as a worthless person?     | Not at all         | No more than usual  | Rather more than usual | Much more than usual |

**\*\*\* STRICTLY CONFIDENTIAL \*\*\***

Here are some questions regarding the way you behave, feel and act. Try to decide which response option represents your usual way of acting or feeling. There are no right or wrong answers: your immediate reaction is what we want. Please check that you have answered all the questions.

-----  
 RESPONSE ALTERNATIVES:

- 1 = Almost never
  - 2 = Quite seldom
  - 3 = Quite often
  - 4 = Almost always
- 

ITEM RESPONSE	CIRCLE CHOICE	LEAVE BLANK
Does your mood go up and down?	1 2 3 4	
Do you feel 'just miserable' for no good reason?	1 2 3 4	
When you get annoyed do you need someone friendly to talk to?	1 2 3 4	
Are you troubled by feelings of guilt?	1 2 3 4	
Would you call yourself tense or 'highly strung'?	1 2 3 4	
Do you suffer from sleeplessness?	1 2 3 4	

6.2. COPING MEASURES.

People use a variety of different coping techniques to manage the many different situations in which they feel under stress. Listed below are a number of techniques that people have said they use to help them in these stressful situations.

Please respond to each of the following statements in order to describe the way you **GENERALLY** handle stressful situations. Please circle the response alternative of your choice on the scale provided alongside each item.

-----  
RESPONSE ALTERNATIVES:

- 1 = I do not use this technique
  - 2 = I seldom use this technique
  - 3 = I sometimes use this technique
  - 4 = I frequently use this technique
  - 5 = I always use this technique
- 

IN HANDLING STRESSFUL SITUATIONS I WOULD GENERALLY:

ITEM	CIRCLE CHOICE
Try to change the situation to get what I want	1 2 3 4 5
Make an effort to change my expectations	1 2 3 4 5
Try to convince myself that the problem was not very important after all	1 2 3 4 5
Try to keep myself from thinking about the problem	1 2 3 4 5
Try to let off steam	1 2 3 4 5
Talk to someone to find out more about the situation	1 2 3 4 5
Focus my efforts on changing the situation	1 2 3 4 5
Try to convince myself that the way things were, was in fact, acceptable	1 2 3 4 5
Tell myself that the problem was unimportant	1 2 3 4 5
Try to turn my attention away from the problem	1 2 3 4 5
Try to relieve my tension somehow	1 2 3 4 5
Accept sympathy and understanding from someone	1 2 3 4 5

**\*\*\* STRICTLY CONFIDENTIAL \*\*\***

Please respond to each of the following statements in order to describe the way you **GENERALLY** handle stressful situations. Please circle the response alternative of your choice on the scale provided alongside each item.

-----  
 RESPONSE ALTERNATIVES:

- 1 = I do not use this technique
  - 2 = I seldom use this technique
  - 3 = I sometimes use this technique
  - 4 = I frequently use this technique
  - 5 = I always use this technique
- 

**IN HANDLING STRESSFUL SITUATIONS I WOULD GENERALLY:**

ITEM	CIRCLE CHOICE
Work on changing the situation to get what I want	1 2 3 4 5
Try to adjust my expectations to meet the situation	1 2 3 4 5
Tell myself the problem was not so serious after all	1 2 3 4 5
Refuse to think about the problem	1 2 3 4 5
Try to get it off my chest	1 2 3 4 5
Ask a relative or friend I respect, for advice	1 2 3 4 5
Try to fix what was wrong with the situation	1 2 3 4 5
Try to adjust my own standards	1 2 3 4 5
Tell myself the problem was not such a big deal after all	1 2 3 4 5
Try to avoid thinking about the problem	1 2 3 4 5
Try to relax	1 2 3 4 5
Talk to someone about how I was feeling	1 2 3 4 5

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

7.1. PERSONAL VIEWS ABOUT THE WORLD.

It has been suggested that the way in which we form opinions about the world may affect our response to situations that can be potentially traumatic. The following questions have been designed to assess **YOUR** basic understanding or views about the world.

YOU are asked to look at the items below and circle the number which best reflects the view that you hold about the world.

-----  
 RESPONSE ALTERNATIVES:

- 1 = Strongly agree
  - 2 = Agree very much
  - 3 = Agree slightly
  - 4 = Disagree slightly
  - 5 = Disagree very much
  - 6 = Strongly disagree
- 

ITEM	CIRCLE CHOICE					
Misfortune is least likely to strike worthy decent people	1	2	3	4	5	6
People are naturally unfriendly and unkind	1	2	3	4	5	6
Bad events are distributed to people at random	1	2	3	4	5	6
Human nature is basically good	1	2	3	4	5	6
The good things that happen in this world far outnumber the bad	1	2	3	4	5	6
The course of our lives is largely determined by chance	1	2	3	4	5	6
Generally people get what they deserve in this world	1	2	3	4	5	6
I often think I am no good at all	1	2	3	4	5	6
There is more good than evil in the world	1	2	3	4	5	6
I am basically a lucky person	1	2	3	4	5	6
Peoples misfortunes result from the mistakes they have made	1	2	3	4	5	6

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

Again, **YOU** are asked to look at the items below and circle the number which best reflects the view that you hold about the world.

-----  
 RESPONSE ALTERNATIVES:

- 1 = Strongly agree
  - 2 = Agree very much
  - 3 = Agree slightly
  - 4 = Disagree slightly
  - 5 = Disagree very much
  - 6 = Strongly disagree
- 

ITEM	CIRCLE CHOICE					
People don't really care what happens to the next person	1	2	3	4	5	6
I usually behave in ways that are likely to maximise good results	1	2	3	4	5	6
People will experience good fortune if they themselves are good	1	2	3	4	5	6
Life is too full of uncertainties that are determined by chance	1	2	3	4	5	6
When I think about it, I consider myself very lucky	1	2	3	4	5	6
I almost always make an effort to prevent bad things happening to me	1	2	3	4	5	6
I have a low opinion of myself	1	2	3	4	5	6
By and large good people get what they deserve in this world	1	2	3	4	5	6
Through our actions we can prevent bad things from happening to us	1	2	3	4	5	6
Looking at my life I realise that chance events have worked out well	1	2	3	4	5	6
If people took preventative actions most misfortune could be avoided	1	2	3	4	5	6

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

Again, **YOU** are asked to look at the items below and circle the number which best reflects the view that you hold about the world.

-----  
 RESPONSE ALTERNATIVES:

- 1 = Strongly agree
  - 2 = Agree very much
  - 3 = Agree slightly
  - 4 = Disagree slightly
  - 5 = Disagree very much
  - 6 = Strongly disagree
- 

ITEM	CIRCLE CHOICE					
I take the actions necessary to protect myself from misfortune	1	2	3	4	5	6
In general, life is mostly a gamble	1	2	3	4	5	6
The world is a good place	1	2	3	4	5	6
People are basically kind and helpful	1	2	3	4	5	6
I usually behave so as to bring about the greatest good for me	1	2	3	4	5	6
I am very satisfied with the kind of person I am	1	2	3	4	5	6
When bad things happen, it is typically because people have not taken the necessary actions to protect themselves	1	2	3	4	5	6
If you look closely enough you will see that the world is full of goodness	1	2	3	4	5	6
I have reason to be ashamed of my personal character	1	2	3	4	5	6
I am luckier than most people	1	2	3	4	5	6



8.1. FUTURE RESEARCH INTO TRAUMA.

This part of the questionnaire is designed to assess whether YOU have any additional comments to make about the nature of trauma which you mentioned above. Please feel free to write anything that will assist with the future research into this topic.

1. DO YOU HAVE ANY ADDITIONAL COMMENTS TO MAKE?	LEAVE BLANK

If YOU have any observations to make about this questionnaire, please write your comments below. This will assist in the presentation of the research into this topic.

2. DO YOU HAVE ANY ADDITIONAL COMMENTS TO MAKE?	LEAVE BLANK

8.3. BEST PRACTICE SECTION.

Attempts are also being made to develop 'best practise' for dealing with any or all traumatic events at an early stage. Below is a brief checklist of some of the methods which are already being explored.

Could you indicate by ticking the box either 'NO' or 'YES' - if you think these methods would be helpful for you or your colleagues?

METHOD	TICK ONE BOX ONLY	
Clearer information on the causes and effects of stress/anxiety/trauma	<input type="checkbox"/> NO	<input type="checkbox"/> YES
In house counselling for the personal effects of stress/anxiety/trauma	<input type="checkbox"/> NO	<input type="checkbox"/> YES
External counselling for the personal effects of stress/anxiety/trauma	<input type="checkbox"/> NO	<input type="checkbox"/> YES
Clearer supervisory training on the effects of stress/anxiety/trauma	<input type="checkbox"/> NO	<input type="checkbox"/> YES
Clearer individual training on the effects of stress/anxiety/trauma	<input type="checkbox"/> NO	<input type="checkbox"/> YES
In house debriefing on the effects of stress/anxiety/trauma	<input type="checkbox"/> NO	<input type="checkbox"/> YES
External debriefing on the effects of stress/anxiety/trauma	<input type="checkbox"/> NO	<input type="checkbox"/> YES
Self help package on how to deal with stress/anxiety/trauma	<input type="checkbox"/> NO	<input type="checkbox"/> YES
A specific newsletter or journal which provides current information on the effects of stress/anxiety/trauma	<input type="checkbox"/> NO	<input type="checkbox"/> YES
Regular features in local newsletters or journals which provides current information on stress/anxiety/trauma	<input type="checkbox"/> NO	<input type="checkbox"/> YES
OTHER (PLEASE SPECIFY BELOW).....		

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

**9. STATISTICAL DATA.**

The last part of this questionnaire is to elicit data for statistical analysis only. Please note that all information given will be treated in the strictest confidence and will not be passed to any person other than the researcher. Please answer all the questions.

What is your CONSTABULARY?	
What is your AGE?	[    ] YEARS [    ] MONTHS
What is your current LENGTH OF SERVICE?	[    ] YEARS [    ] MONTHS
What is your GENDER?	[    ] FEMALE [    ] MALE
What is your current DOMESTIC STATUS? (Tick ONE BOX only)	[    ] MARRIED (LIVING WITH SPOUSE)
	[    ] NOT MARRIED (BUT WITH A STEADY RELATIONSHIP)
	[    ] DIVORCED or SEPARATED
	[    ] WIDOWED
	[    ] SINGLE
What is your current RANK or GRADE? (Do NOT use abbreviations)	
What is your current POST? (Do NOT use abbreviations)	
HOW LONG HAVE YOU BEEN IN YOUR CURRENT POST?	[    ] YEARS [    ] MONTHS

Thank you for providing the information in this important and developmental questionnaire. The data you have contributed will be very valuable and will be analysed shortly. Whilst individual feedback cannot be given, at the conclusion of the survey a short summary of the results and findings will be made available on request.

**PLEASE BE ASSURED THAT THE QUESTIONS ASKED, WHICH ARE OF A SENSITIVE NATURE, WILL NOT BE PASSED TO ANY PERSON OTHER THAN THE RESEARCHER, NOR CAN IT BE ATTRIBUTED TO ANY INDIVIDUAL ONCE IT HAS BEEN RETURNED.**

When you have FINISHED AND CHECKED that all the sections have been completed Please return this as soon as possible using the FREEPOST ENVELOPE provided - You do NOT need a stamp.

APPENDIX "C"  
SHOWING CASE SCENARIOS  
FOR SOME  
POLICE AND CIVIL STAFF  
OF THE METROPOLITAN POLICE SERVICE.  
(SOME DETAILS CONFIDENTIAL) .

"WORK RELATED PROBLEMS AND THE  
IMPACT OF EVENT REFERENTS"

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

Compiled by:  
K.M.Peters-Bean  
Inspector  
METROPOLITAN POLICE SERVICE.

## Case Scenarios.

---

---

It has been suggested that the specific nature of the hazardous incidents themselves are perceived as being unique to an individual.

Thinking back over THE LAST FEW WEEKS could you list the FIVE MOST IMPORTANT WORK HAZARDS which you feel might have affected your work life.

---

---

KEY: Respondent Number and Work Problem Recounted.  
(BRACKETS) Why the 1st Problem significant.  
(CAPITALS) The IES Referent.  
RESPONDENTS DETAILS WITHHELD.

---

---

- 0001 Annual Appraisal  
(Disagreement with line manager).  
Completing court work before annual leave.  
Covering for colleagues on annual leave.  
EYE OPERATION; DOUBTS ABOUT ITS SUCCESS
- 0002 Lack Of Staff  
(Inappropriate personnel levels to meet response).  
Overlong hours.  
Lack of resources.  
Poor commitment/appreciation of responsibilities.  
Poor management structure.  
CO-ORDINATION OF DISTRESSING HOMICIDE SCENE.
- 0003 Lack Of Support From Line Management  
(Hostility; lack of support in daily activities).  
Lack of appreciation Senior Management.  
Unrealistic tasks and deadlines.  
Management refusal to invest appropriate responsibility.  
Uncertainty - reviews and restructuring of work.  
MULTIPLE FIRE INVESTIGATIONS - DEATHS OF CHILDREN;  
'BULLYING' FROM SENIOR MANAGEMENT.
- 0004 Crown Prosecution Service Attitudes  
(Don't look at paperwork until day before trial - further work required unnecessary and rushed).  
Weight of paperwork.  
Crime Reporting Information System (CRIS; Computer software).  
SUSPENDED FROM DUTY; CHARGED WITH SERIOUS OFFENCE;  
ACQUITTED AT CENTRAL CRIMINAL COURT.

- 0005 Explaining CPS procedures to disgruntled victims  
 (It is something out of my control; 'feeling of  
 having ones hands tied'; responsibility toward  
 victim).  
 Dealing with informants off duty.  
 Severe under manning.  
 Budgetary restraints on Criminal Investigation.  
 Dealing with trivial tasks.  
 NOT BEING ABLE TO SEE MY CHILDREN FOR ABOUT 4  
 WEEKS.
- 0006 Poor leadership at the highest levels  
 (Senior Officers out of touch; make points about  
 things easy to solve but incapable of dealing with  
 broader issues; lack of funding for important  
 demands).  
 Poor working conditions.  
 Lack of decent equipment.  
 Tendency to make Officers 'jack of all trades;  
 masters of none.'  
 Fortunes spent on cosmetic changes, not getting  
 the job done.  
 BEEN INVOLVED IN NUMEROUS EVENTS WHICH WERE  
 TRAUMATIC; TRAINED TO COPE; CANNOT UNDERSTAND  
 NONSENSE ABOUT STRESS; IF POLICE OFFICERS CANNOT  
 COPE THEY SHOULD NOT HAVE JOINED.
- 0007 Dealing with judicial system  
 (Judicial system is just a 'club'; money  
 orientated; not for the service of Justice).  
 Dealing with CPS.  
 Dealing with Local Councils.  
 Unnecessary paperwork.  
 Corrupt Solicitors.  
 XXX RAIL DISASTER; VICTIMS CAUSED ME PROBLEMS;  
 HAD TO GO INTO AUTOMATIC MODE; YOUNGER IN SERVICE  
 GREATLY AFFECTED.
- 0008 ARRESTING AND INTERVIEWING SUSPECT FOR DOUBLE  
 MURDER AND SEXUAL OFFENCES; HAD AN IMPACT BUT  
 NEITHER TRAUMATIC OR STRESSFUL.
- 0009 Constant change within organisation  
 (No stability or direction and priorities keep  
 changing; something in vogue this week is  
 forgotten the next).  
 Lack of support for initiatives.  
 CPS discontinuing cases without apparent reason.  
 Organisational disinterest in individuals; 'if  
 things go wrong you are on your own.'  
 RELATIONSHIP WITH PARTNER; WORRIES THAT I MAY BE  
 INJURED.

- 0010 Recent resignation of two colleagues  
 (Small section of 6; loss of 33% of workforce  
 caused my management indifference has placed high  
 workload on those remaining).  
 Inaction of Senior Management.  
 Management reluctant to take responsibility.  
 RECENT RESIGNATION OF TWO COLLEAGUES BROUGHT ABOUT  
 BY INSENSITIVE AND DICTATORIAL STYLE OF  
 MANAGEMENT; WORK OVERLOAD ON THOSE REMAINING.
- 0011 Stupendous amount of Admin/Special projects  
 (Amount of extra time it takes up; keeps me from my own  
 tasks).  
 Resignation of two important and senior colleagues.  
 Management delegation instead of doing things  
 themselves.  
 SENIOR COLLEAGUES RESIGNED; OFFERED NO CAREER PROSPECTS  
 TO DEVELOP PROFESSIONAL CAREERS; DESPITE PROTEST BY  
 LABORATORY MANAGEMENT; WORK OVERLOAD.
- 0012 Scrutiny of XXX Branch  
 (Indicates large cuts in manpower; uncertainty at  
 continued employment).  
 Losing touch with new legislation.  
 DOMESTIC PROBLEMS WITH WIFE'S POST NATAL ILLNESSES.
- 0013 Financial restrictions on Police Service  
 (Proactive and reactive investigations curtailed; low  
 morale; frustration; decrease in Job satisfaction).  
 Re-structuring of Police Service.  
 Lack of Promotion prospects.  
 Disappointments in recent career development.  
 Inefficient management.  
 SERIOUS ILLNESS OF RELATIVE.
- 0014 Dramatic change within XXX Constabulary  
 (Uncertainty and continuously perceived as underpinning  
 other problems).  
 Decisions about functions of department.  
 Lack of or poor quality equipment.  
 Low morale amongst colleagues within department.  
 REDUCTION OF STAFF WITHIN DEPT; OFFICERS RETURNING TO  
 DISTRICT; WORK OVERLOAD.
- 0015 TRAINING DRIVERS; POTENTIAL DANGER; INCREASE IN  
 ANXIETY; MINDFUL OF STUDENTS ANXIETY.

