

Victims of crime: The experience of criminal justice activities

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Abstract

The present study investigated the severity and intensity of peritraumatic responses of individuals during criminal victimisation and while engaging in a police interview and court testimony. Of particular interest were the different aspects of these criminal justice events that might contribute to their stressful nature. A personalised, staged guided imagery methodology was employed to assess the peritraumatic psychological and psychophysiological reactions of the 43 victims of crime. As predicted, results of the crime analysis indicated that victims respond in negative ways to criminal victimisation, more so than emotionally neutral events. Although perceived risk to life did not impact the severity of all responses to criminal activity, it did increase the overall sense of threat, violation and fear in victims. As expected, results of the police interview analysis also indicated that police interviews elicit stronger psychophysiological and psychological responses in victims than neutral events. However, victims are affected differently during police interviews in comparison to crimes. A perceived need to prove victimisation during police interview impacted on victims' feelings of control and violation at different stages of their experiences. However, contrary to the hypothesis, the perceived support received from police officers did not impact on victims' experiences. When considering the results of the court testimony analysis (n=19), the psychological and psychophysiological ratings again provided support for the hypothesis, in this case, that testifying in court is a distressing event when compared to emotionally neutral events. Further, the need to prove victimisation during testimony increased feelings of anger during this stage and a general sense of threat throughout the entire courtroom experience. Against predictions, levels of violation, lack of control and anger were elevated when the perpetrator was absent from the courtroom. The results add to the literature on, and provide some interesting insights into, the complex impact of involvement in criminal justice system on victims' posttraumatic wellbeing.

CHAPTER 1
INTRODUCTION AND OVERVIEW

Introduction

Research examining crime traditionally has been undertaken within the context of the criminal justice system with the focus directed towards the offenders themselves. After some earlier research (e.g., Kilpatrick et al., 1989), there has been a more recent, noticeable shift in attention towards the victims of crime and their concerns (Orth & Maercker, 2004; Regehr & Alaggia, 2006; Robinson & Keithley, 2000). For instance, there is growing evidence that crime poses a considerable risk to the health of individual victims. In particular, exposure to crime and its effects has been recognised as posing a considerable risk to the adjustment of the victim and, in fact, is known to trigger long lasting or even permanent physical and psychological damage (Bailey & Whittle, 2004; Davis, Taylor, & Lurigio, 1996; Frieze, Hymer, & Greenberg, 1987; Norris & Kaniasty, 1994; Robinson & Keithley, 2000).

Although studies examining crime have focused on many different criminal actions including domestic violence, incorporating both physical and emotional abuse, sexual and physical abuse in childhood and adolescence, robbery, rape, and other violent crime (Davis et al., 1996; Orth & Maercker, 2004; Robinson & Keithley, 2000), much of the research literature concerning victimisation previously has concentrated on the effect of sexual crimes, such as child sexual abuse and adult rape, rather than the impact of other types of interpersonal crime and violence on adults (Mezey, 1996; Robinson & Keithley, 2000). Consequently, relatively less information is available about the psychological impact of offences that are of a serious, nonsexual nature (Davis et al., 1996).

In conjunction with the broadening of perspective with regard to the types of crimes being the focus of research, there has been development in interest in the examination of the psychological consequences of criminal victimisation. For example, consideration has been given to both the presence of symptom clusters consistent with psychiatric diagnoses as well as simply describing symptoms that develop as a consequence of criminal victimisation of both adults and children (Carlson & Dutton, 2003; New & Berliner, 2000; Norris, Kaniasty, & Scheer, 1990). In particular, trauma researchers have been interested in the relationship between victimisation and the development of psychopathology and symptomatology such as Posttraumatic Stress Disorder (PTSD) and Acute Stress Disorder (ASD), major depressive episodes, complicated or traumatic grief, and other trauma-related symptoms such as anxiety, sleep disturbance, antisocial behaviour, suicidal and homicidal ideation, and significant substance abuse/dependence (e.g., Bailey & Whittle, 2004; Boudreaux, Kilpatrick, Resnick, Best, & Saunders, 1998; Carlson & Dutton, 2003; Hembree & Foa, 2003; Litz, Gray, Bryant, & Adler, 2002; Resnick, Kilpatrick, Dansky, Saunders, & Best, 1993).

The research problem

There is no doubt that the actual crime itself can be a traumatic experience for the victim (Carlson & Dutton, 2003) and such victimisation has the potential to cause adverse psychological symptoms and disorders (Boudreaux et al., 1998; Carlson & Dutton, 2003; Kilpatrick & Acierno, 2003; New & Berliner, 2000; Rothbaum, Foa, Riggs, Murdock, & Walsh, 1992). However, less information is available about the

specific emotional consequences of exposure to criminal justice-related events experienced in the aftermath of criminal victimisation.

Nevertheless, there has been an increase in the amount of research that has suggested that the litigation process may have an adverse influence on a victim's symptom development and experience (Freedy, Resnick, Kilpatrick, Dansky, & Tidwell, 1994; Koss, 2000; Orth, 2002; Regehr, Alaggia, Lambert, & Saini, 2008; Tehrani, 2002; Yearnshire, 2002). For instance, there is growing research that has suggested involvement in criminal justice procedures, such as police interviews and court proceedings, can cause psychological distress for victims of crime. However, the specific reasons for such distress and the impact such experiences have on a victim's emotional recovery are not well known (Carlson & Dutton, 2003; Hembree & Foa, 2003; New & Berliner, 2000; Orth & Maercker, 2004).