- 0016 Violence in workplace  
 (Police get less and less protection from Courts).  
 Frustration caused by Management decisions.  
 Risk of contamination from body waste.  
 ATTENDING SCENE OF SUDDEN DEATHS; CAUSES ME TO EVALUATE  
 MY OWN CIRCUMSTANCES; A NEED TO HAVE PEOPLE AROUND YOU  
 IN LATER LIFE.
- 0017 FINDING A MURDER VICTIM THAT HAD BEEN STABBED 300  
 TIMES; FOLLOWING DAY DISARMING YOUNG MOTHER ARMED WITH  
 A KNIFE, TRYING TO SLASH HER WRISTS; ALTHOUGH NEITHER  
 EVENTS CAUSED ME PROBLEMS.
- 0018 Unwarranted re-organisation of the terms and conditions  
 of work (The Chief Constable has decided that CID  
 Officers serve for 5 years, return to Uniform and then  
 re-apply for CID duty).  
 Constant moving of 'goal posts' to achieve political  
 aims.  
 Failure of Service to fully support Personnel.  
 Threat of interference with pay and conditions of work.  
 Lack of leadership and direction.  
 PROBLEMS WITH 16 YEAR OLD STEP-DAUGHTER; LEFT HOME;  
 RESENTS MOTHER RE-MARRYING.
- 0019 Paperwork in preparation for reports and meetings  
 (Too much time devoted to admin matters and attending  
 meetings).  
 Call out during night time.  
 Lack of staff; funding for serious crime  
 investigations.  
 Uncertainty - Force restructuring.  
 No overtime payments.  
 MOVING HOUSE; ANOTHER CHILD BORN INTO FAMILY; SENIOR  
 OFFICERS EMPOWERED TO MAKE CRUCIAL DECISIONS WITHOUT  
 UNDERSTANDING THE SITUATION.
- 0020 Facing a robbery suspect armed with a gun during his  
 arrest  
 (Gun unloaded, caused me to think what could have  
 happened, I could have been shot).  
 Traffic Officer dealing with blood etc.  
 Back problems caused by long periods of sitting in cars  
 on motorways etc.  
 NO EVENT ELICITED.



- 0021 Negativity of staff  
(I have clear goals and feel frustrated when others do not show the same dedication to the way forward).  
Unfair criticism of Police action.  
Bureaucracy.  
Human Resource Deployment.  
Shift work; unsocial hours.  
DEATH OF DAUGHTER; DIVORCE; SERIOUS INCIDENTS AT WORK -  
TERRORISM, PUBLIC ORDER, SERIOUS ASSAULTS ON PUBLIC AND  
COLLEAGUES.
- 0022 Sending PC's to difficult or dangerous situations  
( I take responsibility - recently sent WPC to simple  
call and she was attacked by a 7" flick knife, felt a  
degree of personal responsibility and feel no one above  
my rank really cares for PC's).  
Senior Officers inability to manage properly.  
Management by memo.  
Demands of irrelevant paperwork.  
Work overload with minimal resources.  
MAJOR INCIDENTS DO NOT CAUSE MAJOR PROBLEMS ALTHOUGH  
THIS ONE DID UPSET ME - MOST PROBLEMS CAUSED BY MINOR  
IRRITATIONS WHICH FREQUENTLY RE OCCUR AND ARE NOT  
ADDRESSED OR SOLVED; INCOMPETENT AND INTRANSIGENT  
MANAGEMENT.
- 0023 Fatal accident enquiries  
(most important and present problem)  
Application for another post.  
Senior Officer pressure.  
Custody Office Duty.  
ARMED ROBBERY SHOOTING AT POLICE OFFICERS.
- 0024 Being assaulted  
(On my own and two males assaulted me whilst dealing  
with a traffic matter. Attack sudden and unprovoked and  
has made me wary whilst in houses and dealing with  
young-middle aged males).  
Lack of support from Judicial System.  
Lack of support from Senior Officers.  
Being verbally abused.  
Conflict between colleagues.  
OPERATION XXX AND XXX MARCH - PART OF MOUNTED CORDON  
AND WAS HIT BY A LARGE HAIL OF MISSILES; FOOT DUTY  
DEALING WITH A HEART ATTACK VICTIM AND HIS SON'S  
WEDDING - GIVING RESUSCITATION WHILST BEING WATCHED BY  
FAMILY.

- 0025 Changes by both Home Office and Service.  
 (Officer's have been distracted from work because of internal issues - pay; working conditions; uncertainty has been allowed to develop).  
 Interference from Senior Officers.  
 Lack of clear direction.  
 Lack of stability and continuity.  
 Over ambitious peers using their position to ensure further promotion.  
 INVOLVEMENT IN XXX RAIL DISASTER AS LIAISON TO SEVERAL RELATIVES; SERIOUS ILLNESS TO PARENT; NEAR SERIOUS ILLNESS TO SPOUSE.
- 0026 Excessive paperwork and duplication  
 (99% acting as administrator - 1% making arrests from criminal matters).  
 Inadequate and faulty equipment.  
 Lack of co-operation from CPS.  
 DEATH OF FATHER.
- 0027 Threat of violence  
 (This was a recent experience).  
 Exposure to risk of HIV, Hepatitis.  
 Quantity of paperwork.  
 Lack of resources.  
 Work environment poorly equipped and designed.  
 WENT FOR HIV AND HEPATITIS TEST RECENTLY AS RESULT OF CONTACT WITH CONTAMINATED BLOOD FOLLOWING A BOTTLE FIGHT AT A NIGHT CLUB.
- 0028 Imposition of arbitrary work targets  
 (The need to pressure over worked Officers into greater performance).  
 Internal Politics.  
 FIREARMS INCIDENT WITH POTENTIAL TO CAUSE SERIOUS INJURY; FAILURE OF OPERATING PROCEDURES WHICH WERE REPEATED IN AN IDENTICAL SITUATION 4 DAYS LATER.
- 0029 Lack of support for review of Personnel safety in the workplace by colleagues and management  
 (Convincing colleagues that their own actions can bring about assault; attitude to events; casual disregard for safety).  
 Colleagues deciding who they should work with and altering duties to suit.  
 Too many Probationers.  
 CAD room response times - management interest in statistics and not level of manning.  
 COLLEAGUE MURDERED ON DUTY; SWOPPED SHIFTS WITH HIM; FEELINGS OF GUILT AND BLAME; WOULD MY FAMILY COPE WITHOUT ME.

- 0030 Uncertainty about future of the Service  
(Re-structuring of service, is there a place for my role; talents; no information; no recognition).  
Unsuccessful management.  
No reward or recognition for good work.  
Being used as a political pawn.  
FATAL ACCIDENT OF ELDERLY FEMALE; HUSBAND STOPPED TO LOOK AND HAD TO BE TOLD THAT IT WAS HIS WIFE.
- 0031 Senior Officers who cannot or will not make decisions  
(Stress at work created by inept management; people outside the organisation only create circumstances that need to be catered for).  
Senior Officers who will not support the troops.  
Senior Officers who abdicate responsibility.  
NO EVENT ELICITED.
- 0032 Being sprayed in the eyes with ammonia  
(Incident had real potential danger for serious injury to myself and colleagues; brought home to me and other Officer's that we have little ability to control determined and violent prisoners).  
Constant tiredness from shiftwork.  
BEING SPRAYED IN THE FACE WITH AMMONIA AND THE KNOWLEDGE THAT THE PERSON WILL PROBABLY GET OFF IN COURT.
- 0033 Divorce  
(Main cause of my work problems).  
Multiple victims of bombing.  
Child Murders.  
DIVORCE 9 YEARS AGO; SUFFERED STRESS AFTER DEALING WITH VICTIMS OF XXX BOMBING; CHILD MURDERS AND SUSPICIOUS DEATHS CAUSE SOME STRESS.
- 0034 Unable to keep up with paperwork  
(Support staff have no idea of the time pressures faced by Police; seem to think that we only investigate one crime at a time and do not realise that we are 'abstracted' from normal duties virtually every day).  
Falling behind on crime enquiries due to time pressures.  
Lack of commitment from colleagues.  
HAVE BEEN INVOLVED IN MANY VIOLENT SITUATIONS SUCH AS BEING SHOT AT, BUT HAVE NEVER SUFFERED ANY KIND OF REACTION; 10 MINUTES LATER THE INCIDENT IS FORGOTTEN.

- 0035 Supervising Officers - their manner  
 (The manner and personality of Supervising Officers can have dramatic effects on ones working atmosphere and so giving a relaxed or tense situation).  
 The manner of Inspectors on courses.  
 A SEPARATION FROM A LONG TERM PARTNER.
- 0036 Correspondence and Admin  
 (Unnecessary and time consuming, could be dealt with by people with less experience; repetitive and hardly actioned; no sense of achievement).  
 Public Order.  
 Staff/Personnel matters.  
 Restructuring lack of information.  
 Civil action for false arrest.  
 DEATH OF FATHER; BEING ELECTED HEAD OF FAMILY; HAVING TO DEAL WITH PROBATE ETC.
- 0037 Suspension from duty.  
 (Total alienation; nil contact from friends; job prepared to sacrifice me to appease outsiders).  
 Discipline Board.  
 Head of Branch failure to comprehend issues.  
 DEATH OF WIFE; LEAVING 3 CHILDREN; NO FINANCIAL SUPPORT.
- 0038 Changes in paperwork  
 (Making the real job of policing more difficult due to increased time spent on paperwork instead of working).  
 Changes in procedures.  
 Cutbacks; threat or otherwise.  
 Low morale due to above.  
 SERIOUS ILLNESS OF FAMILY MEMBERS.
- 0039 PC INVOLVED IN A ROAD ACCIDENT OFF DUTY WHICH LEFT HIM PARALYSED; THIS UPSET ME A GREAT DEAL.
- 0040 Dealing with violent people  
 (Something met on a daily basis; not getting any better; law and order, respect for Police thin on the ground).  
 Concern over complaints; are you doing your job right.  
 Lack of leadership by Senior Management.  
 Paperwork; too much time spent on it.  
 Lack of enthusiasm among lower ranking Officers as they feel they do not have the backing of Senior Officer, general public etc.  
 DIVORCE; LEFT WITH TWO CHILDREN; VIOLENCE AT WORK;  
 RECEIVING NOTICE OF INTENDED PROSECUTION FOR ROAD TRAFFIC OFFENCE WHICH I DID NOT COMMIT; DEATH OF FATHER.

- 0041 Too many responsibilities; tasks; no thought about workload  
(Recently been given additional responsibility, no further reward, no discussion or consultation).  
Being expected to be a 'jack of all trades'.  
Time pressure.  
Shift work; Unsocial Hours; Tiredness.  
Change in duties on short notice.  
GRANDMOTHER DIED; VERY CLOSE; LOOKED AFTER ME UNTIL 18;  
MOTHER STILL GRIEVING SEVERELY.
- 0042 Fatal Civilian accidents  
(Loss of life through human error).  
Fatal Police accidents.  
Abuse to children.  
FATAL POLICE ACCIDENT; OFFICER KILLED; PASSENGER BADLY INJURED; TOOK AN HOUR TO FREE THEM; TOOK ME A LONG TIME TO FORGET THE NOISE, SMELL; PERHAPS I NEVER WILL.
- 0043 Subordinates involved in accident; broken bones  
(Someone does their job and may be pensioned off, the family of Officer can then suffer).  
Subordinates behaving like children.  
Supervisors moving the goal posts.  
Supervisors inconsistent selection procedures.  
Divorce/Separation of Subordinates.  
FATHER DIED; WIFE MISCARRIED; SISTER IN LAW DIED OF CANCER; SISTER WITH CANCEROUS GROWTHS; BROTHER WITH CANCER; ANOTHER BROTHER LOST WEIGHT 4 STONE INSTEAD OF 11 STONE.
- 0044 Uncertainty with restructuring  
(Has been going on for two years and we still do not know what the end result will be. Too much rumour control and values being floated which do not accord with reality).  
Retention of rank.  
Will I continue to have a job?  
Difficult relationship with Colleague.  
RESTRUCTURING OF JOB; UNCERTAINTY OF FUTURE.
- 0045 Lack of direction from above  
(Constantly frustrated by the lack of direction in the Service).  
BEEN TO OVER 200 FATAL ACCIDENTS; I SOMETIMES EXPERIENCE RECALL OF THESE SITUATIONS WHICH CAN CAUSE SLEEPLESSNESS.

- 0046 Frequent duty changes at short notice  
(Detrimental effect on social life and work life to due uncertainty).  
Court warnings/appearances at short notice.  
Procedural changes in paperwork.  
Policy changes.  
Uncertainty over future career.  
VIOLENT MENTAL PATIENT ARMED WITH A KNIFE.
- 0047 Lack of goal orientated supervision, no encouragement for good work.  
No backing from judiciary.  
Lack of personal protection.  
Admin errors resulting in lost court cases.  
Poor standards of CPS.  
DEATH OF POLICE SERGEANT MURDERED ON DUTY.
- 0048 Changes in duties; working several weeks without breaks (17 days with only 1 day off; enthusiasm dampened; nearly all the Unit was tired which affects judgement and ability to provide service to the public).  
Poor equipment, or not working properly.  
Lack of common sense by some not all Senior Officers.  
Inability of Senior Officers to accept their mistakes.  
Inability of Senior Officers to listen to the needs of others.  
FEMALE COLLAPSED AND DIED DESPITE ATTEMPTS TO RESUSCITATE HER; ELDERLY AND WAS EXPECTED TO DIE; SENSE OF FAILURE AT NOT BEING ABLE TO REVIVE HER; DISTRESSED AT HOME; FELT DRAINED; HAVE DEALT WITH SIMILAR INCIDENTS BUT THIS AFFECTED ME FOR SOME REASON.
- 0049 Boredom with current job  
(Stuck in an office; pregnant).  
Moaning work colleagues.  
DIVORCE; MOVING HOUSE; PREGNANCY.
- 0050 Poor management  
(Senior Management of Division and Service; no leadership; concerned with next rank and not staff; opportunities for personal development from Insp fewer and fewer).  
Poor accommodation.  
Lack of Information Technology.  
Job culture.  
Inadequate and inappropriate equipment.  
DISCIPLINE PROCEEDINGS; NEED NOT HAVE BEEN SERVED WITH FORM 163.

- 0051 Lack of manpower to tackle problems  
 (Self evident).  
 Too little time to deal with tasks.  
 Refusal of Police to say no to some sections of society.  
 Too much expectation.  
 CHILD MURDER OF 18 MONTH BABY; CRUELTY ON BEHALF OF FATHER; TRIED TO RESUSCITATE WITHOUT SUCCESS; POST MORTEM.
- 0052 Uncertainty about future  
 (Political correctness creates perpetual fear of losing job or rank; no Senior Officer likely to risk position).  
 Political correctness.  
 Incompetent Senior Officers.  
 Disloyal Senior Officers.  
 Sheehy report - threat to pension.  
 LOOKING AFTER MIDDLE AGED COUPLE FOR SEVERAL DAYS; SON INVOLVED IN INCIDENT AND SERIOUS HEAD INJURY; LIFE SUPPORT MACHINE SWITCHED OFF.
- 0053 Threat of transfer from specialist duty  
 (Policy of 5 year transfers being enforced, skills which have been acquired and maintained specific to present job, transfer would necessitate the loss of skills).  
 2 Unsuccessful attempts to transfer.  
 Inability to find reasons for refusal of transfer.  
 DIFFICULT DIVORCE; CUSTODY AND VISITING PROCEEDINGS; THREATENED WITH ACTION OVER CHILD SUPPORT MAINTENANCE; DIFFICULTIES WITH NEW MARRIAGE.
- 0054 Lack of manpower  
 (Too few hours in one day to accomplish work to a high standard; threat to professionalism).  
 Constant dealings with other peoples problems.  
 Lack of understanding by Supervisors.  
 Superfluous paperwork.  
 Constant change in procedures.  
 MURDER ENQUIRY IN WHICH INNOCENT VICTIM WAS KILLED.

- 0055 Not caring any more  
(Constant change within Service and Judiciary have taken the heart from policing; policing the vociferous minority instead of the whole community).  
Repetitive paperwork.  
Unable to make career plans.  
Not knowing where the Service is going.  
Unable to gain promotion.  
THE XXX BOMBING; ANOTHER SENSELESS INCIDENT; LISTEN TO ALL THE DIATRIBE AND KNOW THAT NOTHING WILL BE DONE ABOUT IT.
- 0056 Constant change  
(Service constantly changing the goal posts; in a state of upheaval; no one is certain of their future; morale problems).  
Inconsistency.  
Stress.  
Not being appreciated as a valuable team member.  
Worry about personal health.  
XXX MARCH; TOO FEW POLICE TO CONTROL CROWDS; TENSE AND STRESSFUL SITUATION DUE TO LACK OF MANPOWER.
- 0057 Dealing with a double fatal accident  
(Lot of work to be done in a short time; whilst still having to get on with ordinary duties).  
DOUBLE FATAL ACCIDENT; TRYING TO RESUSCITATE A VICTIM WHO DIED AT SCENE.
- 0058 Workload  
(Responsible for high throughput of quality work; senior officer retiring and placed in charge of work but knows nothing about daily running; leaving me with the work).  
Inter staff problems.  
Too much paperwork.  
Being tired on the job.  
Having to sort out other peoples problems.  
MANY INCIDENTS OF WORK THAT INVOLVES DEATH OF CHILD, THROUGH NATURAL CAUSES OR MURDER; HAVING TO ATTEND THE POST MORTEMS.
- 0059 Home Life  
(Due to break up of home life; strive not to let anything affect work; when things become stable you wonder if it did affect work; under stress not to let it affect work).  
Criticism in the workplace.  
DIVORCE.



- 0060 Threat of market testing  
(Hanging over our heads for 2 years; only recently been told the result; safe this time).  
No sense of direction and low morale.  
Dealing with morbid assignments.  
UNPLEASANT DOUBLE MURDER; ENDING OF A RELATIONSHIP.
- 0061 Completion of course  
(First thing that came into my head).  
Re licence for present job.  
Being assaulted on duty.  
Shift patterns; unsocial hours.  
NO EVENT ELICITED.
- 0062 XXX RIOTS; XXX RIOT; XXX DISPUTE AS A YEAR LONG EVENT;  
FOOTBALL (FOUR SEASONS AS A BRONZE COMMANDER  
RESPONSIBLE FOR PUBLIC ORDER AND SAFETY.
- 0063 Borough Policing  
(Uncertain about why we are doing it, was it necessary, was it worth it).  
Re-organisation.  
Computerisation.  
LEAVING HOME AFTER 8 YEARS AND MOVING IN WITH ANOTHER WOMAN.
- 0064 Drowning of a 9 year old child  
(Have always taken a detailed analytical view of death and injury but this event made me weepy - the trigger was the look of fear on the face of her younger brother).  
Frustration over change and loss of role.  
Uncertainty of future opportunities.  
Death of motorcyclists (2) using my transport.  
Criticism over something that was not my doing.  
NINE YEAR OLD GIRL FISHED FROM THE THAMES.
- 0065 Lack of continuity in running of department - no direction  
(You never know where you stand, one minute you are told you are a specialist, and secure in your job, the next you have been here too long and it is time to go).  
Senior Officers split into opposing factions.  
No career development structure.  
Unsympathetic Senior Officers.  
Pointless duties still carried on for no reason.  
BEREAVEMENT OF CLOSE RELATION.

- 0066 Sudden shift changes  
(Causes instability in adjusting time off to coincide with spouse).  
Imminent changes in status.  
Change of management.  
NO EVENT ELICITED.
- 0067 Armed suspects  
(I feel vulnerable and poorly equipped).  
Insecurity of Force re organisation and the Sheehy report.  
TACKLING A SUSPECT ARMED WITH A REPLICA GUN.
- 0068 Lack of manpower  
(Contributed to many of the other factors. Main factors towards risk of personal injury; frustration at limited opportunities).  
Limited time given to deal with incidents.  
High quality of paperwork.  
Lack of support from Managers.  
Changes in working practices.  
DEALING WITH A COT DEATH ON A CHILD OF A SIMILAR AGE TO MY OWN CHILDREN; DEALING WITH A FATAL ROAD TRAFFIC ACCIDENT ON CHRISTMAS DAY.
- 0069 Dealing with an unreasonable Manager  
(It was an individual personality clash which became very personal and difficult to deal with).  
Coping with a large work load.  
Having to deal with aggressive behaviour at scenes by Police and Fire Brigade etc.  
Meeting family and friends of victims and deceased people.  
Having to ignore sexist behaviour in order to fit in.  
UNEXPECTED DEATH OF CLOSE RELATIVE.
- 0070 Bad working relationship with Colleague  
(Working in close proximity to a Colleague who went out of his way to be awkward and the subsequent frustration when Supervising Officers appeared unconcerned about the problems).  
Poor working conditions - Office facilities.  
MID LIFE CRISIS.

- 0071 Stress re: `scrutiny'  
(There is still a certain amount of uncertainty; the possibility of de selection).  
Transfer to another workplace.  
Having to purchase my own property (Married Quarters withdrawn).  
Keeping up to date by training days etc., due to having to care for XXX.  
Death of mother.  
HAVING TO PURCHASE MARRIED QUARTERS, WHEN IT WAS NOT EXPECTED AND ALL ITS FINANCIAL CONSEQUENCES.
- 0072 Inability to deal with matters due to Legislative practices  
(It gets in the way, every day, with Police work).  
Pre-occupation of the organisation with Management practices rather than doing the job.  
Financial restrictions within the organisation.  
DOUBLE FATAL SHOOTING; UNABLE TO IDENTIFY VICTIM;  
MOTHER'S DISTRESS AT SEARCHING VICTIM'S ROOM FOR CLUES AS TO IDENTITY; I FELT A GREAT PITY FOR THIS WOMAN AS WELL AS GUILT AND A FEELING OF IMPOTENCE IN DEALING WITH HER DISTRESS.
- 0073 Violent prisoners  
(Initial personal safety and safety of Officers; possible complaint of violence that may be readily made by prisoner and or someone else; the possibility of Civil Action following a violent incident).  
Relaying death messages.  
Man Management.  
Management of paperwork.  
DEATH OF COLLEAGUE WHO WAS SHOT DEAD WHILST ON DUTY.
- 0074 Dealing with a small group of Police Officers who indulging in regular breaches of discipline  
(Would not be a problem under the old relief system; being dealt with by Inspectors and Sergeants working together to stop problem before it got out of hand; sector policing - PS does not have an Inspector for guidance; Ps has to live or die by his own decisions).  
Fatal accident reports.  
Trivial paperwork, generated by a paranoid organisation.  
Lack of support from Higher Management.  
FATAL ACCIDENTS; DELIVERING DEATH MESSAGE TO PARENTS OF AN ONLY CHILD.

- 0075 Fatal accidents involving Police Officers  
(This was a specific problem; the rest are more general. If the above is dealt with professionally and competently then the problems of stress can be overcome. The other problems cannot be solved by myself but by others who do not have my interests at heart, nor the interests of the Service, but deal with problems by their own personal prejudices).  
Uncertainty about future work role.  
Frustration that Senior Management do not appreciate my role.  
Feeling that no one cares about the job I am doing.  
Worry that subordinates morale is very low because of above and that I cannot improve it - only sympathise.  
WIFE LEAVING HOME; COPING WITH HOME LIFE AND CONTINUING TO BRING UP CHILDREN WHO LIVE WITH ME.
- 0076 Increased paperwork  
(Sometimes I feel as if I am a clerk, purely employed to do paperwork. There is no solution to this because we are increasingly burdened with forms and procedures).  
People smoking in a non smoking office.  
FAMILY LIAISON OFFICER FOR VICTIM OF A MURDER CASE;  
DISTRESS FELT BY FAMILY - MENTALLY LEANING ON ME; I DID NOT FEEL ADEQUATELY TRAINED TO BE A BEREAVEMENT COUNSELLOR; ALSO FOUND THE CASE SAD AND UPSETTING.
- 0077 Three Sudden death messages and cot death (Sudden Infant Death Syndrome) in one week  
(Extremely stressful and emotionally tiring week culminating in speaking to the parents while they cradled their dead child of 3 months).  
Malicious complaints.  
Risk of violence from a knife attack.  
Welfare problems within the team.  
SEPARATING WITH WIFE FOR THREE MONTHS.
- 0078 Service restructuring  
(Uncertainty; not knowing the likely management structure and decision making process. Feeling currently that decisions are not being made `because we don't know what the new set up will be).  
Sector Policing.  
Working conditions.  
NO EVENT ELICITED.

- 0079 Crime caseload; lack of time  
(I work in an extremely busy XXX office and each individual has a high caseload. The administration and correspondence concerning each case uses too many man hours and mistakes must occur).  
Correspondence.  
Prisoners.  
Mistakes being made.  
Officer bears sole responsibility and is open to discipline procedures.  
DEALING WITH FAMILY OF A MURDER VICTIMS OVER A PERIOD OF 4 MONTHS AS 'FAMILY LIAISON'.
- 0080 Amount of time spent driving  
(Far too much driving before you get down to doing the job).  
NO EVENT ELICITED.
- 0081 Market testing  
(Affected the whole department and caused stress and discomfort).  
Short term changes in postings at last moment.  
Lack of support from Management.  
XXX RIOTS; SHOOTING AT XXX.
- 0082 Being strict with Staff discipline  
(Caused me most stress; there have been times when it has led to disorder in the team, undermined my position and is not conducive with being a 'friend' to your Colleagues).  
Supervising lazy and inefficient Officers.  
Giving evidence.  
Doing all the above and being an investigator.  
Liaising with other departments who do not understand our problems and concerns and yet can dictate to us.  
ATTENDING A POST MORTEM AT A SUSPICIOUS DEATH WHERE THE BODY'S SPINE WAS CUT OUT, HIS HEAD SAWED OPEN AND HIS BRAINS DISPLAYED FOR PHOTOGRAPHING.

- 0083 Working with PACE restrictions; persons in custody for Serious offences; not bailable and trying to secure evidence to charge  
(It is a matter where there is pressure upon Officers in charge of cases; it is likely to recur; any mistakes made are likely to affect the case outcome at court. Not sufficiently well supervising when short staffed and involved in enquiries.  
Being moved from a sought after post after only 7 weeks contrary to written service policy and despite appeal. Being denied any career structure and development despite articulated requests.  
PRINCIPAL CAUSE OF EXTREME FRUSTRATION SINCE 1972 IS NOT BEING SELECTED FOR PARTICULAR POSTING DESPITE QUALIFICATIONS AND SKILLS.
- 0084 Financial problems  
(Always on my mind with regards to things I am trying to buy and would like to buy, always trying to balance the books at the end of each months without getting overdrawn).  
New born baby - now 18 months old.  
Lack of promotion - trying to become a XXX.  
BOUGHT A NEW CAR, OLD CAR TO BE PART EXCHANGED (NOW BEEN INVOLVED IN AN ACCIDENT); TRYING TO SORT OUT REPAIRS AND FINANCES ON MY NEW CAR.
- 0085 Crowd control; policing riots  
(Found myself cut off from other units by a large violent crowd; felt out of control and at mercy of rioters; Still don't like going to situations involving lots of people).  
Road Traffic Accident involving police car.  
Prosecution for offence involved in police accident.  
Poorly managed public order incident above.  
Drawing firearms during and incident.  
DAUGHTER CONTRACTED MENINGITIS; BABIES ON WARD DIED OR WERE DEAF OR BRAIN DAMAGED; WIFE MISCARRIED; SITUATION HAD A GREAT IMPACT UPON ME.
- 0086 Change to new squad at work  
(Spent three years on previous squad, not got used to new working environment; people and work demands; unknown can be upsetting).  
Study for promotion exam this year.  
Move back to C.O. after working elsewhere.  
LONG STANDING DIVORCE PROCEEDINGS; FINANCES AND PROPERTY ISSUES.
- 0087 NO EVENTS ELICITED.

- 0088 Shift work  
(Workplace still uses 4 relief system; problems in sleeping after Night Duty in the Summer and working quick change over).  
Lack of proper motorcyclist equipment.  
Problems with time off and annual leave.  
WHETHER OR NOT SHEEHY REPORT WOULD COME INTO OPERATION;  
PENSION RIGHTS - 60 YEARS; PERFORMANCE RELATED PAY.
- 0089 Being assaulted  
(When patrolling certain areas the experience of the assault returns to me).  
Pressure to succeed.  
Lack of active support.  
DEATH OF MOTHER.
- 0090 Market testing  
(Possible threat to job security; future; lifestyle).  
Lack of Management direction.  
Lack of decision making.  
Unwillingness to adapt to new technology.  
WIFE HAD CANCER REQUIRING IMMEDIATE SURGERY; REOCCURRED  
12 MONTHS LATER.
- 0091 NO EVENTS ELICITED.
- 0092 Accommodation  
(Working conditions as it applies to the unit where I work can only be described as filthy and crowded; strongly criticised by Health and Safety).  
Equipment.  
Work conditions.  
Paperwork overload.  
Crown Prosecution Service.  
COLLEAGUE WOUNDED WHEN SUSPECT FIRED AUTOMATIC WEAPON AT HIM; HE WAS WOUNDED IN THE HEAD AND NARROWLY ESCAPED DEATH.
- 0093 Shiftwork  
(Item affects all the others; shift pattern causes tiredness; the necessity to do overtime to cover for absent colleagues; policy and type of protection that we have to cover).  
Tiredness.  
Unavoidable overtime.  
Quick change overs.  
Policies interfering with type of duties.  
DEATH OF MOTHER IN LAW; MORTAR BOMB ATTACK; CAR BOMB;  
YOUNGEST CHILD INTERSECTION OF THE BOWEL OPERATION AT 8 MONTHS OLD (THIS YEAR).
- 0094 NO EVENTS ELICITED.

0095 XXX Boat Sinking

(Sheer scale of incident spending 3 full days into the evening at the mortuary photographing dead bodies; no support was really forthcoming; except, 'are you ok?'; requested to be excused from PM's for a while; lasted 3 weeks before asked to do another).

Numerous; PM's; Murders; Child and Adult Injuries; abuse etc.

Intrusion of so much overtime on home life.

INCIDENTS INVOLVING INJURY AND DEATH TO CHILDREN;  
POINTLESS CRIMES; VICIOUS MURDERS OR RITUALISTIC  
INJURIES; WASTE OF TIME JOBS WHERE VICTIM HAS NO  
INTENTION OF FOLLOWING THROUGH, OR CRIME IS FICTITIOUS;  
NIGHT DUTY CALLS IN CONJUNCTION WITH DAY DUTY; ONE OF  
MY CATS HAVING TO BE DESTROYED AND OTHERS BEING SICK  
FOR 2 MONTHS.

0096 Tedious work

(Work of a repetitive nature; involves large amount of paperwork which is seen first thing in the morning; very distressing; if the system was computerised it would save time).

Lack of knowledge about current practices.

Seeing people go unpunished for committing offences.

Frustration of dealing with arrogant and abusive people.

TRYING TO MAKE MY WAGES LAST FROM THE FIRST TO LAST DAY OF THE MONTH.

0097 NO EVENTS ELICITED.

0098 Move to a new posting

(Takes a few months to settle in).

Lack of promotion.

DEATH OF CLOSE RELATIVES.

0099 Poor posting

(Not doing the job I wanted to do. Not being appreciated for what I believe were good qualities).

Changes of staff.

Working with Senior Management.

Not knowing what I am doing.

Uncertainty of Sheehy report.

PC KILLED ON RELIEF IN 1987; DEATH OF FATHER 1989;  
CAN'T THINK OF SPECIFIC INCIDENT WHICH MAKES ME REALISE  
HOW FORTUNATE I AM; OCCASIONALLY SUFFER FROM PERIODS OF  
SLIGHT DEPRESSION, USUALLY STEMS FROM BOREDOM AND  
ANXIETY ABOUT MINOR MATTERS.



- 0100 Tedious paperwork  
 (Too much to deal with and which can be easily reduced by using a computer system linked to the Home Office).  
 Communication barrier with foreigners.  
 Unfamiliar asylum cases.  
 Lack of help when public phone to enquire.  
 Impolite public.  
 THERE IS NO REAL TRAUMATIC EVENT WHICH AFFECTED ME AT WORK OR AT HOME WHICH HAS INVOLVED MY WORK PERFORMANCE.
- 0101 Demotion  
 (Employed as an XXX when I should have been fully qualified; They still employ me; When I started work Union members approached me and told me they were trying to get me out of the job; A lot of back stabbing and people warning me not to trust anyone; Then I was demoted to Clerical Grade and sent on a day release for one year to become qualified and promoted again).  
 Lack of training; When I first went out onto XXX everyone else received about 4 or 5 weeks training - I received about 5 days.  
 FIRST POST MORTEM; HAD NOT BEEN GIVEN MUCH TRAINING; NOT SURE WHAT I WAS SUPPOSED TO BE DOING; BADLY DECOMPOSED BODY; PARTICULAR MURDER I WENT TO; BLOODY SCENE AND THOUGHT I KNEW VICTIM UNTIL I GOT UP CLOSE; LEFT ON MY OWN IN A POLICE STATION FOR POLICE TO COLLECT ME AND TAKE ME TO POST MORTEM, LOTS OF TIME TO THINK ABOUT IT; VICTIMS OF ABUSE BREAK DOWN ON ME SEVERAL TIMES, QUITE DISTRESSING.
- 0102 Lack of manpower to do job  
 (can be particularly frustrating when an obvious job needs to be done but is not or is carried out superficially, very de-motivating to staff with a high workload and are finding it difficult to maintain standards).  
 Unnecessary paperwork.  
 Lack of resources.  
 Lack of understanding and co-operation from others.  
 DEATH OF A NUMBER OF XXX OFFICERS IN THE RECENT CRASH.
- 0103 Force/Divisional re structuring  
 (My Division has experienced continual change over past 2.5. years, initially losing a Ch/Supt from Management team, followed by borough policing experiment, a change back to a Supt, now the likelihood of another change of Management structure).  
 Quality of support from certain Central Branches.  
 DEATH OF WIFE FROM CANCER FOLLOWING A PERIOD OF ILLNESS WHICH RENDERED HER DISABLED; GRIEF.

- 0104 Adjusting to new posting  
(I was transferred to a new department dealing with a completely different type of work from which I had dealt with previously).  
Gaining new skills.  
Coping with extended travelling to and from work.  
BEING INVOLVED WITH THE SUICIDE OF A COLLEAGUE; SUICIDE TOOK PLACE AT WORK.
- 0105 Defective radios/Bad communications  
(The radios are old fashioned and are frequently defective; frustrating when communicating with colleagues).  
No effective protective equipment.  
Insufficient personnel on duty.  
Interrupted refreshment breaks.  
Night duty too long - 7 days plus two late turns.  
DEALING WITH A LARGE QUANTITY OF PRISONERS AS CUSTODY OFFICER IN ACCORDANCE WITH PACE ACT.
- 0106 Training of a new boss (grade above own) who seems to have little interest in the job  
(Burden of responsibility in office rests on myself for too long - effecting time spent in dealing with own sections of work load).  
Setting up and organising cost accounting in office with no training or past experience.  
Lack of training in specific law and how it relates to work.  
FATHER DUE TO DIABETIC CONDITION IS HAVING TROUBLE WITH EYES AND INVOLVES POSSIBLE OPERATION AND CHANCE OF SIGHT LOSS; FATHER FINDING IT HARD TO COME TO TERMS WITH THIS.
- 0107 NO EVENTS ELICITED.
- 0108 Civilianisation of my post  
(Out of mainstream policy so many of the points do not apply to me).  
Not employed in an area where my skills can be used.  
Suffering from tinnitus; have to wear a hearing aid.  
Lack of direction from Management.  
Colleagues reluctant to change when it is obvious change is required; no support from Management.  
BEING REMOVED FROM MY POST; WHICH I WAS BROUGHT INTO THE FORCE TO PERFORM; NO SERIOUS CONSIDERATION BEING GIVEN AS TO HOW TO USE MY SKILLS PROPERLY.

- 0109 Boredom - leading to unnecessary risk taking  
(lack of activity leads to boredom; this leads to unnecessary risk taking).  
Stress.  
Verbal abuse.  
Physical abuse.  
Lack of support.  
NOTHING COMES TO MIND.
- 0110 Stress of dealing with Senior Officers over important decisions involving anti-terrorist matters  
(Important decisions affecting the lives of people can be easy. however when certain Senior Officers give contradictory orders on matters which others have better knowledge it regularly causes stress and conflict).  
Uncertainty over promotion.  
Restructuring of Service.  
LARGE BOMB EXPLODED; IT IS POSSIBLE THAT IT COULD HAVE BEEN AVOIDED; MAN LOST HIS WIFE AND ENORMOUS DAMAGE CAUSED; I FELT THAT I MIGHT HAVE DONE MORE TO PREVENT IT, ALTHOUGH I DID AS MUCH AS POSSIBLE UNDER THE CIRCUMSTANCES.
- 0111 Market testing  
(Having had many transfers in my service I have found market testing to be the harshest and most immediate soul destroying mechanism for supposed improvement and efficiency. It may save money, but destroys morale).  
Not knowing how long my posting will last.  
Unnecessary and sudden change of Management.  
Transfer of staff.  
Staff shortages.  
SUFFERED BLAST INJURY IN IRA ATTACK.

0112 Getting to grips with high profile forensic technology (DNA)

(Continuing and on-going problem over a number of years; involved academically demanding approach to the situation which has been changing in a highly publicised manner; Difficult personally to develop confidence in dealing with this a further new technology has been introduced).

Coping with assistants in whom one has limited confidence in their abilities and whose work needs careful checking.

Dealing with more work than one feels comfortable in being able to handle efficiently and effectively.

Giving evidence in court in complex and high profile cases.