It is the aim of the current research to examine victims' reactions to criminal justice-related events. Some researchers have suggested that events resulting from criminal victimisation, such as, being interviewed by police officers and attending court proceedings, may significantly challenge or overwhelm victims' coping resources (Campbell & Raja, 1999; Foley & Terrill, 2008; Herman, 2003; Maier, 2012; Parsons & Bergin, 2010; Patterson, 2011). It has been questioned whether involvement in events such as court proceedings retraumatise individuals already traumatised by direct exposure to crime resulting in an exacerbation of existing symptoms, or whether such criminal justice activities are associated with a process of secondary traumatisation or victimisation that provokes the development of new symptoms (Orth, 2002; Orth & Maercker, 2004).

It is unlikely that this question can be resolved without examination of victims' reactions to both the crime and post-crime criminal justice events. Certainly, to date,

there have been relatively few studies examining the traumatising or retraumatising effects of participation in criminal proceedings. Conflicting results have been obtained from the existing research (Orth & Maercker, 2004; Quas & Goodman, 2011). Additionally, despite some research targeting the issue of whether involvement in the criminal justice system is retraumatising or victimising for victims of crime, little is known about the nature of the stress responses to the criminal justice events that occur post-crime and whether these stress responses are similar in nature to the reaction to the original criminal event.

The aim of the current study is to determine the severity and intensity of peritraumatic responses of victims of crime to their original experience of the crime and to police interviews and giving courtroom testimony. Additionally, the study aims to explore different aspects of the above criminal justice proceedings that might contribute to the stressful nature of these experiences. By identifying stressful features of these experiences, they may be addressed during the subsequent criminal justice activities and, potentially, make it easier and less stressful for individuals who are required to endure these processes.

Overview of the thesis

The intention of the thesis is to explore the reactions of victims of crime to specific criminal justice activities, namely, involvement in a police interview and giving evidence at a criminal trial. In particular, the thesis considers whether exposure to these criminal justice events elicits a peri-traumatic response similar to that experienced when exposed to the actual crime. Firstly, it is necessary to determine that exposure to criminal events can elicit a traumatic response. This is

done by reviewing the literature on posttraumatic stress responses in victims of crime. Most of this literature seems to focus on severe reactions warranting a diagnosis of PTSD. Coverage of this literature is relevant because it established a link between criminal events and the traumatisation of victims. Of course, most posttraumatic responses are likely to be subclinical in nature and this literature is covered for that reason.

The major focus of this thesis will be on the peri-traumatic reactions of victims of crime to criminal events and the criminal justice experiences that may occur in the aftermath of the crime. The methodology selected will allow for the examination of these peri-traumatic reactions by considering psychological and psychophysiological reactions to memories of these events using a guided imagery.

In undertaking this examination of reactions to criminal victimisation and the criminal justice-related events that occur in the aftermath of a crime, it is the aim, firstly, to consider the relevant literature related to posttraumatic stress responses. Specifically, what constitutes traumatic stressors and the controversy surrounding the Diagnostic and Statistical Manual for Mental Disorders (DSM) stressor criterion (Criterion A), the signs and symptoms of post-trauma conditions such as PTSD and ASD will set the scene. The literature regarding criminal victimisation will then be presented with the specific focus on crime as a traumatic stressor, crime as a trigger for posttraumatic stress reactions and the impact of physical and psychological threat on the victim's responses. Events in the aftermath of criminal victimisation then will be presented. In particular, the impact of involvement in criminal justice activities such as police interviews and court proceedings on trauma survivors recovery will be discussed in terms of whether the litigation process potentially causes victims to

experience retraumatisation or secondary victimisation, and the factors associated with such potential.

An introduction into the first analysis will involve literature being presented with regard to different types of criminal victimisation, with specific examination of the factors that increase peritraumatic suffering. The specific analyses of participants' experiences during a past criminal event that occurred within the past 48 hours in comparison to an emotionally neutral event initially will be presented. This will be followed by a comparison between individuals who reported a high subjective risk of imminent harm during crime exposure with those who reported a low subjective risk of harm during crime exposure.

The analysis of the police interview will then commence with a presentation of the research into reporting crime to the police, information regarding the factors affecting police reporting rates, and aspects of the police interview that potentially contribute to post-trauma symptomatology. The experiences of those who perceived a need to prove victimisation during the police interview compared to those who did not will then be assessed. Additionally, a comparison will be made between the experiences of crime victims who were and were not satisfied with the level of support provided by police officers during their interview.

The literature pertaining to the experiences involved in providing courtroom testimony will be discussed in order to set the scene for the analysis of court procedures, with particular focus on the need to prove victimisation and the presence of the perpetrator in the courtroom. Analyses will involve examination of these factors to determine their influence on the responses to criminal justice activities.

The results then will be summarised. Consideration will be given to the broader implications of the results. Limitations of the study will be discussed and directions for future research will be identified.

CHAPTER 2
POSTTRAUMATIC STRESS RESPONSES

Posttraumatic stress responses

Traumatic events are a relatively common experience. Estimates have indicated that as many as 50-60% of people will be exposed to a traumatic event over the course of their life (Creamer, Burgess, & McFarlane, 2001; Ozer, Best, Lipsey, & Weiss, 2003). For some individuals who endure such traumatic experience, physical and psychological stress reactions result. There is considerable variation between studies with regard to the rates of stress reactions following exposure to traumatic events (e.g., Brewin, Andrews, & Valentine, 2000; Ozer et al., 2003). This variation is influenced by factors such as the nature of the traumatic event being researched, the nature of the sample being targeted by the research and factors such as the stringency of symptom classification (Brewin, Andrews, & Valentine, 2000; Ozer et al., 2003).