1985 WORKING WITH DEMANDING LINE MANAGER; NOT VERY COMPETENT ASSISTANT; SUFFERED STRESS SYNDROME - ANXIETY, FEELINGS OF INABILITY TO COPE, INABILITY TO MAKE DECISIONS - RESULTED IN A CHANGE OF POSITION. ORIGINAL EVENT WHEN WIFE AND I EXPECTING SECOND CHILD AND AFTER RECOVERING FROM PNEUMONIA; CONTINUES TO AFFECT ME DUE TO LOSS OF CONFIDENCE; COUNSELLING OBTAINED THROUGH G.P. OTHERWISE, NO PARTICULAR SHORT TERM TRAUMA.

0113 Inefficiency Of Senior Civil Staff

(It is the only problem which affects my work at present).

Promotions for the wrong reasons i.e. 'members of the lodge'.

Inefficiency of Senior Police Officers.

NO EVENT ELICITED.

0114 Trying to get through to Senior members of Civil Staff

(Changes in policy which they fail to understand; Constant calls which require changes to be explained countless times even though they have be published in Force Orders and Notices).

Others hiding behind half truths or not revealing the whole story.

BEING INVOLVED IN CIVIL PROCEEDINGS CONNECTED WITH WORK AND NOT BEING PROPERLY ADVISED CONCERNING THE CASE. THE CASE ITSELF OCCURRED SOME 6.5 YEARS AGO AND NO COMPLAINT WAS MADE AT THE TIME.

0115 Motivation on promotion

(My hopes have been raised having been selected for promotion, this has been delayed arbitrarily and I have been severely disadvantaged. I feel betrayed by my organisation).

Uncertainty of Police Force structure.

Lack of information.

THE ARBITRARY WAY IN WHICH MY PROMOTION WAS SUSPENDED THUS HALTING MY IMMEDIATE AMBITIONS; THE FEELING OF BEING UNJUSTLY TREATED BY AN ORGANISATION WHICH PROFESSES TO CARE FOR ITS WORKFORCE, CREATES INTENSE ANGER IN ME.

0116 Copious amounts of paperwork and duplication

(Self explanatory).

Having to deal with trivial matters which could be either resolved at the time or dealt with by someone else.

Lack of support from other agencies.

Constant liaison with victims and witnesses.

Not enough time or money to do the job properly.

DEALING WITH A MANSLAUGHTER WHERE CONSTANT DEALINGS WITH VICTIMS MOTHER WHO STILL KEEPS IN TOUCH SINCE 1986; DEALING WITH CHILD SEXUAL ABUSE; DEALING WITH VICTIMS UP TO AND INCLUDING THE TRIAL.

0117 Lack of promotion

(Due to cut backs of staff, promotion is now almost nil. The Police want the job performed in a professional manner but do not want to pay correct wages and that everything done is as cheap as possible. There is no incentive to perform beyond your own work).  
Civilian cut backs.

Non appreciation of work by police personnel.

Limited resources.

DEATH OF SON; WORKING WITH DEATH AS AN EVERYDAY EVENT, TRY TO BLOCK OUT PERSONAL INVOLVEMENT. OVER THE YEARS A FORM OF BARRIER BUILDS UP REGARDING EVENTS; IT IS CONSIDERED WITHIN THE DEPARTMENT THAT IT IS A WEAKNESS IF ONE BECOMES UPSET. OTHER DEATHS WITHIN THE FAMILY; BARRIER CRUMBLES AND THE RESULT IS FAR WORSE THAN A PERSON WORKING IN A NORMAL TYPE OF JOB; I FEEL MORE STRESS IN EVIDENT, ESPECIALLY WHEN YOU KNOW THAT BACK AT WORK YOU WILL STILL HAVE TO COPE WITH EVERYDAY WORK THAT YOUR JOB ENTAILS.

0118 Having someone who does not pull their weight

(It happens in my office quite a lot).

Having a boss that you do not get on with.

GRANDPARENTS PASSING AWAY WITHIN 3 MONTHS OF EACH OTHER.

- 0119 Staff cut backs  
(Having to completely re structure courses half way through a programme).  
Difficulty in running courses.  
Staff attitudes.  
PERSONAL VENDETTA BY ONE MEMBER OF STAFF - PROBABLY AGAINST AUTHORITY RATHER THAN PERSONAL.
- 0120 Exposure by the media  
(Because of the exposure I was removed from a position of great trust and responsibility and was put in another position where Senior Management could, 'keep an eye on me' and in fact I had done nothing wrong).  
EXPOSURE BY THE MEDIA IN NATIONAL PAPERS WHICH TRANSPIRED ME BEING MOVED FROM A JOB I WAS DOING OF GREAT RESPONSIBILITY AND TRUST. WHAT UPSET ME MOST WAS THE WAY THE ARTICLE WAS WRITTEN AND THEREFORE BELIEVED BY MOST SENIOR OFFICERS UP TO AND INCLUDING THE CHIEF CONSTABLE. THIS HAS NOW LEFT ME WITH VERY LITTLE FAITH IN SENIOR OFFICERS. MY IMMEDIATE SENIOR OFFICER HAD EVERY FAITH IN ME AND BELIEVED ME AND NOT THE PAPERS, AND NEARLY LOST HIS POSITION FIGHTING MY CAUSE.
- 0121 Harassment from a colleague  
BEING INFORMED THAT MY 18 MONTH DAUGHTER WOULD NOT SURVIVE THE NIGHT (SHE DID). WATCHING A DOG RUN OUT INTO A DUAL CARRIAGEWAY AND GET RUN OVER. GENERALLY WATCHING OR HEARING ABOUT CHILD ABUSE. BEING BULLIED BY OTHER HALF. WANTING TO BREAK AWAY FROM A BAD MARRIAGE BUT NOT WANTING IT TO AFFECT MY CHILDREN.
- 0122 Inability to take scheduled days off due to volume of work  
(because of its cumulative affects: tiredness, lack of concentration, disruption to family life, no time to shed stress through recreation).  
SEPARATION FROM WIFE.
- 0123 IN THE PARTICULAR JOB THAT I DO MY BEING AWAY FROM HOME FOR VERY LONG AND IRREGULAR PERIODS, FREQUENTLY AT SHORT NOTICE, CAUSES STRESS TO MY WIFE AT HOME. THIS IS AN ONGOING PROBLEM AND ACCORDINGLY REBOUNDS STRESSFULLY ON ME. THIS SITUATION IS THE SINGLE BIGGEST STRESS FACTOR APPLICABLE TO MY JOB (NO ONE EVENT RECENTLY FITS THE BILL).

- 0124 One year old and 3 year old children are continually ill. Very stressful, not getting sleep at night and coming home to spouse who is stressed out by their behaviour, makes me tired at work  
(I can't think of work problems but I find it hard when I am tired. I am normally busy with a high workload and I need to be fresh and alert to enjoy it. Having young children often leads to little sleep/disturbed nights. PAID A ROOFER £500 TO COMPLETE EXTENSION. HE KEPT FAILING TO TURN UP AND I BEGAN TO THINK HE HAD STOLEN MY MONEY. HE EVENTUALLY COMPLETED THE WORK BUT I WORRIED ABOUT IT CONSTANTLY.
- 0125 Trying to implement notions of equality and fairness in work place  
(Nothing erodes morale more than working in an atmosphere of distrust caused by a sense of injustice or unfairness. If this atmosphere can be eradicated then one obstacle in the path of team building can be removed).  
Delegation: having the confidence that work is being done properly.  
Working without management or guidance.  
ILLNESS OF SON WHICH RESULTED IN HIM BEING HANDICAPPED.
- 0126 Long hours  
(After starting work early in the morning, sometimes finishing after midnight, you are expected to drive again after only a few hours later, with little sleep - including travelling to and from work).  
DRIVING A DET. SUPERINTENDENT ON A MURDER INQUIRY INVOLVING A SERIAL KILLER FOR SIX MONTHS.
- 0127 Work overload  
(some cases are very long winded and because of their severity take precedence over minor crimes. When you then get around to the minor investigations no one appears happy with the investigation or the results. It always appears to be a no win situation).  
Bad internal communication.  
Bad management/supervision.  
Very bad computer systems to work with.  
Very low morale and constant arguments.  
NUMEROUS VIEWING OF A DEAD CHILD OVER A PERIOD OF THREE WEEKS.

- 0128 Hours  
(I chose this one because we have to work long hours to earn a decent wage).  
Wages.  
Vehicles.  
I WAS INJURED IN A CAR ACCIDENT ON THE WAY TO WORK SOME THREE MONTHS AGO.
- 0129 The chance of losing work to outside agencies  
(Privatisation means us being out of work).  
The threat of having to retire at 60 instead of 65.  
THE POSSIBILITY OF HAVING TO RETIRE BEFORE I AM 65 WITH NO STATE PENSION AND A COMPANY PENSION THAT YOU COULD NOT POSSIBLY LIVE ON.
- 0130 Prisoners  
(I worked on Prison Vans as a driver for three years, it changed my moods drastically from being happy go lucky to being very snappy and very unhappy).  
Injury at work.  
Public order events.  
MY WIFE AND I LOST OUR BABY 4 YEARS AGO.
- 0131 Carrying and dealing with prisoners  
(This has had the most effect on my working life due to the fact that it is one part of my job which I hate).  
Dealing with public unrest and demonstrations.  
The uncertainty of when my duty would finish.  
The traffic problems of London.  
Awkwardness of staff that I work with.  
HAVING BEEN ON XXX AND OTHER RIOTS, BEING PUT IN A POSITION WHERE I WAS LEFT ALONE ON A COACH WHEN THE POLICE OFFICERS HAVE ALIGHTED TO DEAL WITH THE UNREST -  
THANKFULLY THIS DOES NOT HAPPEN NOW.



0132 Lack of good management - people who know what they are doing

(No real chance of promotion, Management had no idea of the work we were doing. Managers must be in a position to meet the needs of individuals, answer questions on work matters without turning the question around and asking others what they would do. What is the point of having rule and regulations of work, when employees who have worked in a place for years get no recognition and are walked all over).

Staff Liaison Officer who could not give a damn.

No motivation given to employees to move up a step.

Red tape and law constraints.

ONE EVENT HAD IMPACT ON DEPARTMENT. ILLEGAL IMMIGRANT DUE FOR DEPORTATION. ILLEGAL IMMIGRANTS CONTINUALLY DELAY DEPORTATION, MORE TIME AND EFFORT AND MONEY SPENT ETC.

0133 Being 150 yards from a car bomb

(This happened less than 24 hours ago).

Overtime money constraints.

Senior Officer with lack of knowledge about nature of work.

Dealing with many different Police Forces and agencies.

Difficult job.

FEAR THAT MY WIFE HAD BREAST CANCER - I WAS ON DUTY OUTSIDE THE U.K. WHEN SHE SAW THE DOCTOR (COULD NOT SUPPORT HER).

0134 Resolving differences between colleagues

(Particularly relevant at the time and it affects the efficiency of uniform policing, causing me great concern).

Coping with changing Policing style.

Justifying perceived ineffectiveness to Public.

Maintaining personal morale.

Poor working conditions.

LACK OF RECOGNITION FOLLOWING AN ARREST OF A PERSON IN POSSESSION OF A LOADED SHOTGUN WHO HAD JUST MURDERED HIS WIFE; APPEARING BEFORE A DISCIPLINARY BOARD FOR NEGLIGENCE OF DUTY.

APPENDIX "D"  
SHOWING DETAILS OF THE  
MAIN U.K. FORCES  
SEQUENTIAL TRAUMA QUESTIONNAIRE

"Trauma In The Workplace"  
FORCES QUESTIONNAIRE.

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

Compiled by:  
K.M.Peters-Bean  
Inspector  
METROPOLITAN POLICE SERVICE.

For future reference or further information,  
Please note this contact address:-

Kyron M. Peters-Bean  
Cranfield University  
Department Of Applied Psychology  
CRANFIELD, Bedfordshire MK43 0AL  
0234-750111 Extension 5229.

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

Dear Colleague,

May I invite your participation in a study which is concerned with how Personnel in 'high-risk occupations' may, or may not, experience traumatic situations at the workplace or in the home.

YOU HAVE BEEN CHOSEN IN A COMPLETELY RANDOM MANNER TO TAKE PART IN THIS SURVEY. THE RESEARCHER HAS NO PRIOR INFORMATION ABOUT YOU OR YOUR CURRENT WORK OR DOMESTIC SITUATION.

I am writing to you as someone who will have something valuable to contribute, namely:

(a) You will provide information which will assist in understanding events that may cause some people anxiety.

(b) You will help in the development of timely and appropriate methods for dealing with traumatic events at an early stage - which may be of benefit to your colleagues in the future.

The questionnaire looks long but will only take about **HALF AN HOUR** to complete. The questions are straightforward and have no hidden meanings. Some of the questions appear repetitive but this is intentional.

If you think that you can assist, please follow the instructions on each page and return the questionnaire AS SOON AS POSSIBLE to Kyron M. Peters-Bean.

If you DO NOT wish to take part at this stage please return the questionnaire unmarked, so that it may be used again.

PLEASE USE THE FREEPOST ENVELOPE SUPPLIED - YOU NEED NO STAMP.

Thank you for your help and constructive assistance in what is proving to be a valuable study of general working conditions in Police organisations.

Your time and effort is much appreciated.

Whilst individual feedback cannot be given - at the conclusion of the survey a summary of results will be available to anyone who requests it. You may also telephone for advice and assistance at any stage of the survey.

Yours Sincerely,

Kyron M. Peters-Bean  
Inspector.

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

PLEASE READ THIS 'INFORMED CONSENT' NOTICE BEFORE CONTINUING.

1. This is part of a National Study which is sponsored under the Bramshill Fellowship Scheme and the ACPO Joint Committee On Organisational Health and Welfare.
2. Permission has been granted for the research to be undertaken in your Constabulary, subject to the provisions that your responses will be treated in complete confidentiality and anonymity.
3. YOUR CONSTABULARY UNDERSTANDS THAT THEY WILL NOT BE PROVIDED WITH INFORMATION CONCERNING ANY INDIVIDUAL OR THEIR RESPONSES.
4. PLEASE NOTE:- This questionnaire asks for your opinion on questions, some of which are of a sensitive nature.

If at any time you feel distressed and you would like to talk to someone about your feelings, you are recommended to contact your local Welfare Branch or occupational Health Adviser. Alternatively you might consider contacting your own General Practitioner for assistance.

5. If you would like any of the above points clarified or an explanation about the research, please do not hesitate to contact the researcher (in confidence).

The name and address is on the front cover - please take a note for future reference.

6. PARTICIPATION IN THIS RESEARCH IS PURELY VOLUNTARY AND YOUR COOPERATION IS DEPENDENT ON UNDERSTANDING THIS 'INFORMED CONSENT' NOTICE.
7. If you feel that you cannot make a contribution, return the questionnaire unmarked using the FREEPOST envelope supplied.
8. If you feel that you would like to respond please continue below ANSWERING ALL THE QUESTIONS as honestly and as frankly as you can.

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

If you would like to make your contribution to the research study, please now follow the instructions below.

INSTRUCTIONS.

1. Read the headings on each page carefully. Once you have understood what is required, write down your responses as quickly as you can.

2. REMEMBER:-

It is YOUR answers that matter.

Please complete this questionnaire alone and preferably in a quiet place.

THERE ARE NO RIGHT OR WRONG ANSWERS AND ANY INFORMATION GIVEN WILL BE TREATED IN THE STRICTEST CONFIDENCE AND WILL NOT BE PASSED TO ANY PERSON OTHER THAN THE RESEARCHER.

THIS IS EXPLICIT THROUGHOUT THE QUESTIONNAIRE.

YOU MUST ANSWER ALL THE QUESTIONS.

3. Confidentiality and anonymity is GUARANTEED because:

- (a) The researcher is the only person who will contact you regarding the research.
- (b) Once the questionnaire is returned, it is coded onto a computer and the original will be destroyed.
- (c) No information can be attributed to an individual once the questionnaire has been completed and posted using the FREEPOST envelope.
- (d) It may not be possible to send you a REMINDER so I respectfully ask you to complete this questionnaire at the earliest opportunity. If you find that you cannot answer the questions, please return it FREEPOST unmarked so that it may be used again.

The Information That You Provide  
Will Assist In Helping YOUR Colleagues  
Should They Get Into Difficulty.  
So YOUR Cooperation Is Urgently Sought.

THANK YOU FOR TAKING PART.

1.1. WORK PROBLEMS.

This part of the questionnaire asks how often you encounter potential problems or situations at work. You are asked to look at a number of different items on the list below and think about whether they have applied to you **IN THE RECENT PAST**. Once you have made your choice circle the appropriate number in the box provided.

-----  
**RESPONSE ALTERNATIVES:**

- 1 = Has not applied
  - 2 = Has hardly ever applied
  - 3 = Has sometimes applied
  - 4 = Has often applied
  - 5 = Has very often applied
- 

**IN THE RECENT PAST I HAVE HAD TO DEAL WITH:**

	+-----+   CIRCLE YOUR CHOICE				
Work related matters involving violent persons and/or prisoners	1	2	3	4	5
Work related matters involving tedious administration/paperwork	1	2	3	4	5
Work related accidents involving serious injury and/or damage	1	2	3	4	5
Work related sudden deaths and/or death messages to relatives	1	2	3	4	5
Work related matters relating to abuse and/or care of children	1	2	3	4	5
Work related matters relating to domestic violence	1	2	3	4	5
Work related matters involving public order and/or disorder	1	2	3	4	5
Work related matters involving Criminal/Civil courts proceedings	1	2	3	4	5
Work related matters involving chemical and/or physical hazards	1	2	3	4	5
Work related matters involving hazards such as blood/urine etc.	1	2	3	4	5

2.1. PROBLEMS BEYOND WORK.

This part of the questionnaire asks if you have encountered any potential problems in the home. If there ARE any domestic problems which may have influenced the way that you feel **IN THE RECENT PAST** could you please answer the questions below (otherwise continue on page 7):

-----

2.2. Do you think this problem has affected **YOUR** home life?  
(CIRCLE YOUR CHOICE)

NOT AT ALL    1    2    3    4    5    6    7    VERY MUCH

2.3. Do you think this problem has affected **YOUR** work life?  
(CIRCLE YOUR CHOICE)

NOT AT ALL    1    2    3    4    5    6    7    VERY MUCH

2.4. Are you still experiencing this problem?  
(CIRCLE YOUR CHOICE)

NOT AT ALL    1    2    3    4    5    6    7    VERY MUCH

2.5. When did this problem first occur?  
(WRITE YOUR ANSWER IN NUMBER FORM).

[    ] YEARS    [    ] MONTHS





\*\*\* STRICTLY CONFIDENTIAL \*\*\*

Below are a list of statements which are designed to assess how YOU feel about the particular event that you mentioned above. Please look at the items carefully and circle the appropriate number ON BOTH SCALES that mostly applies to you.

FIRSTLY, CIRCLE EITHER 0,1,2 or 3 FOR **FREQUENCY** OF OCCURRENCE OF THE STATEMENT AND SECONDLY CIRCLE EITHER 0,1,2, or 3 FOR **INTENSITY** OF OCCURRENCE FOR THE SAME STATEMENT.

FREQUENCY OF OCCURRENCE	INTENSITY OF OCCURRENCE
0 = Does not apply	0 = Does not occur
1 = Rarely applies	1 = Mildly occurred
2 = Sometimes applies	2 = Moderately occurred
3 = Often applies	3 = Severely occurred

	CIRCLE YOUR CHOICE							
	FREQUENCY				INTENSITY			
I had waves of strong feelings about the event	0	1	2	3	0	1	2	3
Things I saw or heard suddenly reminded me of the event	0	1	2	3	0	1	2	3
I thought about the event when I did not mean to	0	1	2	3	0	1	2	3
Images related to the event popped into my mind	0	1	2	3	0	1	2	3
Any reminder brought back emotions related to the event	0	1	2	3	0	1	2	3
I have difficulty falling asleep because of images or thoughts related to the event	0	1	2	3	0	1	2	3
I had bad dreams related to the event	0	1	2	3	0	1	2	3

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

FIRSTLY, CIRCLE EITHER 0,1,2 or 3 FOR **FREQUENCY** OF OCCURRENCE OF THE STATEMENT AND SECONDLY CIRCLE EITHER 0,1,2, or 3 FOR **INTENSITY** OF OCCURRENCE FOR THE SAME STATEMENT.

FREQUENCY OF OCCURRENCE	INTENSITY OF OCCURRENCE
0 = Does not apply	0 = Does not occur
1 = Rarely applies	1 = Mildly occurred
2 = Sometimes applies	2 = Moderately occurred
3 = Often applies	3 = Severely occurred

	CIRCLE YOUR CHOICE							
	FREQUENCY				INTENSITY			
I knew that a lot of unresolved feelings were still there but I kept them to myself	0	1	2	3	0	1	2	3
I avoided letting myself get emotional when I thought about it or was reminded of the event	0	1	2	3	0	1	2	3
I wished to banish the event from my store of memories	0	1	2	3	0	1	2	3
I made an effort to avoid talking about the event	0	1	2	3	0	1	2	3
I felt unrealistic about the event as if it had not happened or as if it was not real	0	1	2	3	0	1	2	3
I stayed away from things or situations that might remind me of the event	0	1	2	3	0	1	2	3
My emotions related to the event were kind of numb	0	1	2	3	0	1	2	3
I did not let myself have thoughts related to the event	0	1	2	3	0	1	2	3

4.1. APPRAISAL OF TRAUMATIC EVENTS.

This part of the questionnaire asks specific questions about how you FIRST PERCEIVED any of the potentially traumatic life events which were mentioned above. YOU will be asked to look at a number of different items on the list below and think about how they have affected you **IN THE RECENT PAST.**

Once you have made your choice circle the appropriate number in the box provided.

-----  
**RESPONSE ALTERNATIVES:**

- 1 = Not at all
  - 2 = Hardly ever
  - 3 = Sometimes
  - 4 = Often
  - 5 = A great deal
- 

**IN THE RECENT PAST A TRAUMATIC LIFE EVENT MADE ME FEEL:**

	CIRCLE YOUR CHOICE				
That I would not achieve an important goal	1	2	3	4	5
That I would lose the respect of someone important to me	1	2	3	4	5
That I would appear to be incompetent	1	2	3	4	5
That my self esteem would appear to be threatened	1	2	3	4	5
That I would appear to feel embarrassed	1	2	3	4	5
That I would appear to be an unsupportive person	1	2	3	4	5
That I would appear to be difficult to get along with	1	2	3	4	5
That I would appear to be in the wrong	1	2	3	4	5

4.2. APPRAISAL OF TRAUMATIC EVENTS.

This part of the questionnaire asks specific questions about how you would DESCRIBE any of the potentially traumatic life events which were mentioned above. YOU will be asked to look at a number of different items on the list below and think about how they have affected you **IN THE RECENT PAST**.

Again, once YOU have made your choice circle the appropriate number in the box provided.

-----  
**RESPONSE ALTERNATIVES:**

- 1 = Not at all
  - 2 = Hardly ever
  - 3 = Sometimes
  - 4 = Often
  - 5 = A great deal
- 

**IN THE RECENT PAST A TRAUMATIC LIFE EVENT COULD BEST BE DESCRIBED AS:**

	CIRCLE YOUR CHOICE				
1   One that I could change or   do something about	1	2	3	4	5
2   One that I must accept or that   I just got used to	1	2	3	4	5
3   One where I needed to know more   information before I could act	1	2	3	4	5
4   One where I needed to hold myself   back from doing what I wanted	1	2	3	4	5
5   One where work bureaucracy made   it difficult to deal with	1	2	3	4	5
6   One where, if I dealt with it in   the way I wanted, it would have   made things difficult for me	1	2	3	4	5

4.3. Looking again at the above list of items which have been numbered 1 through to 6. Would you write down the item NUMBER which best describes how the incident affected you personally.

My Number Choice is:   +-----+  
                           |      |  
                           +-----+

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

5.1. GENERAL HEALTH MEASURES.

This part of the questionnaire is concerned with your general state of health over the **LAST FEW WEEKS ONLY**. On each item circle the choice that most nearly applies to you.

-----  
 HAVE YOU RECENTLY -

1. Been able to concentrate on whatever you are doing?	Better than usual	Same as usual	Less than usual	Much Less than usual
2. Been losing confidence in yourself?	Not at all	No more than usual	Rather more than usual	Much more than usual
3. Felt that you were playing a useful part in things?	More so than usual	Same as usual	Less useful than usual	Much Less useful
4. Lost much sleep over worry?	Not at all	No more than usual	Rather more than usual	Much more than usual
5. Felt capable of making decisions about things?	More so than usual	Same as usual	Less so than usual	Much Less capable
6. Felt constantly under strain?	Not at all	No more than usual	Rather more than usual	Much more than usual
7. Been able to face up to your problems?	More so than usual	Same as usual	Less able than usual	Much Less able
8. Felt that you couldn't overcome your difficulties?	Not at all	No more than usual	Rather more than usual	Much more than usual
9. Been able to enjoy your normal day-to-day activities?	More so than usual	Same as usual	Less so than usual	Much Less than usual
10. Been feeling unhappy and depressed?	Not at all	No more than usual	Rather more than usual	Much more than usual
11. Been feeling reasonably happy all things considered?	More so than usual	About same as usual	Less so than usual	Much less than usual
12. Been thinking of yourself as a worthless person?	Not at all	No more than usual	Rather more than usual	Much more than usual

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

Here are some questions regarding the way you behave, feel and act. Try to decide which response option represents your usual way of acting or feeling. There are no right or wrong answers: your immediate reaction is what we want. Please check that you have answered all the questions.

-----  
**RESPONSE ALTERNATIVES:**

- 1 = Almost never
  - 2 = Quite seldom
  - 3 = Quite often
  - 4 = Almost always
- 

ITEM RESPONSE	CIRCLE CHOICE
Does your mood go up and down?	1 2 3 4
Do you feel 'just miserable' for no good reason?	1 2 3 4
When you get annoyed do you need someone friendly to talk to?	1 2 3 4
Are you troubled by feelings of guilt?	1 2 3 4
Would you call yourself tense or 'highly strung'?	1 2 3 4
Do you suffer from sleeplessness?	1 2 3 4

**6.1. COPING MEASURES.**

People use a variety of different coping techniques to manage the many different situations in which they feel under stress. Listed below are a number of techniques that people have said they use to help them in these stressful situations.

Please respond to each of the following statements in order to describe the way you **GENERALLY** handle stressful situations. Please circle the response alternative of your choice on the scale provided alongside each item.

**RESPONSE ALTERNATIVES:**

- 1 = I do not use this technique
- 2 = I seldom use this technique
- 3 = I sometimes use this technique
- 4 = I frequently use this technique
- 5 = I always use this technique

**IN HANDLING STRESSFUL SITUATIONS I WOULD GENERALLY:**

ITEM	CIRCLE CHOICE
Try to change the situation to get what I want	1 2 3 4 5
Make an effort to change my expectations	1 2 3 4 5
Try to convince myself that the problem was not very important after all	1 2 3 4 5
Try to keep myself from thinking about the problem	1 2 3 4 5
Try to let off steam	1 2 3 4 5
Talk to someone to find out more about the situation	1 2 3 4 5
Focus my efforts on changing the situation	1 2 3 4 5
Try to convince myself that the way things were, was in fact, acceptable	1 2 3 4 5
Tell myself that the problem was unimportant	1 2 3 4 5
Try to turn my attention away from the problem	1 2 3 4 5
Try to relieve my tension somehow	1 2 3 4 5
Accept sympathy and understanding from someone	1 2 3 4 5

**\*\*\* STRICTLY CONFIDENTIAL \*\*\***

Please respond to each of the following statements in order to describe the way you **GENERALLY** handle stressful situations. Please circle the response alternative of your choice on the scale provided alongside each item.

**RESPONSE ALTERNATIVES:**

- 1 = I do not use this technique
- 2 = I seldom use this technique
- 3 = I sometimes use this technique
- 4 = I frequently use this technique
- 5 = I always use this technique

**IN HANDLING STRESSFUL SITUATIONS I WOULD GENERALLY:**

ITEM	CIRCLE CHOICE				
Work on changing the situation to get what I want	1	2	3	4	5
Try to adjust my expectations to meet the situation	1	2	3	4	5
Tell myself the problem was not so serious after all	1	2	3	4	5
Refuse to think about the problem	1	2	3	4	5
Try to get it off my chest	1	2	3	4	5
Ask a relative or friend I respect, for advice	1	2	3	4	5
Try to fix what was wrong with the situation	1	2	3	4	5
Try to adjust my own standards	1	2	3	4	5
Tell myself the problem was not such a big deal after all	1	2	3	4	5
Try to avoid thinking about the problem	1	2	3	4	5
Try to relax	1	2	3	4	5
Talk to someone about how I was feeling	1	2	3	4	5



7.1. PERSONAL VIEWS ABOUT THE WORLD.

It has been suggested that the way in which we form opinions about the world may affect our response to situations that can be potentially traumatic. The following questions have been designed to assess YOUR basic understanding or views about the world.

YOU are asked to look at the items below and circle the number which best reflects the view that you hold about the world.

-----  
**RESPONSE ALTERNATIVES:**

- 1 = Strongly agree
  - 2 = Agree very much
  - 3 = Agree slightly
  - 4 = Disagree slightly
  - 5 = Disagree very much
  - 6 = Strongly disagree
- 

ITEM	CIRCLE CHOICE					
Misfortune is least likely to strike worthy decent people	1	2	3	4	5	6
People are naturally unfriendly and unkind	1	2	3	4	5	6
Bad events are distributed to people at random	1	2	3	4	5	6
Human nature is basically good	1	2	3	4	5	6
The good things that happen in this world far outnumber the bad	1	2	3	4	5	6
The course of our lives is largely determined by chance	1	2	3	4	5	6
Generally people get what they deserve in this world	1	2	3	4	5	6
I often think I am no good at all	1	2	3	4	5	6
There is more good than evil in the world	1	2	3	4	5	6
I am basically a lucky person	1	2	3	4	5	6
Peoples misfortunes result from the mistakes they have made	1	2	3	4	5	6

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

Again, YOU are asked to look at the items below and circle the number which best reflects the view that you hold about the world.

-----  
**RESPONSE ALTERNATIVES:**

- 1 = Strongly agree
  - 2 = Agree very much
  - 3 = Agree slightly
  - 4 = Disagree slightly
  - 5 = Disagree very much
  - 6 = Strongly disagree
- 

ITEM	CIRCLE CHOICE					
People don't really care what happens to the next person	1	2	3	4	5	6
I usually behave in ways that are likely to maximise good results	1	2	3	4	5	6
People will experience good fortune if they themselves are good	1	2	3	4	5	6
Life is too full of uncertainties that are determined by chance	1	2	3	4	5	6
When I think about it, I consider myself very lucky	1	2	3	4	5	6
I almost always make an effort to prevent bad things happening to me	1	2	3	4	5	6
I have a low opinion of myself	1	2	3	4	5	6
By and large good people get what they deserve in this world	1	2	3	4	5	6
Through our actions we can prevent bad things from happening to us	1	2	3	4	5	6
Looking at my life I realise that chance events have worked out well	1	2	3	4	5	6
If people took preventative actions most misfortune could be avoided	1	2	3	4	5	6

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

Again, YOU are asked to look at the items below and circle the number which best reflects the view that you hold about the world.

-----  
**RESPONSE ALTERNATIVES:**

- 1 = Strongly agree
  - 2 = Agree very much
  - 3 = Agree slightly
  - 4 = Disagree slightly
  - 5 = Disagree very much
  - 6 = Strongly disagree
- 

ITEM	CIRCLE CHOICE					
I take the actions necessary to protect myself from misfortune	1	2	3	4	5	6
In general, life is mostly a gamble	1	2	3	4	5	6
The world is a good place	1	2	3	4	5	6
People are basically kind and helpful	1	2	3	4	5	6
I usually behave so as to bring about the greatest good for me	1	2	3	4	5	6
I am very satisfied with the kind of person I am	1	2	3	4	5	6
When bad things happen, it is typically because people have not taken the necessary actions to protect themselves	1	2	3	4	5	6
If you look closely enough you will see that the world is full of goodness	1	2	3	4	5	6
I have reason to be ashamed of my personal character	1	2	3	4	5	6
I am luckier than most people	1	2	3	4	5	6

8. BEST PRACTICE SECTION.

Attempts are being made to develop 'best practise' for dealing with any or all traumatic events at an early stage. Below is a brief checklist of some of the methods which are already being explored.

Could you indicate by ticking the box either 'NO' or 'YES' - if you think these methods would be helpful for you or your colleagues?

METHOD	TICK ONE BOX ONLY				
Clearer information on the causes and effects of stress/anxiety/trauma	<input type="checkbox"/>	<input type="checkbox"/>	NO	<input type="checkbox"/>	YES
In house counselling for the personal effects of stress/anxiety/trauma	<input type="checkbox"/>	<input type="checkbox"/>	NO	<input type="checkbox"/>	YES
External counselling for the personal effects of stress/anxiety/trauma	<input type="checkbox"/>	<input type="checkbox"/>	NO	<input type="checkbox"/>	YES
Clearer supervisory training on the effects of stress/anxiety/trauma	<input type="checkbox"/>	<input type="checkbox"/>	NO	<input type="checkbox"/>	YES
Clearer individual training on the effects of stress/anxiety/trauma	<input type="checkbox"/>	<input type="checkbox"/>	NO	<input type="checkbox"/>	YES
In house debriefing on the effects of stress/anxiety/trauma	<input type="checkbox"/>	<input type="checkbox"/>	NO	<input type="checkbox"/>	YES
External debriefing on the effects of stress/anxiety/trauma	<input type="checkbox"/>	<input type="checkbox"/>	NO	<input type="checkbox"/>	YES
Self help package on how to deal with stress/anxiety/trauma	<input type="checkbox"/>	<input type="checkbox"/>	NO	<input type="checkbox"/>	YES
A specific newsletter or journal which provides current information on the effects of stress/anxiety/trauma	<input type="checkbox"/>	<input type="checkbox"/>	NO	<input type="checkbox"/>	YES
Regular features in local newsletters or journals which provides current information on stress/anxiety/trauma	<input type="checkbox"/>	<input type="checkbox"/>	NO	<input type="checkbox"/>	YES
OTHER (PLEASE SPECIFY BELOW).....					

\*\*\* STRICTLY CONFIDENTIAL \*\*\*

9. STATISTICAL DATA.

The last part of this questionnaire is to elicit data for statistical analysis only. Please note that all information given will be treated in the strictest confidence and will not be passed to any person other than the researcher. Please answer all the questions.

-----

FORCE/CONSTABULARY TITLE REF:	
What is your AGE?	[ ] YEARS [ ] MONTHS
What is your current LENGTH OF SERVICE?	[ ] YEARS [ ] MONTHS
What is your GENDER?	[ ] FEMALE [ ] MALE
What is your current DOMESTIC STATUS? (Tick ONE BOX only)	[ ] MARRIED (LIVING WITH SPOUSE)
	[ ] NOT MARRIED (BUT WITH A STEADY RELATIONSHIP)
	[ ] DIVORCED or SEPARATED
	[ ] WIDOWED
	[ ] SINGLE
What is your current RANK or GRADE? (Do NOT use abbreviations)	
What is your current POST? (Do NOT use abbreviations)	
HOW LONG HAVE YOU BEEN IN YOUR CURRENT POST?	[ ] YEARS [ ] MONTHS

Thank you for providing the information in this important and developmental questionnaire. The data you have contributed will be very valuable and will be analysed shortly. Whilst individual feedback cannot be given, at the conclusion of the survey a short summary of the results and findings will be made available on request.

PLEASE BE ASSURED THAT THE QUESTIONS ASKED, WHICH ARE OF A SENSITIVE NATURE, WILL NOT BE PASSED TO ANY PERSON OTHER THAN THE RESEARCHER, NOR CAN IT BE ATTRIBUTED TO ANY INDIVIDUAL ONCE IT HAS BEEN RETURNED.