One possible outcome of exposure to a traumatic event is the development of PTSD (American Psychiatric Association [APA], 2000). According to the Diagnostic and Statistical Manual for Mental Disorders, fourth edition, text revision (DSM-IV-TR) diagnostic criteria, PTSD is an extreme response to a severe stressor. Therefore, there are certain characteristics that an individual must maintain for a period of at least one month before they can be classified as having the disorder. In addition, such characteristics must significantly impair the individual's quality of life by disrupting social, occupational and other functioning (APA, 2000). The DSM-IV-TR has separated these clinical symptoms into three main groups, namely, intrusion or re-experiencing symptoms, avoidance and numbing symptoms and hyperarousal.

The first group of symptoms, known as intrusion, describe persistent reexperiencing of the event by the trauma sufferer often by means of frequent and disturbing recollections of the event or nightmares which involve the traumatic event

being replayed or symbolised in some way (APA, 2000). The second group of symptoms includes attempts by the trauma survivors to avoid any stimuli that remind them of the traumatic event. This group also includes symptoms of numbing of general responsiveness which are characterised by a decreased interest in others, a sense of estrangement from others, and an inability to feel positive emotions. According to the DSM-IV-TR, individuals with posttraumatic stress symptoms often swing back and forth between sensations of reexperiencing and numbing (APA, 2000). The third group, that is concerned with symptoms of increased arousal or anxiety, include mainly sleep disturbance, hypervigilance, and an exaggerated startle response. However, for some, symptoms of irritability, anger outbursts and poor concentration also are reported (APA, 2000). These three groups of symptoms experienced by those suffering PTSD will be discussed in greater depth in due course.

Symptoms of PTSD often commence within the first three months following exposure to the trauma, although in some cases symptoms do not become apparent for months or even years after the event (APA, 2000; Bryant, Creamer, O'Donnell, Silove, & McFarlane, 2012; Yeager & Roberts, 2003). The duration of the symptoms also varies between sufferers, with complete recovery occurring within three months in approximately half of cases, whereas others experience symptoms for longer than twelve months post-trauma. During the course of the disorder, the specific symptoms and intensity of such symptoms experienced also may change as time passes (APA, 2000).

Interestingly, prior to the fourth edition of the Diagnostic and Statistical Manual for Mental Disorders (DSM-IV; American Psychiatric Association [APA], 1994), severe distress in the month following a traumatic event was not considered a diagnosable clinical disorder. This was to prevent normal and temporary stress

reactions from being pathologised (Harvey & Bryant, 2002; Litz et al., 2002). However, this also prevented severely traumatised individuals from being identified and offered access to early interventions. Thus, in line with the recognition that initial reactions may be dysfunctional in nature, ASD was developed as a new disorder (Litz et al., 2002). The main function of this new diagnosis was to identify acute posttraumatic stress reactions which could predict the later development of PTSD (Bryant et al., 2012; Harvey & Bryant, 2002).

In developing ASD, consideration was given to the influence dissociation has on posttrauma recovery and pathology (Cardena & Carlson, 2011; Harvey & Bryant, 2002). In particular, weight was given to the view that acutely traumatised victims' adjustment will be impaired if dissociative responses prevent access to and encoding of emotions and memories about their traumatic experience (Bryant et al., 2012; Harvey & Bryant, 2002). Furthermore, numerous studies have concluded that peritraumatic dissociation is highly predictive of posttraumatic stress symptoms (Harvey & Bryant, 2002). As such, there was an emphasis placed on dissociation within the ASD symptom criteria.

For instance, although an individual is diagnosed as having ASD when they experience significantly distressing symptoms of re-experiencing, avoidance and increased arousal similar to PTSD (APA, 2000; Bryant et al., 2012), they are also required to experience three dissociative symptoms. This is dissimilar to PTSD, where sufferers do not need to experience any dissociation in order to be diagnosed with the condition (APA, 2000; Bryant et al., 2012; Cardena & Carlson, 2011; Harvey & Bryant, 2002; Litz, Gray, Bryant, & Adler, 2002). For a diagnosis of ASD, symptoms also must present within two days to one month following the trauma. For

those survivors whose posttraumatic stress symptoms are present for longer than one month, the diagnosis is changed to PTSD (APA, 2000).

Although the introduction of ASD into the DSM-IV (APA, 1994) encouraged considerable research into the area of acute stress responses and their relationship to PTSD, it also came with considerable criticism. In fact, the condition has triggered substantial debate among researchers and produced an array of both supportive and unsupportive findings across studies (Cardena & Carlson, 2011; Harvey & Bryant, 2002),

In brief, although many studies have found that the majority of trauma survivors with diagnosable ASD are likely to subsequently develop PTSD (e.g., Bryant, 2011), many are also likely to acquire some other psychiatric disorder (Bryant et al., 2012). Furthermore, Bryant and colleagues (2012) added to the mounting evidence that most survivors who are ultimately diagnosed with PTSD are not actually initially diagnosed with ASD. Instead, it has been shown that PTSD, and other psychiatric diagnoses, can develop without the experience of acute symptoms in the initial aftermath of exposure to trauma (Bryant et al., 2012; Yeager & Roberts, 2003). Finally, in a study of the diagnostic overlap between ASD and PTSD in victims of violent crime, Brewin, Andrews and Rose (2003) demonstrated that there is a high level of overlap. This information, therefore, raises doubt about the credibility of ASD predicting the onset of PTSD and whether the two disorders represent distinct diagnoses.