When you have FINISHED AND CHECKED that all the sections have been completed **Please return this as soon as possible using the** When you have FINISHED AND CHECKED that all the sections have **FREEPOST ENVELOPE provided - You do NOT need a stamp.**

**APPENDIX "E"**  
**Showing The SPSSPC+ Command File**  
**Used In This Study.**

```
DATA LIST FILE = `C:\spss\DATA'/ SNO 1-4 AGE 6-9 (2) SERVICE 11-14 (2)
GENDER 16 MARSTAT 18 JOB 20-21 POST 23-24
INPOST 26-29 (2) DEPT 31-32 FORCE 34-35
/WORK1 TO WORK10 6-15 WORKEX1 TO WORKEX5 17-21 WORKST 23 WORKOC 25-28 (2)
DOM1 TO DOM10 30-39
/IES 6 IEST 8 IESOC 10-13 (2) INTRUDE1 TO INTRUDE7 15-21
INTEX1 TO INTEX7 23-29 AVOID1 TO AVOID8 31-38
AVEX1 TO AVEX8 40-47
/PTSD1 TO PTSD17 6-22
/PRIME1 TO PRIME8 6-13 SECOND1 TO SECOND6 15-20 SECEX 22
/GHQ1 TO GHQ12 6-17 N1 TO N6 19-24
/CCS1 TO CCS24 6-29
/WAS1 TO WAS32 6-37 TRAUMA 39 COMMS 41
/BEST1 TO BEST11 6-16
```

**VARIABLE LABELS SNO `Subject Number'**

```
/AGE `Years and Months'
/SERVICE `Length Of Service'
/GENDER `Sex Of Subject'
/MARSTAT `Marital Status'
/JOB `Rank/Grade'
/POST `Current Post'
/INPOST `Service In Post'
/DEPT `Group in post'
/FORCE `Respondents Force'
/WORK1 `Violence'
/WORK2 `Admin'
/WORK3 `Accidents'
/WORK4 `Deaths'
/WORK5 `Children'
/WORK6 `Domestics'
/WORK7 `Public Order'
/WORK8 `Courts'
/WORK9 `Chem/Phys'
/WORK10 `Biological'
/WORKEX1 TO WORKEX5 `Extra Work'
/WORKST `Problem'
/WORKOC `Problem Occur'
/DOM1 `Sickness'
/DOM2 `Injury/Accident'
/DOM3 `Housing'
/DOM4 `Alcohol/Drugs'
/DOM5 `Stress'
/DOM6 `Unsocial Hours'
/DOM7 `Emotional'
/DOM8 `Sig. Others'
/DOM9 `Family'
/DOM10 `Financial'
/IES `Event Elicited'
/IEST `Problem'
/IESOC `Problem Occur'
/INTRUDE1 `Feelings'
/INTRUDE2 `Reminders'
/INTRUDE3 `Thoughts'
/INTRUDE4 `Images'
/INTRUDE5 `Emotions'
```

/INTRUDE6 `Insomnia'  
 /INTRUDE7 `Dreams'  
 /INTEX1 `INT. Feelings'  
 /INTEX2 `INT. Reminders'  
 /INTEX3 `INT. Thoughts'  
 /INTEX4 `INT. Images'  
 /INTEX5 `INT. Emotions'  
 /INTEX6 `INT. Insomnia'  
 /INTEX7 `INT. Dreams'  
 /AVOID1 `(AVD) Feelings'  
 /AVOID2 `(AVD) Emotions'  
 /AVOID3 `(AVD) Denial'  
 /AVOID4 `(AVD) Talking'  
 /AVOID5 `(AVD) Realism'  
 /AVOID6 `(AVD) Reminders'  
 /AVOID7 `(AVD) Numbness'  
 /AVOID8 `(AVD) Thoughts'  
 /AVEX1 `INT. Feelings'  
 /AVEX2 `INT. Emotions'  
 /AVEX3 `INT. Denial'  
 /AVEX4 `INT. Talking'  
 /AVEX5 `INT. Realism'  
 /AVEX6 `INT. Reminders'  
 /AVEX7 `INT. Numbness'  
 /AVEX8 `INT. Thoughts'  
 /PTSD1 `Distress (INT)'  
 /PTSD2 `Dreams (INT)'  
 /PTSD3 `Emotions (INT)'  
 /PTSD4 `Original Trauma (INT)'  
 /PTSD5 `Thoughts (AV)'  
 /PTSD6 `Recollect (AV)'  
 /PTSD7 `Recall Trauma (AV)'  
 /PTSD8 `Diminished Interest (AV)'  
 /PTSD9 `Estrangement (AV)'  
 /PTSD10 `Unable To Love (AV)'  
 /PTSD11 `No Future (AV)'  
 /PTSD12 `INSOMNIA (HYP)'  
 /PTSD13 `ANGER (HYP)'  
 /PTSD14 `CONCENTRATION (HYP)'  
 /PTSD15 `HYPERVIGILANCE (HYP)'  
 /PTSD16 `START.RESPONSE (HYP)'  
 /PTSD17 `PHYS. RESPONSE (HYP)'  
 /PRIME1 `No Goals'  
 /PRIME2 `Respect'  
 /PRIME3 `Incompetent'  
 /PRIME4 `Threatened'  
 /PRIME5 `Embarrassed'  
 /PRIME6 `Unsupportive'  
 /PRIME7 `Difficult'  
 /PRIME8 `Wrong'  
 /SECOND1 `Change'  
 /SECOND2 `Accept'  
 /SECOND3 `Hold Back'  
 /SECOND4 `Information'  
 /SECOND5 `Bureaucracy'  
 /SECOND6 `Difficulty'  
 /SECEX `SA Choice'  
 /GHQ1 `Concentrate'  
 /GHQ2 `Confidence'  
 /GHQ3 `Useful'  
 /GHQ4 `Sleep'

/GHQ5 `Decisions'  
/GHQ6 `Strain'  
/GHQ7 `Problems'  
/GHQ8 `Difficulties'  
/GHQ9 `Activities'  
/GHQ10 `Depressed'  
/GHQ11 `Happy'  
/GHQ12 `Worthless'  
/N1 `Mood'  
/N2 `Miserable'  
/N3 `Talk to'  
/N4 `Guilt'  
/N5 `Neuroticism'  
/N6 `Sleeplessness'  
/CCS1 `Situation'  
/CCS2 `Expectations'  
/CCS3 `Not important'  
/CCS4 `Keep from thinking'  
/CCS5 `Let off steam'  
/CCS6 `Information'  
/CCS7 `Focus'  
/CCS8 `Accept'  
/CCS9 `Unimportant'  
/CCS10 `Divert'  
/CCS11 `Relief'  
/CCS12 `Sympathy'  
/CCS13 `Work'  
/CCS14 `Adjust expectations'  
/CCS15 `Not serious'  
/CCS16 `Refuse'  
/CCS17 `Get it off my chest'  
/CCS18 `Ask relative'  
/CCS19 `Fix wrong'  
/CCS20 `Adjust own standards'  
/CCS21 `No big deal'  
/CCS22 `Try to avoid thinking'  
/CCS23 `Relax'  
/CCS24 `Talk'  
/WAS1 `Justice'  
/WAS2 `Benevolence of people'  
/WAS3 `Randomness'  
/WAS4 `Benevolence of people'  
/WAS5 `Benevolence of world'  
/WAS6 `Randomness'  
/WAS7 `Justice'  
/WAS8 `Self worth'  
/WAS9 `Benevolence of world'  
/WAS10 `Luck'  
/WAS11 `Control'  
/WAS12 `Benevolence of people'  
/WAS13 `Self control'  
/WAS14 `Justice'  
/WAS15 `Randomness'  
/WAS16 `Luck'  
/WAS17 `Self control'  
/WAS18 `Self worth'  
/WAS19 `Justice'  
/WAS20 `Control'  
/WAS21 `Luck'  
/WAS22 `Control'  
/WAS23 `Self control'



/WAS24 `Randomness'  
 /WAS25 `Benevolence of world'  
 /WAS26 `Benevolence of people'  
 /WAS27 `Self control'  
 /WAS28 `Self worth'  
 /WAS29 `Control'  
 /WAS30 `Benevolence of world'  
 /WAS31 `Self worth'  
 /WAS32 `Luck'  
 /TRAUMA `Additional Comments Field'  
 /COMMS `Additional Comments Field'  
 /BEST1 `Information'  
 /BEST2 `Intrenal Counselling'  
 /BEST3 `External Counselling'  
 /BEST4 `Supervisor Training'  
 /BEST5 `Individual Training'  
 /BEST6 `Internal Debriefing'  
 /BEST7 `External Debriefing'  
 /BEST8 `Self Help Pack'  
 /BEST9 `Specific Journal'  
 /BEST10 `Current Journals'  
 /BEST11 `Other Comment Added'

**VALUE LABELS** GENDER 0 `Female' 1 `Male'

/MARSTAT 1 `Married' 2 `Relationship' 3 `Divorced/Separated'  
 4 `Widowed' 5 `Single'

/JOB 01 `PC'  
 02 `PS'  
 03 `INSP'  
 04 `CH/INSP'  
 05 `SUPT.'  
 06 `CH/SUPT+'  
 07 `DC'  
 08 `DS'  
 09 `DI'  
 10 `DET. SUPT'  
 11 `DET CH/SUPT+'  
 12 `ADMIN ASSISTANT'  
 13 `ADMIN OFFICER'  
 14 `EXECUTIVE'  
 15 `HIGHER CIVIL'  
 16 `SENIOR CIVIL'  
 17 `TECHNICAL'  
 18 `MANAGERIAL'  
 19 `OTHERS'

**/POST CODING FOR METROPOLITAN POLICE STUDY:**

/POST 01 `Mounted'  
 02 `Firearms'  
 03 `Dogs'  
 04 `Photos'  
 05 `Robbery'  
 06 `Aliens'  
 07 `Diplomatic'  
 08 `Laboratory'  
 09 `Traffic'  
 10 `Drive Sch'  
 11 `Complaints'  
 12 `Special Branch'  
 13 `Fleet Drivers'  
 14 `1 Area Ps'

15 `2 Area Ch/Insp+'  
 16 `3 Area Insps'  
 17 `4 Area D/Insp'  
 18 `5 Area DCs'  
 19 `6 Area Pc TSG'  
 20 `7 Area Ps/Insp TSG'  
 21 `8 Area Ds'

**/POST CODING FOR MAIN STUDY:**

/FORCE 01 `Avon and Somerset'  
 02 `Bedfordshire'  
 03 `Cambridgeshire'  
 05 `Cleveland'  
 06 `Cumbria'  
 07 `Derbyshire'  
 08 `Devon and Cornwall'  
 09 `Dorset'  
 10 `Durham'  
 12 `Essex'  
 13 `Gloucestershire'  
 15 `Gwent'  
 16 `Hampshire'  
 17 `Hertfordshire'  
 18 `Humberside'  
 19 `Kent'  
 20 `Lancashire'  
 21 `Leicestershire'  
 22 `Lincolnshire'  
 24 `Merseyside'  
 25 `Norfolk'  
 26 `Northamptonshire'  
 27 `Northumbria'  
 29 `North Yorkshire'  
 30 `Nottinghamshire'  
 33 `Staffordshire'  
 35 `Surrey'  
 36 `Sussex'  
 37 `Thames Valley'  
 38 `Warwickshire'  
 39 `West Mercia'  
 40 `West Midlands'  
 41 `West Yorkshire'  
 42 `Wiltshire'  
 46 `Grampian'  
 48 `Northern'  
 49 `Strathclyde'  
 50 `Tayside'  
 51 `Royal Ulster'  
 52 `Metropolitan'

/WORK1 TO WORK10 1 `No' 2 `Hardly' 3 `Some' 4 `Often'  
 5 `Very'

/WORKEX1 TO WORKEX5 0 `Nil Comment' 1 `Comment Added'

/WORKST 0 `No' 1 `Sometimes' 2 `Often'

/DOM1 TO DOM10 1 `No' 2 `Hardly' 3 `Some'  
 4 `Often' 5 `Very'

/IES 0 `Nil Comment' 1 `Comment Added'

/IEST 0 `None' 1 `Once' 2 `Twice' 3 `Three or more times'

/INTRUDE1 TO INTRUDE7 0 `No' 1 `Rare' 2 `Some' 3 `Often'

/INTEX1 TO INTEX7 0 `No' 1 `Mild' 2 `Mod.' 3 `Severe'

/AVOID1 TO AVOID8 0 `No' 1 `Rare' 2 `Some' 3 `Often'

/AVEX1 TO AVEX8 0 `No' 1 `Mild' 2 `Mod.' 3 `Severe'  
 /PTSD1 TO PTSD17 1 `None' 2 `V/M' 3 `Mild' 4 `Mod.'  
 5 `Mod/S' 6 `S' 7 `E/S'  
 /PRIME1 TO PRIME8 1 `None' 2 `Hardly' 3 `Some' 4 `Often'  
 5 `Great'  
 /SECOND1 TO SECOND6 1 `None' 2 `Hardly' 3 `Some' 4 `Often'  
 5 `Great'  
  
 /SECEX 1 `Change' 2 `Accept' 3 `Info'  
 4 `Hold Back' 5 `Bureaucracy' 6 `Difficult'  
 /GHQ1 1 `Better' 2 `Same' 3 `Less' 4 `Much less'  
 /GHQ2 1 `Not' 2 `No more' 3 `Rather more' 4 `Much more'  
 /GHQ3 1 `More so' 2 `Same' 3 `Less useful' 4 `Much less'  
 /GHQ4 1 `Not' 2 `No more' 3 `Rather more' 4 `Much more'  
 /GHQ5 1 `More so' 2 `Same' 3 `Less' 4 `Much less capable'  
 /GHQ6 1 `Not' 2 `No more' 3 `Rather more' 4 `Much more'  
 /GHQ7 1 `More so' 2 `Same' 3 `Less able' 4 `Much less able'  
 /GHQ8 1 `Not' 2 `No more' 3 `Rather more' 4 `Much more'  
 /GHQ9 1 `More so' 2 `Same' 3 `Less so' 4 `Much less'  
 /GHQ10 1 `Not' 2 `No more' 3 `Rather more' 4 `Much more'  
 /GHQ11 1 `More so' 2 `About same' 3 `Less so' 4 `Much less'  
 /GHQ12 1 `Not' 2 `No more' 3 `Rather more' 4 `Much more'  
 /N1 TO N6 1 `Never' 2 `Seldom' 3 `Often' 4 `Always'  
 /CCL1 TO CCL24 1 `No' 2 `Seldom' 3 `Sometimes' 4 `Frequently'  
 5 `Always'  
 /WAS1 TO WAS32 1 `S/A' 2 `A/V/M' 3 `A/S' 4 `D/S'  
 5 `D/V/M' 6 `S/D'  
 /TRAUMA 0 `Nil Comment' 1 `Comment added'  
 /COMMS 0 `Nil Comment' 1 `Comment Added'  
 /BEST1 TO BEST11 0 `No' 1 `Yes'

**MISSING VALUES** AGE (0) SERVICE (0) GENDER (9) MARSTAT (9)  
 JOB (0) POST (0) INPOST (0) DEPT (0) FORCE (0) WORK1 TO WORK10 (9)  
 WORKEX1 TO WORKEX5 (9) WORKST (9) WORKOC (0)  
 DOM1 TO DOM10 (9) IES (9) IEST (9) IESOC (0) INTRUDE1 TO INTRUDE7 (9)  
 INTEX1 TO INTEX7 (9) AVOID1 TO AVOID8 (9) AVEX1 TO AVEX8 (9) PTSD1 TO  
 PTSD17 (9) PRIME1 TO PRIME8 (9) SECOND1 TO SECOND6 (9) SECEX (9) GHQ1 TO  
 GHQ12 (9) N1 TO N6 (9) CCS1 TO CCS24 (9) WAS1 TO WAS32 (9) TRAUMA (9)  
 COMMS (9) BEST1 TO BEST11 (9)

APPENDIX "F"  
 Showing The Post-Hoc (TUKEY- HSD PROCEDURE) Analyses  
 For the METPOL and MAIN U.K. Data and  
 The Multiple T-Tests For The Combined Data  
 Used In This Study.

FOR THE METPOL (N=134) DATA.

-----  
 Page 4 SPSS/PC+ 3/28/ 0

This procedure was completed at 10:41:10  
 oneway iestot by ies(0,3) /ranges=tukey /stats all.

-----  
 Page 5 SPSS/PC+ 3/28/ 0

- - - - - O N E W A Y - - - - -

Variable IESTOT  
 By Variable IES Event Elicited

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	22316.1698	7438.7233	5.6921	.0011
Within Groups	130	169890.1884	1306.8476		
Total	133	192206.3582			

-----  
 Page 6 SPSS/PC+ 3/28/ 0

- - - - - O N E W A Y - - - - -

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 0	14	17.1429	30.9636	8.2754	-.7350 To 35.0207
Grp 1	78	59.6667	35.2975	3.9967	51.7083 To 67.6250
Grp 2	27	59.5185	44.3321	8.5317	41.9813 To 77.0557
Grp 3	15	55.8000	27.2454	7.0347	40.7120 To 70.8880
Total	134	54.7612	38.0153	3.2840	48.2655 To 61.2569
		Fixed Effects Model	36.1503	3.1229	48.5829 To 60.9395
		Random Effects Model		10.1180	22.5616 To 86.9608
Random Effects Model - Estimate of Between Component Variance					229.9024

-----  
 Page 7 SPSS/PC+ 3/28/ 0

- - - - - O N E W A Y - - - - -

Group	Minimum	Maximum
Grp 0	.0000	92.0000
Grp 1	.0000	155.0000
Grp 2	.0000	145.0000
Grp 3	23.0000	113.0000
Total	.0000	155.0000

Tests for Homogeneity of Variances

Cochrans C = Max. Variance/Sum(Variiances) = .4001, P = .018 (Approx.)  
 Bartlett-Box F = 1.636, P = .179  
 Maximum Variance / Minimum Variance 2.648

----- O N E W A Y -----

Variable IESTOT  
By Variable IES Event Elicited

Multiple Range Test

Tukey-HSD Procedure  
Ranges for the .050 level -

3.68 3.68 3.68

The ranges above are table ranges.  
The value actually compared with Mean(J)-Mean(I) is..  
25.5622 \* Range \* Sqrt(1/N(I) + 1/N(J))

(\*) Denotes pairs of groups significantly different at the .050 level

----- O N E W A Y -----

Variable IESTOT  
(Continued)

		G G G G
		r r r r
		p p p p
Mean	Group	0 3 2 1
17.1429	Grp 0	
55.8000	Grp 3	*
59.5185	Grp 2	*
59.6667	Grp 1	*

This procedure was completed at 10:43:33  
oneway intrude by ies(0,3) /ranges=tukey /stats all.

----- O N E W A Y -----

Variable INTRUDE  
By Variable IES Event Elicited

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	1424.8461	474.9487	6.4329	.0004
Within Groups	130	9598.0868	73.8314		
Total	133	11022.9328			

-----  
 - - - - - O N E W A Y - - - - -

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 0	14	3.7143	6.8549	1.8320	-.2436 To 7.6722
Grp 1	78	14.6667	8.7737	.9934	12.6885 To 16.6448
Grp 2	27	12.9630	9.5735	1.8424	9.1758 To 16.7501
Grp 3	15	13.2667	6.9536	1.7954	9.4159 To 17.1174
Total	134	13.0224	9.1038	.7864	11.4668 To 14.5780
Fixed Effects Model			8.5925	.7423	11.5539 To 14.4909
Random Effects Model				2.5710	4.8406 To 21.2042
Random Effects Model - Estimate of Between Component Variance					15.0391

-----  
 - - - - - O N E W A Y - - - - -

Group	Minimum	Maximum
Grp 0	.0000	21.0000
Grp 1	.0000	33.0000
Grp 2	.0000	31.0000
Grp 3	3.0000	26.0000
Total	.0000	33.0000

Tests for Homogeneity of Variances

Cochrans C = Max. Variance/Sum(Variiances) = .3472, P = .162 (Approx.)  
 Bartlett-Box F = .967, P = .407  
 Maximum Variance / Minimum Variance 1.951

-----  
 - - - - - O N E W A Y - - - - -

Variable INTRUDE  
 By Variable IES Event Elicited

Multiple Range Test

Tukey-HSD Procedure  
 Ranges for the .050 level -

3.68 3.68 3.68

The ranges above are table ranges.  
 The value actually compared with Mean(J)-Mean(I) is..  
 $6.0758 * \text{Range} * \sqrt{1/N(I) + 1/N(J)}$

(\*) Denotes pairs of groups significantly different at the .050 level

----- O N E W A Y -----

Variable INTRUDE  
(Continued)

Mean	Group	0	2	3	1
3.7143	Grp 0				
12.9630	Grp 2	*			
13.2667	Grp 3	*			
14.6667	Grp 1	*			

This procedure was completed at 10:44:57  
oneway index by ies (0,3) /ranges=tukey /stats all.