Furthermore, whereas researchers agree peritraumatic dissociation seems to play an important role in the prediction of PTSD, the relationship is not linear. In fact, the association between the two experiences is complex and, as such, it has brought into light the question of whether dissociation should be a requirement of the ASD diagnosis (Cardena & Carlson, 2011; Harvey & Bryant, 2002).

This matter has been further complicated by the emergence of evidence that there may be a variety of pathological posttraumatic stress reactions. For instance, Cardena and Carlson (2011) suggested three main types of acute responses, including those characterised by marked dissociative symptoms; those featuring predominantly reexperiencing or other classical PTSD symptomatology; and those responses that the authors described as abnormally muted experiencing.

It is also worthy of note that despite earlier views about the likelihood of the development of a posttraumatic stress response following exposure to a traumatic event, it is now recognised that traumatic experience does not trigger the development of a posttraumatic stress condition in most cases (Brewin, Andrews, & Valentine, 2000; Long & Elhai, 2009; Semb, Henningsson, Fransson, & Sundbom, 2009). Indeed, it is estimated that only a relatively small percentage of people exposed to a traumatic event will develop a condition characterised by posttraumatic stress symptoms (Seidler & Wagner, 2006). For example, in a meta-analysis of 68 studies, Ozer and colleagues (2003) found that although approximately 50-60% of the general population are exposed to a traumatic event in their lifetime, roughly only 5-10% develop PTSD.

Of course, this does not mean that people who do not develop PTSD or ASD following exposure to a traumatic event will be symptom free in the aftermath of that exposure. Reference has been made to subclinical presentations that are characterised by less severe symptoms, fewer posttraumatic stress symptom types, or the experience of other types of psychological symptoms and/or diagnoses (Long & Elhai, 2009; McMillen, North, & Smith, 2000). In fact, some authors have suggested a subthreshold or partial PTSD syndrome for those trauma survivors who fail to meet the full criteria to warrant a diagnosis of PTSD but who nevertheless seem to be

suffering from posttraumatic stress symptoms (e.g., Stein, Walker, Hazen & Forde, 1997). In a study of 130 Californian earthquakes survivors, McMillen and colleagues (2000) found that despite the low PTSD rate, almost half of their sample met the diagnostic criteria for reexperiencing and arousal symptom clusters, but not the avoidance and numbing criterion. As such, they suggested that for moderately severe traumatic events, the experience of reexperiencing and hyperarousal symptoms could be classed as “normal”.

Whatever the nature of the response, it is evident that exposure to a traumatic experience is a necessary condition for the development of a clinical or subclinical response. The DSM-IV (APA, 1994) includes the stressor criterion (Criterion A) in the diagnostic framework for PTSD. This criterion states an individual must be exposed to a traumatic event whereby the event(s) involved actual or threatened death or serious injury, or a threat to one’s physical integrity. Furthermore, the person’s response is required to involve feelings of intense fear, helplessness or horror (APA, 1994).

Traumatic stressors

At present, PTSD and ASD are among a small number of psychiatric disorders whereby the symptoms experienced must be traced back to a previous event. It is also true that this previous stressful event must be traumatic in nature in order to warrant a posttraumatic stress diagnosis (Kilpatrick, Resnick, & Acierno, 2009).

However, despite the existence of the DSM stressor criterion, what constitutes a traumatic stressor and how Criterion A should be defined has been the subject of much debate since its inclusion in the DSM-III in 1980 (Kilpatrick et al., 2009; Long

& Elhai, 2009; Ozer et al., 2003; Seidler & Wagner, 2006). In particular, there have been conflicting views among researchers with regard to what differentiates a traumatic stressor that triggers the development of PTSD from a stressor that produces other stress-related emotional problems (Long & Elhai, 2009). As a result of such dispute and subsequent research, each successive edition of the DSM has seen a change in the stressor criterion. In fact, as time has passed a more lenient criterion and a more expansive list of traumatic events has been included in the definition of a traumatic stressor.

History of PTSD Definitions

In the DSM-III (1980, in Seidler & Wagner, 2006), a traumatic stressor was defined as an event “that would evoke significant symptoms of distress in almost everyone.” However, researchers argued this was too vague a definition and, thus, what was considered a traumatic event was modified in the DSM-III-R to include events that were “outside the range of usual human experience and would be markedly distressing to almost anyone”, for instance “serious threat to one’s life or physical integrity; serious threat or harm to one’s children, spouse, or other close relatives and friends; sudden destruction of one’s home or community; or seeing another person who has recently been, or is being, seriously injured or killed as the result of an accident or physical violence (Kubany, Ralston, & Hill, 2010; Seidler & Wagner, 2006). Under this definition, the more stressful and threatening the event experienced by the trauma victim, the greater its capacity to produce PTSD. However, the definition also meant that it was required of individual clinicians to reach the decision about whether an event was one that would be extremely

distressing for most individuals. This became identified as a problem because, not surprisingly, clinicians' views often differed on this matter. Additionally, emerging evidence that highlighted the importance of individual differences and vulnerabilities related to the traumatic event and the subsequent development of PTSD further complicated matters (Long & Elhai, 2009).

As a result of such findings, the definition of what was considered a traumatic stressor was again modified in the DSM-IV. Most importantly, a decision was made to incorporate a subjective component in the stressor criterion, making it distinctly different from earlier definitions (Kubany et al., 2010; Seidler & Wagner, 2006). Thus, defining a traumatic experience became a two-part process for clinicians.

Firstly, the objective component of the stressor criterion (Criterion A1) was designed to deal with the type of exposure and the nature of the event. Specifically, a traumatic event became defined as one in which the person firstly "experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to one's physical integrity of self or others" or "learning about the unexpected or violent death, serious harm, or threat of death or injury experienced by a family member or other close associate" (APA, 2000; Long & Elhai, 2009).

Secondly, the subjective element (Criterion A2) incorporates the trauma victim's individual response, namely, the perception of life threat during exposure to the event. Thus, an event is defined as traumatic if the individual also experienced "intense fear, helplessness, or horror" during exposure to the event (Kraemer, Wittmann, Jenewein, Maier, & Schnyder, 2009; Kubany et al., 2010; Long & Elhai, 2009; Seidler & Wagner, 2006).

Thus, according to the latest stressor criterion, a trauma survivor must meet both requirements of Criterion A to be given a diagnosis of PTSD. Alternatively, when individuals experience PTSD symptoms resulting from a lower magnitude stressor that fails to meet Criterion A1 and A2, they should be given the differential diagnosis of an adjustment disorder (Long & Elhai, 2009).

The DSM-IV-TR (APA, 2000) lists the specific types of direct and indirect events that can be classified as traumatic and, therefore, have the capacity to produce posttraumatic stress reactions in individuals. For instance, traumatic stressors that can be experienced directly include, but are not limited to, military combat, violent personal assault (sexual abuse, physical assault, robbery, mugging), being kidnapped or taken hostage, terrorist attack, torture, incarceration, natural or manmade disasters, severe automobile accidents, or being diagnosed with a life-threatening illness (APA, 2000). Clearly, there is evidence that direct exposure to a traumatic event has the capacity to cause psychological maladjustment or disturbance in the form of the development of posttraumatic stress symptoms (e.g., Schlenger, Caddell, Ebert, & Jordon, 2002).

The DSM-IV-TR also recognises that witnessing a traumatic event of another person indirectly can cause the development of posttraumatic stress symptoms. Thus, the following witnessed events are listed as being traumatic in nature: observing the serious injury or unnatural death of another person due to assault, accident, war, or disaster or unexpectedly witnessing a dead body or body parts. In particular, support for the view that witnessing a traumatic event may have detrimental effects for the observer is evident in research examining the reactions of police and emergency workers (Robinson, Sigman, & Wilson, 1997; Schooler, Dougall, & Baum, 1999) and morgue workers (e.g., Ursano, Fullerton, Kao, & Bhartiya, 1995). Similarly, the

development of posttraumatic stress reactions as a consequence of viewing the traumatic experiences of others through the medium of television has been reported (Schuster et al., 2001). Broadcast of graphic images of events such as the Oklahoma City Bombing and the World Trade Centre terrorist attacks have been demonstrated to result in the development of posttraumatic stress symptoms (e.g., Pfefferbaum et al., 2000; Schlenger et al., 2002; Schuster et al., 2001).

Finally, DSM-IV-TR suggests that learning or hearing about a family member or close associate being involved in a traumatic event is sufficient to produce posttraumatic stress symptoms. Specific events of this nature include violent personal assault, serious accident, or serious injury experienced by a family member or a close friend; learning about the sudden, unexpected death of a family member or a close friend; or learning that one's child has a life-threatening disease. The trauma literature mainly has focused on learning of the death or serious injury of one's child (e.g., Landolt, Vollrath, Ribi, Gnehm, & Sennhauser, 2003) or hearing of the death or mutilation of a loved one (Schuster et al., 2001). In addition, there have been documented cases that learning of the traumatic events of individuals not intimately related is sufficient to trigger symptoms in some cases. In particular, research into vicarious traumatisation has attempted to identify the adverse effects that helpers in the trauma field may experience. Individuals such as counsellors, psychologists, and rehabilitation consultants as well as emergency workers such as police officers, ambulance officers and fire fighters who listen to reports of trauma, horror, human cruelty and extreme loss may suffer such adverse effects. For example, research has suggested that such helpers may develop posttraumatic stress symptoms such as intrusive thoughts, nightmares and avoidance as well as changes in their relationships

with the wider community, their colleagues and their families (e.g., Jenkins & Baird, 2002; Sexton, 1999).

Despite the amount of research attention directed towards the definition of a traumatic stressor and the many changes to the criterion since its formation, controversy remains. Current concerns relate to whether the DSM-IV stressor criterion is too conservative or too liberal (e.g., Kilpatrick et al., 2009; Kraemer et al., 2009; Kubany et al., 2010; Long & Elhair, 2009; Seidler & Wagner, 2006; Van Hoof, McFarlane, Baur, Abraham, & Barnes, 2009).

Such concerns stem from the complicated association between traumatic stress and the development of PTSD and the research has highlighted that there is a complex array of individual differences and vulnerabilities at play. In fact, in addition to the studies that report low levels of PTSD following exposure to extreme stress and the development of other mental health-related symptoms or conditions following such exposure (Long & Elhai, 2009; Semb et al., 2009; Seidler & Wagner, 2009), other studies have demonstrated PTSD symptoms resulting from low-magnitude or non-Criterion A1 events (Long & Elhai, 2009; Seidler & Wagner, 2009; Van Hoof et al., 2009). Consequently, some critics have raised doubts with respect to the role the stressor criterion occupies in the development of PTSD and, thus, whether it should be retained or not.

In an article by Kilpatrick and colleagues (2009), some of the specific concerns put forward by authors were discussed. For instance, they highlighted the concern about whether broadening the definition of what constitutes a traumatic stressor dilutes the PTSD construct, increasing the prevalence of PTSD and, therefore, increasing the risk of malingering individuals' attempts to claim for compensation and/or seek treatment when it is not warranted. Other criticisms of broadening or

removing Criterion A1 have been reported in Long and Elhai's (2009) paper on the stressor criterion. Among others, they included concerns regarding difficulties identifying typical PTSD symptom patterns or mechanisms underlying the development of the disorder, limiting resources for those experiencing truly severe posttraumatic stress reactions, and pathologising normal distress.