----- O N E W A Y -----

Variable INTEX  
By Variable IES Event Elicited

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	927.2961	309.0987	3.9585	.0097
Within Groups	130	10150.9128	78.0839		
Total	133	11078.2090			

----- O N E W A Y -----

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int	for Mean
Grp 0	14	4.0000	7.3902	1.9751	-.2670 To	8.2670
Grp 1	78	12.7692	9.0911	1.0294	10.7195 To	14.8189
Grp 2	27	12.1111	9.6887	1.8646	8.2784 To	15.9439
Grp 3	15	12.2000	6.7422	1.7408	8.4663 To	15.9337
Total	134	11.6567	9.1266	.7884	10.0973 To	13.2162
Fixed Effects Model			8.8365	.7634	10.1465 To	13.1669
Random Effects Model				2.0180	5.2347 To	18.0787
Random Effects Model - Estimate of Between Component Variance						8.6614

----- O N E W A Y -----

Group	Minimum	Maximum
Grp 0	.0000	21.0000
Grp 1	.0000	35.0000
Grp 2	.0000	33.0000
Grp 3	2.0000	27.0000
Total	.0000	35.0000

Tests for Homogeneity of Variances

Cochrans C = Max. Variance/Sum(Variances) = .3394, P = .213 (Approx.)  
 Bartlett-Box F = .999, P = .392  
 Maximum Variance / Minimum Variance 2.065

-----  
 Page 20 SPSS/PC+ 3/28/ 0

----- O N E W A Y -----

Variable INTEX  
 By Variable IES Event Elicited

Multiple Range Test

Tukey-HSD Procedure  
 Ranges for the .050 level -

3.68 3.68 3.68

The ranges above are table ranges.  
 The value actually compared with Mean(J)-Mean(I) is..  
 6.2484 \* Range \* Sqrt(1/N(I) + 1/N(J))

(\*) Denotes pairs of groups significantly different at the .050 level

-----  
 Page 21 SPSS/PC+ 3/28/ 0

----- O N E W A Y -----

Variable INTEX  
 (Continued)

		G G G G
		r r r r
		P P P P
Mean	Group	0 2 3 1
4.0000	Grp 0	
12.1111	Grp 2	*
12.2000	Grp 3	
12.7692	Grp 1	*

-----  
 Page 22 SPSS/PC+ 3/28/ 0

This procedure was completed at 10:57:15  
 oneway avoid by ies(0,3) /ranges=tukey /stats all.

-----  
 Page 23 SPSS/PC+ 3/28/ 0

----- O N E W A Y -----

Variable AVOID  
 By Variable IES Event Elicited

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	857.3733	285.7911	4.6015	.0043
Within Groups	130	8074.1490	62.1088		
Total	133	8931.5224			



-----  
- - - - - O N E W A Y - - - - -

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean		
Grp 0	14	2.6429	4.6178	1.2342	-.0234	To	5.3091
Grp 1	78	10.5769	7.4529	.8439	8.8966	To	12.2573
Grp 2	27	11.6296	10.4445	2.0101	7.4979	To	15.7614
Grp 3	15	10.4000	6.9877	1.8042	6.5303	To	14.2697
Total	134	9.9403	8.1948	.7079	8.5401	To	11.3405
		Fixed Effects Model	7.8809	.6808	8.5934	To	11.2872
		Random Effects Model		1.9602	3.7023	To	16.1783
Random Effects Model - Estimate of Between Component Variance							8.3865

-----  
- - - - - O N E W A Y - - - - -

Group	Minimum	Maximum
Grp 0	.0000	15.0000
Grp 1	.0000	35.0000
Grp 2	.0000	36.0000
Grp 3	.0000	22.0000
Total	.0000	36.0000

Tests for Homogeneity of Variances

Cochrans C = Max. Variance/Sum(Variiances) = .4646, P = .001 (Approx.)  
 Bartlett-Box F = 3.664, P = .012  
 Maximum Variance / Minimum Variance 5.116

-----  
- - - - - O N E W A Y - - - - -

Variable AVOID  
 By Variable IES Event Elicited

Multiple Range Test

Tukey-HSD Procedure  
 Ranges for the .050 level -

3.68 3.68 3.68

The ranges above are table ranges.

The value actually compared with Mean(J)-Mean(I) is..  
 $5.5726 * \text{Range} * \text{Sqrt}(1/N(I) + 1/N(J))$

(\*) Denotes pairs of groups significantly different at the .050 level

----- O N E W A Y -----

Variable AVOID  
(Continued)

Mean	Group	
		G G G G
		r r r r
		P P P P
		0 3 1 2
2.6429	Grp 0	
10.4000	Grp 3	*
10.5769	Grp 1	*
11.6296	Grp 2	*

This procedure was completed at 10:59:06  
oneway avex by ies(0,3) /ranges=tukey /stats all.

----- O N E W A Y -----

Variable AVEX  
By Variable IES Event Elicited

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	555.8767	185.2922	3.0947	.0293
Within Groups	130	7783.5935	59.8738		
Total	133	8339.4701			

----- O N E W A Y -----

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean		
Grp 0	14	3.1429	6.4433	1.7221	-.5774	To	6.8631
Grp 1	78	8.7436	7.1486	.8094	7.1318	To	10.3553
Grp 2	27	10.8148	10.4441	2.0100	6.6833	To	14.9464
Grp 3	15	7.9333	5.8121	1.5007	4.7147	To	11.1520
Total	134	8.4851	7.9185	.6841	7.1320	To	9.8381
		Fixed Effects Model	7.7378	.6684	7.1626	To	9.8075
		Random Effects Model		1.5301	3.6156	To	13.3545
Random Effects Model - Estimate of Between Component Variance							4.7023

----- O N E W A Y -----

Group	Minimum	Maximum
Grp 0	.0000	21.0000
Grp 1	.0000	35.0000
Grp 2	.0000	38.0000
Grp 3	.0000	18.0000
Total	.0000	38.0000

Tests for Homogeneity of Variances

Cochrans C = Max. Variance/Sum(Variances) = .4632, P = .001 (Approx.)  
 Bartlett-Box F = 3.061 , P = .027  
 Maximum Variance / Minimum Variance 3.229

-----  
 Page 32 SPSS/PC+ 3/28/ 0

- - - - - O N E W A Y - - - - -

Variable AVEX  
 By Variable IES Event Elicited

Multiple Range Test

Tukey-HSD Procedure  
 Ranges for the .050 level -

3.68 3.68 3.68

The ranges above are table ranges.  
 The value actually compared with Mean(J)-Mean(I) is..  
 $5.4715 * \text{Range} * \text{Sqrt}(1/N(I) + 1/N(J))$

(\*) Denotes pairs of groups significantly different at the .050 level

-----  
 Page 33 SPSS/PC+ 3/28/ 0

- - - - - O N E W A Y - - - - -

Variable AVEX  
 (Continued)

		G G G G
		r r r r
		p p p p
Mean	Group	0 3 1 2
3.1429	Grp 0	
7.9333	Grp 3	
8.7436	Grp 1	
10.8148	Grp 2	*

-----  
 Page 34 SPSS/PC+ 3/28/ 0

This procedure was completed at 11:06:47

FOR THE MAIN U.K. (N=528) DATA.

-----  
Page 4 SPSS/PC+ 3/28/ 0

This procedure was completed at 12:24:57  
oneway /vars intrude by ies(0,3) /ranges=tukey /stats all.

-----  
Page 5 SPSS/PC+ 3/28/ 0

----- O N E W A Y -----

Variable INTRUDE  
By Variable IES Event Elicited

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	8648.4760	2882.8253	38.6693	.0000
Within Groups	524	39064.6433	74.5508		
Total	527	47713.1193			

-----  
Page 6 SPSS/PC+ 3/28/ 0

----- O N E W A Y -----

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean		
Grp 0	50	1.2600	4.5840	.6483	-.0427	To	2.5627
Grp 1	342	13.9678	9.0833	.4912	13.0017	To	14.9339
Grp 2	74	14.8919	8.7124	1.0128	12.8734	To	16.9104
Grp 3	62	17.4355	8.4536	1.0736	15.2887	To	19.5823
Total	528	13.3011	9.5151	.4141	12.4877	To	14.1146
Fixed Effects Model			8.6343	.3758	12.5630	To	14.0393
Random Effects Model				3.7203	1.4617	To	25.1405
Random Effects Model - Estimate of Between Component Variance							29.6554

-----  
Page 7 SPSS/PC+ 3/28/ 0

----- O N E W A Y -----

Group	Minimum	Maximum
Grp 0	.0000	23.0000
Grp 1	.0000	35.0000
Grp 2	.0000	35.0000
Grp 3	.0000	35.0000
Total	.0000	35.0000

Tests for Homogeneity of Variances

Cochrans C = Max. Variance/Sum(Variiances) = .3289, P = .010 (Approx.)  
Bartlett-Box F = 9.528, P = .000  
Maximum Variance / Minimum Variance 3.927

----- O N E W A Y -----

Variable INTRUDE  
By Variable IES Event Elicited

Multiple Range Test

Tukey-HSD Procedure  
Ranges for the .050 level -

3.65 3.65 3.65

The ranges above are table ranges.  
The value actually compared with Mean(J)-Mean(I) is..  
6.1054 \* Range \* Sqrt(1/N(I) + 1/N(J))

(\*) Denotes pairs of groups significantly different at the .050 level

----- O N E W A Y -----

Variable INTRUDE  
(Continued)

		G G G G
		r r r r
		p p p p
Mean	Group	0 1 2 3
1.2600	Grp 0	
13.9678	Grp 1	*
14.8919	Grp 2	*
17.4355	Grp 3	* *

This procedure was completed at 12:25:53  
oneway /vars intex by ies(0,3) /ranges=tukey /stats all.

----- O N E W A Y -----

Variable INTEX  
By Variable IES Event Elicited

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	7256.7089	2418.9030	32.8937	.0000
Within Groups	524	38533.4104	73.5370		
Total	527	45790.1193			

-----  
 - - - - - O N E W A Y - - - - -

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean	
Grp 0	50	1.0000	3.7958	.5368	-.0788	To 2.0788
Grp 1	342	12.6608	9.0471	.4892	11.6986	To 13.6231
Grp 2	74	13.9189	8.8174	1.0250	11.8761	To 15.9617
Grp 3	62	15.5645	8.3384	1.0590	13.4470	To 17.6821
Total	528	12.0739	9.3214	.4057	11.2770	To 12.8708
		Fixed Effects Model	8.5754	.3732	11.3407	To 12.8070
		Random Effects Model		3.4030	1.2442	To 22.9036

Random Effects Model - Estimate of Between Component Variance 24.7671

-----  
 - - - - - O N E W A Y - - - - -

Group	Minimum	Maximum
Grp 0	.0000	23.0000
Grp 1	.0000	35.0000
Grp 2	.0000	35.0000
Grp 3	.0000	35.0000
Total	.0000	35.0000

Tests for Homogeneity of Variances

Cochrans C = Max. Variance/Sum(Variances) = .3361, P = .005 (Approx.)  
 Bartlett-Box F = 14.158, P = .000  
 Maximum Variance / Minimum Variance 5.681

-----  
 - - - - - O N E W A Y - - - - -

Variable INTEX  
 By Variable IES Event Elicited

Multiple Range Test

Tukey-HSD Procedure  
 Ranges for the .050 level -

3.65 3.65 3.65

The ranges above are table ranges.  
 The value actually compared with Mean(J)-Mean(I) is..  
 $6.0637 * \text{Range} * \sqrt{1/N(I) + 1/N(J)}$

(\*) Denotes pairs of groups significantly different at the .050 level

----- ONEWAY -----

Variable INTEX  
(Continued)

Mean	Group	0	1	2	3
1.0000	Grp 0				
12.6608	Grp 1	*			
13.9189	Grp 2	*			
15.5645	Grp 3	*			

This procedure was completed at 12:26:53  
oneway /vars avoid by ies(0,3) /ranges=tukey /stats all.

----- ONEWAY -----

Variable AVOID  
By Variable IES Event Elicited

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	4699.8406	1566.6135	21.9186	.0000
Within Groups	524	37452.4018	71.4740		
Total	527	42152.2424			

----- ONEWAY -----

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int	for Mean
Grp 0	50	.9000	2.8732	.4063	.0835	To 1.7165
Grp 1	342	10.6930	8.7799	.4748	9.7591	To 11.6268
Grp 2	74	9.9459	9.0990	1.0577	7.8379	To 12.0540
Grp 3	62	12.5484	8.7940	1.1168	10.3151	To 14.7816
Total	528	9.8788	8.9434	.3892	9.1142	To 10.6434
Fixed Effects Model			8.4542	.3679	9.1560	To 10.6016
Random Effects Model				2.7256	1.2048	To 18.5528
Random Effects Model - Estimate of Between Component Variance					.15.7887	

----- ONEWAY -----

Group	Minimum	Maximum
Grp 0	.0000	14.0000
Grp 1	.0000	40.0000
Grp 2	.0000	40.0000
Grp 3	.0000	34.0000
Total	.0000	40.0000

Tests for Homogeneity of Variances

Cochrans C = Max. Variance/Sum(Variances) = .3373, F = .004 (Approx.)  
 Bartlett-Box F = 21.369, P = .000  
 Maximum Variance / Minimum Variance 10.029

-----  
 Page 20 SPSS/PC+ 3/28/ 0

----- O N E W A Y -----

Variable AVOID  
 By Variable IES Event Elicited

Multiple Range Test

Tukey-HSD Procedure  
 Ranges for the .050 level -

3.65 3.65 3.65

The ranges above are table ranges.  
 The value actually compared with Mean(J)-Mean(I) is..  
 5.9780 \* Range \* Sqrt(1/N(I) + 1/N(J))

(\*) Denotes pairs of groups significantly different at the .050 level

-----  
 Page 21 SPSS/PC+ 3/28/ 0

----- O N E W A Y -----

Variable AVOID  
 (Continued)

		G G G G
		r r r r
		P P P P
Mean	Group	0 2 1 3
.9000	Grp 0	
9.9459	Grp 2	*
10.6930	Grp 1	*
12.5484	Grp 3	*

-----  
 Page 22 SPSS/PC+ 3/28/ 0

This procedure was completed at 12:27:26  
 oneway /vars avex by ies(0,3) /ranges=tukey /stats all.

-----  
 Page 23 SPSS/PC+ 3/28/ 0

----- O N E W A Y -----

Variable AVEX  
 By Variable IES Event Elicited

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	3872.2245	1290.7415	17.7393	.0000
Within Groups	524	38127.1827	72.7618		
Total	527	41999.4072			



-----  
 - - - - - O N E W A Y - - - - -

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean	
Grp 0	50	.6200	2.0293	.2870	.0433	To 1.1967
Grp 1	342	9.1404	8.8283	.4774	8.2014	To 10.0793
Grp 2	74	9.0270	8.6878	1.0099	7.0142	To 11.0398
Grp 3	62	11.6452	9.7831	1.2424	9.1607	To 14.1296
Total	528	8.6117	8.9272	.3885	7.8485	To 9.3750
		Fixed Effects Model	8.5301	.3712	7.8825	To 9.3410
		Random Effects Model		2.4656	.7651	To 16.4584
Random Effects Model - Estimate of Between Component Variance						12.8619

-----  
 - - - - - O N E W A Y - - - - -

Group	Minimum	Maximum
Grp 0	.0000	9.0000
Grp 1	.0000	40.0000
Grp 2	.0000	40.0000
Grp 3	.0000	35.0000
Total	.0000	40.0000

Tests for Homogeneity of Variances

Cochrans C = Max. Variance/Sum(Variiances) = .3779, P = .000 (Approx.)  
 Bartlett-Box F = 32.462, P = .000  
 Maximum Variance / Minimum Variance 23.242

-----  
 - - - - - O N E W A Y - - - - -

Variable AVEX  
 By Variable IES Event Elicited

Multiple Range Test

Tukey-HSD Procedure  
 Ranges for the .050 level -  
 3.65 3.65 3.65

The ranges above are table ranges.  
 The value actually compared with Mean(J)-Mean(I) is..  
 $6.0317 * \text{Range} * \text{Sqrt}(1/N(I) + 1/N(J))$

(\*) Denotes pairs of groups significantly different at the .050 level

----- O N E W A Y -----

Variable AVEX  
(Continued)

		G G G G
		r r r r
		p p p p
Mean	Group	0 2 1 3
.6200	Grp 0	
9.0270	Grp 2	*
9.1404	Grp 1	*
11.6452	Grp 3	*

This procedure was completed at 12:27:39  
oneway /vars naфф by ies(0,3) /ranges=tukey /stats all.