Those in favour of widening the stressor criterion have argued that it should take place because of the fact that PTSD reactions result from an array of events. Furthermore, such authors also have argued that it would increase the acknowledgement of the symptoms and, thus, allow greater access to resources for trauma victims. Nevertheless, researchers on both side of the debate agree that the definition of what constitutes a traumatic stressor is important because it relates to the correct identification of those trauma victims suffering distress, allocation of resources to such victims and clarification of research pertaining to trauma (Long & Elhai, 2009).

Posttraumatic stress symptoms

The intrusion, avoidance and numbing, and hyperarousal symptoms that characterise a posttraumatic stress response are specific in nature (APA, 2000). The first group includes symptoms associated with 'intrusion' whereby survivors relive their traumatic event as though it were continually recurring (Bryant, O'Donnell, Creamer, McFarlane, & Silove, 2011). These intrusions of traumatic memories can take many different forms, for example, repetitive thoughts, images or recollections related to the trauma; recurrent dreams of the event; disturbing nightmares; flashbacks; intense emotions such as panic or rage; somatic sensations such as pain, sounds, smells, or

tastes; as well as interpersonal re-enactments (Falsetti, Monnier, Davis, & Resnick, 2002; Jelinek et al., 2010; Laub & Auerhahn, 1993).

Intense psychological distress or physiological reactivity is often triggered when the person is exposed to events that resemble or symbolise an aspect of their traumatic event (APA, 2000). Research has suggested that intrusive thoughts and images are quite common among and distressing for trauma victims (Falsetti et al., 2002). For example, in a study by Ehlers and associates (2002), it was determined that not only are visual intrusive memories common across all types of trauma but that, unexpectedly, people seem to mainly re-experience (with the most emotional impact) the visual or other sensory stimuli that they perceived shortly before the incident. According to these researchers, this explains why intrusive memories provoke a feeling of current threat.

Hackmann and colleagues (2004) further suggested that although people experience the same original intrusive memories repeatedly, this does not necessarily mean that the memories are an accurate reflection of what happened. Rather they represent the individual's subjective perception of what occurred. In fact, trauma survivors with PTSD re-experience their original emotions and sensory sensations even if they have acquired new information that conflict with their initial thoughts (Dunmore, Clark, & Ehlers, 2001; Ehlers & Clark, 2000). Over time, triggers for the intrusive thoughts of the trauma may become increasingly subtle and generalised so that irrelevant stimuli may activate such intrusions (van der Kolk, McFarlane, & Weisaeth, 1996). On the other hand, successful treatment can lead to a substantial reduction in intrusive memories (Hackmann, Ehlers, Speckmans, & Clark, 2004).

There have been a range of explanations proposed with regard to the causes of intrusive memories and thoughts. In a recent article considering the experience of intrusive symptoms in disorders other than PTSD, Bryant and colleagues (2011)

identified a number of explanations including insufficiently encoded memories in one's autobiographical memory that cause unintentional thoughts; the fragmented and perceptually-based modes of encoding that bring them into awareness; internal or external triggers that cause the memories to be activated; active thought suppression that result in intrusions being brought into consciousness; highly important and emotionally-provoking thoughts being more likely to intrude; or that unusual thoughts cause individuals to seek explanations for them, therefore, causing their involuntary occurrence.

The second group of clinical symptoms refers to instances whereby the individual exhibits persistent 'avoidance' of stimuli associated with the trauma and a numbing of general responsiveness. Once traumatised individuals become troubled by intrusive re-experiences of their traumatic event, they generally start arranging their lives so they can avoid having to endure the emotions caused by these intrusions. For instance, the individual commonly makes deliberate attempts to avoid feelings, thoughts, or conversations about the incident, as well as activities, situations or other people who provoke reminiscences (e.g., APA, 2000; Kring, Davidson, Neale, & Johnson 2007).

In fact, these individuals may even develop amnesia, intentionally or unintentionally use drugs or alcohol to numb the awareness of distressing emotional states, or use dissociation to keep unpleasant experiences from conscious awareness (van der Kolk et al., 1996). Many people with PTSD also often experience 'psychic numbing' or 'emotional anaesthesia' soon after the traumatic event. This refers to a decreased interest in others, a diminished participation in previously enjoyed activities, a sense of detachment or estrangement, and an inability to feel emotions such as intimacy, tenderness and sexual arousal or interest (APA, 2000; Kring et al., 2007). However, the mechanisms that underlie emotional numbing symptoms associated with

PTSD are not well understood. Furthermore, proposals have been put forward that the avoidance and emotional numbing symptoms of PTSD should form separate symptom clusters (Forbes et al., 2011). The reason for this suggestion stems from studies of the factor structure of PTSD symptoms that demonstrate that they are separate symptom groups (see Tull & Roemer, 2003). Some have also suggested that avoidance behaviours are engaged in actively by the trauma survivor, whereas emotional numbing is an automatic or passive psychological process. If the DSM-V was to separate the symptoms, this would mean that individuals would be required to experience both avoidance and a numbing of general responsiveness in order to warrant a diagnosis of PTSD (Forbes et al., 2011).