----- O N E W A Y -----

Variable NAFF  
By Variable IES Event Elicited

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	249.1411	83.0470	6.8782	.0002
Within Groups	523	6314.6691	12.0739		
Total	526	6563.8102			

----- O N E W A Y -----

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int	for Mean
Grp 0	49	10.2857	3.1292	.4470	9.3869 To	11.1845
Grp 1	342	11.8216	3.5296	.1909	11.4462 To	12.1970
Grp 2	74	12.4324	3.2269	.3751	11.6848 To	13.1801
Grp 3	62	13.1613	3.7029	.4703	12.2209 To	14.1016
Total	527	11.9222	3.5325	.1539	11.6199 To	12.2245
Fixed Effects Model			3.4748	.1514	11.6248 To	12.2196
Random Effects Model				.6097	9.9819 To	13.8625
Random Effects Model - Estimate of Between Component Variance						.7529

----- O N E W A Y -----

Group	Minimum	Maximum
Grp 0	6.0000	18.0000
Grp 1	6.0000	21.0000
Grp 2	7.0000	21.0000
Grp 3	6.0000	20.0000
Total	6.0000	21.0000

Tests for Homogeneity of Variances

Cochrans C = Max. Variance/Sum(Variances) = .2957, P = .190 (Approx.)  
 Bartlett-Box F = .805, P = .491  
 Maximum Variance / Minimum Variance 1.400

-----  
 Page 32 SPSS/PC+ 3/28/ 0

----- O N E W A Y -----

Variable NAFF  
 By Variable IES Event Elicited

Multiple Range Test

Tukey-HSD Procedure  
 Ranges for the .050 level -

3.65 3.65 3.65

The ranges above are table ranges.  
 The value actually compared with Mean(J)-Mean(I) is..  
 $2.4570 * \text{Range} * \sqrt{1/N(I) + 1/N(J)}$

(\*) Denotes pairs of groups significantly different at the .050 level

-----  
 Page 33 SPSS/PC+ 3/28/ 0

----- O N E W A Y -----

Variable NAFF  
 (Continued)

Mean	Group	0	1	2	3
10.2857	Grp 0				
11.8216	Grp 1		*		
12.4324	Grp 2		*		
13.1613	Grp 3		*	*	

-----  
 Page 34 SPSS/PC+ 3/28/ 0

This procedure was completed at 12:28:14  
 oneway /vars random by ies(0,3) /ranges=tukey /stats all.

-----  
 Page 35 SPSS/PC+ 3/28/ 0

----- O N E W A Y -----

Variable RANDOM  
 By Variable IES Event Elicited

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	109.4229	36.4743	2.9881	.0307
Within Groups	519	6335.1163	12.2064		
Total	522	6444.5392			

-----  
 - - - - - O N E W A Y - - - - -

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean	
Grp 0	49	13.0612	3.8265	.5466	11.9621 To	14.1603
Grp 1	338	12.6598	3.6076	.1962	12.2738 To	13.0457
Grp 2	74	12.2027	3.0654	.3563	11.4925 To	12.9129
Grp 3	62	11.3710	3.0312	.3850	10.6012 To	12.1407
Total	523	12.4799	3.5137	.1536	12.1781 To	12.7818
Fixed Effects Model			3.4938	.1528	12.1798 To	12.7801
Random Effects Model				.3771	11.2800 To	13.6799
Random Effects Model - Estimate of Between Component Variance						.2580

-----  
 - - - - - O N E W A Y - - - - -

Group	Minimum	Maximum
Grp 0	4.0000	24.0000
Grp 1	4.0000	24.0000
Grp 2	5.0000	19.0000
Grp 3	4.0000	19.0000
Total	4.0000	24.0000

Tests for Homogeneity of Variances

Cochrans C = Max. Variance/Sum(Variances) = .3166, P = .034 (Approx.)  
 Bartlett-Box F = 2.018, P = .109  
 Maximum Variance / Minimum Variance 1.594

-----  
 - - - - - O N E W A Y - - - - -

Variable RANDOM  
 By Variable IES Event Elicited

Multiple Range Test

Tukey-HSD Procedure  
 Ranges for the .050 level -

3.65 3.65 3.65

The ranges above are table ranges.  
 The value actually compared with Mean(J)-Mean(I) is..  
 $2.4705 * \text{Range} * \text{Sqrt}(1/N(I) + 1/N(J))$

(\*) Denotes pairs of groups significantly different at the .050 level

-----  
- - - - - O N E W A Y - - - - -

Variable RANDOM  
(Continued)

		G G G G
		r r r r
		p p p p
Mean	Group	3 2 1 0
11.3710	Grp 3	
12.2027	Grp 2	
12.6598	Grp 1	*
13.0612	Grp 0	

This procedure was completed at 12:28:44

**MULTIPLE T-TESTS FOR THE COMBINED  
METPOL AND MAIN U.K. DATA**

-----  
Page 2 SPSS/PC+ 4/9/ 0

This procedure was completed at 7:05:55  
 recode ghq1 to ghq12 (0,1=0) (2,3=1).  
 compute ghqtot=(ghq1+ghq2+ghq3+ghq4+ghq5+ghq6+ghq7+ghq8+  
 ghq9+ghq10+ghq11+ghq12).  
 join add /file '\*' /file `kypol2.sys'.  
 The raw data or transformation pass is proceeding  
 134 cases are written to the uncompressed active file.

-----  
Page 3 SPSS/PC+ 4/9/ 0

This procedure was completed at 7:06:28  
 compute MAINUK=0.  
 if (sysmis(ptsd1)) MAINUK=1.  
 fre /var MAINUK.  
 The raw data or transformation pass is proceeding  
 662 cases are written to the uncompressed active file.

\*\*\*\*\* Memory allows a total of 13267 Values, accumulated across all Variables.  
 There also may be up to 1658 Value Labels for each Variable.

-----  
Page 4 SPSS/PC+ 4/9/ 0

MAINUK

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	.00	134	20.2	20.2	20.2
	1.00	528	79.8	79.8	100.0
	TOTAL	662	100.0	100.0	

Valid Cases 662 Missing Cases 0

-----  
Page 5 SPSS/PC+ 4/9/ 0

This procedure was completed at 7:06:51  
 t-test /groups MAINUK (0,1) /vars ghqtot.

-----  
Page 6 SPSS/PC+ 4/9/ 0

Independent samples of MAINUK

Group 1: MAINUK EQ .00 Group 2: MAINUK EQ 1.00

t-test for: GHQTOT

	Number of Cases	Mean	Standard Deviation	Standard Error
Group 1	134	2.4478	3.145	.272
Group 2	524	11.8702	5.714	.250

  

		Pooled Variance Estimate		Separate Variance Estimate	
F	2-Tail Prob.	t	Degrees of Freedom	t	Degrees of Freedom
3.30	.000	-18.38	656	-25.54	383.01

-----  
Page 7 SPSS/PC+ 4/9/ 0

This procedure was completed at 7:07:05  
 T-TEST /groups MAINUK (0,1) /vars IES WORK INTRUDE INTEX AVOID AVEX  
 NEALIES IESTOT PRIME SECOND GHQTOT NAFF CHANGE ACCOM DEVAL CAVOID  
 REDUCE SUPPORT CCSTOT BENWOR BENPEP JUSTICE CONTROL RANDOM WORTH  
 SELFCON LUCK WASTOT.

Independent samples of MAINUK

Group 1: MAINUK EQ .00                      Group 2: MAINUK EQ 1.00

t-test for: IES                      Event Elicited

	Number of Cases	Mean	Standard Deviation	Standard Error
Group 1	134	1.3209	.810	.070
Group 2	528	1.2803	.792	.034

  

	Pooled Variance Estimate			Separate Variance Estimate			
F Value	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.
1.05	.725	.53	660	.598	.52	202.40	.603

Independent samples of MAINUK

Group 1: MAI EQ .00                      Group 2: MAI EQ 1.00

t-test for: WORK

	Number of Cases	Mean	Standard Deviation	Standard Error
Group 1	134	27.1567	9.649	.834
Group 2	528	30.1761	7.087	.308

  

	Pooled Variance Estimate			Separate Variance Estimate			
F Value	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.
1.85	.000	-4.07	660	.000	-3.40	171.10	.001

Independent samples of MAINUK

Group 1: MAIN EQ .00                      Group 2: MAIN EQ 1.00

t-test for: INTRUDE

	Number of Cases	Mean	Standard Deviation	Standard Error
Group 1	134	13.0224	9.104	.786
Group 2	528	13.3011	9.515	.414

  

	Pooled Variance Estimate			Separate Variance Estimate			
F Value	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.
1.09	.542	-.31	660	.760	-.31	212.84	.754

Independent samples of MAINUK

Group 1: MAINUK EQ .00 Group 2: MAINUK EQ 1.00

t-test for: INTEX

	Number of Cases	Mean	Standard Deviation	Standard Error
Group 1	134	11.6567	9.127	.788
Group 2	528	12.0739	9.321	.406

  

		Pooled Variance Estimate			Separate Variance Estimate		
F Value	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.
1.04	.780	-.46	660	.642	-.47	209.04	.639

Independent samples of MAINUK

Group 1: MAINU EQ .00 Group 2: MAINU EQ 1.00

t-test for: AVOID

	Number of Cases	Mean	Standard Deviation	Standard Error
Group 1	134	9.9403	8.195	.708
Group 2	528	9.8788	8.943	.389

  

		Pooled Variance Estimate			Separate Variance Estimate		
F Value	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.
1.19	.221	.07	660	.942	.08	220.47	.939

Independent samples of MAINUK

Group 1: MAINU EQ .00 Group 2: MAINU EQ 1.00

t-test for: AVEX

	Number of Cases	Mean	Standard Deviation	Standard Error
Group 1	134	8.4851	7.919	.684
Group 2	528	8.6117	8.927	.389

  

		Pooled Variance Estimate			Separate Variance Estimate		
F Value	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.
1.27	.094	-.15	660	.881	-.16	226.69	.872



Independent samples of MAINUK

Group 1: MAIN EQ .00 Group 2: MAIN EQ 1.00

t-test for: NEALIES

	Number of Cases	Mean	Standard Deviation	Standard Error
Group 1	134	22.9627	15.317	1.323
Group 2	528	23.1799	16.809	.732

  

		Pooled Variance Estimate			Separate Variance Estimate		
F Value	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.
1.20	.193	-.14	660	.892	-.14	221.50	.886

Independent samples of MAINUK

Group 1: MAINUK EQ .00 Group 2: MAINUK EQ 1.00

t-test for: IESTOT

	Number of Cases	Mean	Standard Deviation	Standard Error
Group 1	134	54.7612	38.015	3.284
Group 2	528	55.9394	41.567	1.809

  

		Pooled Variance Estimate			Separate Variance Estimate		
F Value	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.
1.20	.211	-.30	660	.766	-.31	220.83	.754

Independent samples of MAINUK

Group 1: MAINUK EQ .00 Group 2: MAINUK EQ 1.00

t-test for: PRIME

	Number of Cases	Mean	Standard Deviation	Standard Error
Group 1	128	16.7891	7.932	.701
Group 2	496	17.9375	8.502	.382

  

		Pooled Variance Estimate			Separate Variance Estimate		
F Value	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.
1.15	.346	-1.38	622	.168	-1.44	208.75	.152

Independent samples of MAINUK

Group 1: MAINU EQ .00                      Group 2: MAINU EQ 1.00

t-test for: SECOND

	Number of Cases	Mean	Standard Deviation	Standard Error
Group 1	127	14.6063	5.521	.490
Group 2	488	15.0615	4.990	.226

  

		Pooled Variance Estimate			Separate Variance Estimate		
F Value	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.
1.22	.138	-.90	613	.371	-.84	183.13	.400

Independent samples of MAINUK

Group 1: MAINUK EQ .00                      Group 2: MAINUK EQ 1.00

t-test for: GHQTOT

	Number of Cases	Mean	Standard Deviation	Standard Error
Group 1	134	2.4478	3.145	.272
Group 2	524	11.8702	5.714	.250

  

		Pooled Variance Estimate			Separate Variance Estimate		
F Value	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.
3.30	.000	-18.38	656	.000	-25.54	383.01	.000

Independent samples of MAINUK

Group 1: MAINUK EQ .00                      Group 2: MAINUK EQ 1.00

t-test for: NAFF

	Number of Cases	Mean	Standard Deviation	Standard Error
Group 1	134	11.3582	3.182	.275
Group 2	527	11.9222	3.533	.154

  

		Pooled Variance Estimate			Separate Variance Estimate		
F Value	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.
1.23	.144	-1.68	659	.093	-1.79	223.85	.075

Independent samples of MAINUK

Group 1: MAIN EQ .00 Group 2: MAIN EQ 1.00

t-test for: CHANGE

	Number of Cases	Mean	Standard Deviation	Standard Error
Group 1	131	11.7176	3.064	.268
Group 2	514	11.7743	3.371	.149

  

		Pooled Variance Estimate			Separate Variance Estimate		
F Value	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.
1.21	.187	-.18	643	.861	-.19	217.34	.853

Independent samples of MAINUK

Group 1: MAINUK EQ .00 Group 2: MAINUK EQ 1.00

t-test for: ACCOM

	Number of Cases	Mean	Standard Deviation	Standard Error
Group 1	130	9.8231	2.729	.239
Group 2	514	9.9377	2.816	.124

  

		Pooled Variance Estimate			Separate Variance Estimate		
F Value	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.
1.06	.676	-.42	642	.677	-.43	204.10	.671

Independent samples of MAINUK

Group 1: MAINU EQ .00 Group 2: MAINU EQ 1.00

t-test for: DEVAL

	Number of Cases	Mean	Standard Deviation	Standard Error
Group 1	130	9.0846	3.692	.324
Group 2	518	9.4228	3.610	.159

  

		Pooled Variance Estimate			Separate Variance Estimate		
F Value	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.
1.05	.727	-.95	646	.342	-.94	195.54	.349

Independent samples of MAINUK

Group 1: MAINU EQ .00                      Group 2: MAINU EQ 1.00

t-test for: CAVOID

	Number of Cases	Mean	Standard Deviation	Standard Error
Group 1	131	8.2748	3.383	.296
Group 2	517	8.6944	3.429	.151

  

		Pooled Variance Estimate			Separate Variance Estimate		
F Value	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.
1.03	.870	-1.25	646	.210	-1.26	202.99	.208

Independent samples of MAINUK

Group 1: MAINUK EQ .00                      Group 2: MAINUK EQ 1.00

t-test for: REDUCE

	Number of Cases	Mean	Standard Deviation	Standard Error
Group 1	131	11.8397	3.594	.314
Group 2	517	12.6015	3.275	.144

  

		Pooled Variance Estimate			Separate Variance Estimate		
F Value	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.
1.20	.164	-2.33	646	.020	-2.21	188.34	.029

Independent samples of MAINUK

Group 1: MAINUK EQ .00                      Group 2: MAINUK EQ 1.00

t-test for: SUPPORT

	Number of Cases	Mean	Standard Deviation	Standard Error
Group 1	131	11.8015	3.822	.334
Group 2	518	12.1564	3.788	.166

  

		Pooled Variance Estimate			Separate Variance Estimate		
F Value	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.
1.02	.876	-.96	647	.339	-.95	199.52	.343

Independent samples of MAINUK

Group 1: MAINUK EQ .00                      Group 2: MAINUK EQ 1.00

t-test for: CCSTOT

	Number of Cases	Mean	Standard Deviation	Standard Error
Group 1	129	62.3798	13.746	1.210
Group 2	508	64.5630	12.352	.548

  

		Pooled Variance Estimate			Separate Variance Estimate		
F Value	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.
1.24	.113	-1.75	635	.080	-1.64	183.93	.102

Independent samples of MAINUK

Group 1: MAINUK EQ .00                      Group 2: MAINUK EQ 1.00

t-test for: BENWOR

	Number of Cases	Mean	Standard Deviation	Standard Error
Group 1	133	12.1128	3.779	.328
Group 2	522	11.5057	3.636	.159

  

		Pooled Variance Estimate			Separate Variance Estimate		
F Value	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.
1.08	.553	1.71	653	.089	1.67	198.79	.097

Independent samples of MAINUK

Group 1: MAINUK EQ .00                      Group 2: MAINUK EQ 1.00

t-test for: BENPEP

	Number of Cases	Mean	Standard Deviation	Standard Error
Group 1	133	11.3835	3.516	.305
Group 2	521	10.8196	3.306	.145

  

		Pooled Variance Estimate			Separate Variance Estimate		
F Value	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.
1.13	.354	1.73	652	.084	1.67	195.81	.096

Independent samples of MAINUK

Group 1: MAINUK EQ .00 Group 2: MAINUK EQ 1.00

t-test for: JUSTICE

	Number of Cases	Mean	Standard Deviation	Standard Error
Group 1	132	16.1136	3.934	.342
Group 2	522	16.3027	3.454	.151

  

		Pooled Variance Estimate			Separate Variance Estimate		
F Value	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.
1.30	.051	-.55	652	.585	-.51	185.29	.614

Independent samples of MAINUK

Group 1: MAINUK EQ .00 Group 2: MAINUK EQ 1.00

t-test for: CONTROL

	Number of Cases	Mean	Standard Deviation	Standard Error
Group 1	133	14.3985	3.834	.332
Group 2	524	14.4618	3.337	.146

  

		Pooled Variance Estimate			Separate Variance Estimate		
F Value	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.
1.32	.036	-.19	655	.850	-.17	185.90	.862

Independent samples of MAINUK

Group 1: MAINUK EQ .00 Group 2: MAINUK EQ 1.00

t-test for: RANDOM

	Number of Cases	Mean	Standard Deviation	Standard Error
Group 1	131	12.3359	3.706	.324
Group 2	523	12.4799	3.514	.154

  

		Pooled Variance Estimate			Separate Variance Estimate		
F Value	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.
1.11	.422	-.41	652	.678	-.40	192.71	.688

Independent samples of MAINUK

Group 1: MAINUK EQ .00                      Group 2: MAINUK EQ 1.00

t-test for: WORTH

	Number of Cases	Mean	Standard Deviation	Standard Error
Group 1	133	9.1278	3.621	.314
Group 2	522	9.3602	4.030	.176

  

		Pooled Variance Estimate			Separate Variance Estimate		
F Value	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.
1.24	.136	-.61	653	.545	-.65	222.85	.520

Independent samples of MAINUK

Group 1: MAINU EQ .00                      Group 2: MAINU EQ 1.00

t-test for: SELFCON

	Number of Cases	Mean	Standard Deviation	Standard Error
Group 1	131	10.3893	2.960	.259
Group 2	523	10.3786	2.637	.115

  

		Pooled Variance Estimate			Separate Variance Estimate		
F Value	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.
1.26	.083	.04	652	.968	.04	184.98	.970

Independent samples of MAINUK

Group 1: MAINUK EQ .00                      Group 2: MAINUK EQ 1.00

t-test for: LUCK

	Number of Cases	Mean	Standard Deviation	Standard Error
Group 1	132	12.5000	4.022	.350
Group 2	522	12.6169	3.929	.172

  

		Pooled Variance Estimate			Separate Variance Estimate		
F Value	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.
1.05	.713	-.30	652	.761	-.30	198.93	.765

Independent samples of MAINUK

Group 1: MAIN EQ .00 Group 2: MAIN EQ 1.00

t-test for: WASTOT

	Number of Cases	Mean	Standard Deviation	Standard Error
Group 1	127	98.0472	15.175	1.347
Group 2	506	97.8557	14.669	.652

		<sup>3</sup> Pooled Variance Estimate			<sup>3</sup> Separate Variance Estimate		
F Value	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.	t Value	Degrees of Freedom	2-Tail Prob.
1.07	.608	.13	631	.896	.13	189.44	.898

This procedure was completed at 7:07:50