The third group of clinical PTSD symptoms includes 'hyperarousal' experiences such as persistent increased arousal or anxiety above what was present before the trauma (APA, 2000). Even though sufferers of PTSD typically deal with their environment through emotional restriction, their body's stress systems continue to react to certain physical and emotional triggers as if the threat or danger might return at any time (Kring et al., 2007). These reactions may include sleep disturbance due to nightmares; hypervigilance; intense negative emotions such as fear, panic, anxiety, irritability and anger; an exaggerated startle response; as well as difficulty concentrating (APA, 2000; Kring et al., 2007). In some instances, these reactions may be in response to only minor stimuli whereby individuals can either overreact and threaten others, or shut down and freeze.

One of the most distressing features of hyperarousal is the generalisation of threat. This is where the world is seen as an increasingly unsafe place, and neutral environmental stimuli and normal physical sensations may take on a new and threatening significance (van der Kolk et al., 1996). Laboratory studies have confirmed

these clinical symptoms by recording the heightened physiological reactivity of PTSD patients to combat imagery including high-magnitude startle responses (reviewed by Kring et al., 2007).

Tull and Roemer (2003), among others, have examined whether there is a relationship between hyperarousal symptoms and emotional numbing. Interestingly, their study indicated a strong association between the two groups of symptoms indicating that hyperarousal symptoms can effectively predict emotional numbing symptoms. This is not surprising given the research that has suggested that emotional numbing, or dissociation, occurs as the result of a chemical reaction being triggered when an individual's arousal increases to a vulnerable level (Panzer & Viljoen, 2004).

Researchers have recognised that the three clinical clusters of symptoms of PTSD (i.e., intrusion, avoidance and emotional numbing, and hyperarousal) can lead to other mental health problems. For instance, studies have shown that trauma victims with a diagnosis of PTSD are at risk of developing anxiety disorders, depression, anger, guilt, shame, substance abuse, marital problems, poor physical health, identity confusion, sexual dysfunction, and occupational impairment. In addition, thoughts of suicide and the development of suicidal plans are common, as are incidents of explosive violence and stress-related psychophysiological problems, such as low back pain, headaches, and gastrointestinal disorders (e.g., Carlson & Dutton, 2003; Kring et al., 2007). Thus, PTSD can have a profound effect on an individual as a result of the symptoms the traumatic experience(s) can provoke and the consequences they have on the individual's quality of life and relationships with others.

CHAPTER 3

CRIMINAL VICITIMISATION AND POSTTRAUMATIC STRESS

Crime as a traumatic stressor

As more research is being directed towards exploring the responses of individuals who have been victims of crime (e.g., Davis et al., 1996), it is becoming clear that exposure to criminal actions by others has the potential to cause debilitating psychological effects. In particular, examinations of both non-clinical and clinical populations are leading to an increase in the understanding of the psychological consequences of criminal victimisation (e.g., Boudreaux et al., 1998; Resnick et al., 1993).

For example, studies have illustrated the negative psychological consequences of criminal victimisation with documented elevated symptoms and psychiatric disorders in adult and child victims (Carlson & Dutton, 2003; Davis et al., 1996; New & Berliner, 2000). In particular, trauma researchers have been interested in the relationship between victimisation and types of psychopathology such as PTSD, major depressive episodes, and complicated or traumatic grief, as well as other trauma-related symptoms such as anxiety, sleep disturbances, intrusive thoughts, hyperarousal, antisocial behaviour, suicidal and homicidal ideation, as well as substance abuse/dependence (Bailey & Whittle, 2004; Boudreaux et al., 1998; Carlson & Dutton, 2003; Hembree & Foa, 2003; Litz et al., 2002). The cluster of signs and symptoms that frequently occur after major crimes are those identified to be associated with PTSD and, more recently, ASD (Litz et al., 2002).

Furthermore, researchers have begun to study posttraumatic stress responses of criminal victims in comparison to other traumatic event survivors. One particular study was undertaken by Naifeh and colleagues (2008) who sought to compare the responses of victims of crime with those who were involved in an industrial accident.

Their results demonstrated that the levels of distress and fear experienced by victims of crime who suffer PTSD were greater than for the accident survivors. In a comparison of PTSD-diagnosed military veterans with victims of crime, although veterans reported more severe symptoms, criminal victims nevertheless reported clinically significant scores on four out of the ten scales. Additionally, although both groups scored highest on the intrusive experiences (IE) scale, the victims of crime scored second highest on the anxious arousal (AA), followed by the defensive avoidance (DA) and dissociation (DIS) scales (Shercliffe & Colotla, 2009).

Victims of crime are at risk of developing ASD or PTSD because many crimes represent traumatic stressors. Certainly, many criminal events would meet the DSM stressor criterion. Even if alternative definitions of traumatic events are considered because of the lack of consensus about the stressor criterion, many criminal events would still be classified as traumatic in nature.

Carlson and colleagues have suggested that these type of experiences are “so sudden, uncontrollable, and extremely negative that they produce overwhelming fear” (Carlson & Dutton, 2003, pp. 133). Certainly, research examining different types of crimes has established that criminal victimisation is a traumatic event with immediate adverse psychological and physical impacts (e.g., Brewin, Andrews, & Rose, 2000; Hembree & Foa, 2003; Johansen, Wahl, Eilertsen, & Weisaeth, 2007; Pico-Alfonso, 2005; Semb et al., 2009).

Crime triggering posttraumatic stress reactions

It is becoming increasingly apparent that the emotional impact of crime often can be more devastating than its medical (e.g., personal injury) or economic (e.g.,

property loss) consequences. In fact, researchers have suggested that exposure to criminal victimisation can be a particularly stressful experience when compared with other stressful events (Green & Pomeroy, 2007; Naifeh et al., 2008).

Rape is a particularly traumatic experience (Boudreaux et al., 1998; Davis et al., 1996). Therefore, it is not surprising that it is one of the most extensively studied crimes in terms of its impact on victims. Research has indicated that many rape victims experience a range of psychological symptoms including fear and anxiety, suicidal thoughts, sexual dysfunction, diminished self-esteem, depression, chronic physical complaints, and drug abuse (Boudreaux et al., 1998; Davis et al., 1996), as well as posttraumatic stress reactions.

Much of the research undertaken in the area also has suggested that the development of PTSD following rape is very common (e.g., McMillen et al., 2000; Ullman & Filipas, 2001). In a study using a community sample of female rape victims, Kilpatrick, Edmunds and Seymour (1992) found that one-third of the victims experienced PTSD at some time after their sexual assault. A higher rate was documented in an alternate study undertaken by Rothbaum and colleagues (1992). Here, the authors found that posttraumatic stress symptoms were evident in 94% of victims within 2 weeks of the assault and PTSD was diagnosed in 47% of victims within 3 months of the assault. Furthermore, symptoms three months after a rape have been found to be predictive of a chronic course of PTSD ([Davis](#) & [Breslau](#), 1994). However, one must be cautious in interpreting such findings because crimes such as rape and other sexual assault are more than likely underdetected and underreported. Thus, if this is true, it could be the case that the prevalence of rape-related PTSD is even higher than previously reported (Resnick & Kilpatrick, 2006),

or, indeed, that the presence of significant posttraumatic stress symptoms encourages reporting, thus skewing reported rates.

Intimate partner violence (IPV) is also becoming increasingly a focus of attention within the criminal victimisation research literature (Dennison & Thompson, 2011). As such, there is mounting evidence to suggest that IPV has a considerable adverse effect on the psychological adjustment of victims (Garcia-Linares et al., 2005; Hughes, Cangiano, & Hopper, 2011). In fact, many studies have reported a strong association between IPV and the development of consequent PTSD (e.g., Chemtob & Carlson, 2004; Lilly & Graham-Bermann, 2010; Mertin & Mohr, 2000). This is not surprising given that the term IPV accounts for an array of violent acts including physical and sexual assault, threats of physical or sexual violence, and psychological/emotional abusive or controlling behaviours (Dennison & Thompson, 2011; Schumacher et al., 2010; Pico-Alfonso, 2005). Studies also have documented other psychological problems such as anxiety and depression, low self-esteem, eating disorders and substance abuse in female victims of domestic violence (Briere & Jordan, 2004).

Research attention also has been devoted to studying victims' responses to violent physical assault. Indeed, researchers have suggested that this type of criminal victimisation often can be classified as a traumatic event (Hembree & Foa, 2003) which produces not only physical injuries, but has the potential to lead to a diverse range of long lasting and sometimes permanent emotional problems such as PTSD (Johansen et al., 2007; Robinson & Keithley, 2000). As such, an increased number of studies have documented the adverse psychological impact on victims of this type of crime. For instance, a longitudinal study by Johansen and colleagues (2007) indicated a high prevalence rate and symptom severity of PTSD following exposure to violent

assault, with the conclusion being reached that such victims may endure serious long-term emotional problems.

Some researchers have found that victims of crimes that do not involve physical assault or injury such as burglary also may suffer unpleasant reactions (see Robinson & Keithley, 2000). For example, Greenberg and Ruback (1992) studied the immediate and long-term reactions of psychology students who had been the victims of residential burglary and theft. They found that 81% of the sample indicated that they were still bothered by the crime five months after its occurrence. Furthermore, 43% viewed their life as less predictable, and 48% viewed themselves as less trusting of others. In another study, Norris and Kaniasty (1994) studied a sample made up of violent crime victims, property crime victims and nonvictims. The results showed that three months, nine months and fifteen months after the crime, victims of both crime groups experienced psychological symptoms at a much higher level than the nonvictims. Studies undertaken by Kilpatrick and colleagues (e.g., 1989, 2003) have also indicated a high prevalence of PTSD and other mental health problems in victims of various crimes such as assault, robbery, and burglary.

Although numerous studies within the area of crime and criminal victims have demonstrated that PTSD can result from many types of criminal victimisation (Brewin, Andrews, & Rose, 2000), there are some basic limitations of many of these studies. For instance, much of the research on crime and crime-related PTSD in adults has focused on women. Furthermore, much of the existing research on violence and its psychological consequences has some methodological limitations. For example, many researchers focus on one type of crime occurring at one point in time, carried out by one type of perpetrator; they fail to consider the potential impact of multiple violent events; they use non-representative samples; they do not examine

complex relationships between risk factors for crime and subsequent mental health functioning; and they fail to establish the temporal sequence of violence, mental health functioning, and further violence (Resnick & Kilpatrick, 2006).

Thus, research examining the effects of crime has moved beyond simply studying the frequency and intensity of psychological symptoms and disorders. Indeed, researchers have more recently focused on specific predictors of post-victimisation psychological distress. There appears to be an increasing consensus among researchers that there are certain risk factors that lead to the development of posttraumatic stress reactions such as PTSD. Despite this, the area is complex and there appears to be multiple pre-trauma, peri-trauma and post-trauma features that can contribute to victims' posttraumatic distress. For example, the examination of the influence of demographic characteristics has been prominent in the research literature. In fact, many researchers agree that age, gender, education and employment status can be important variables relating to the onset of psychological distress following victimisation (Davis et al., 1996; Semb et al., 2009). Specifically, studies have shown that older age (e.g., Brewin, Andrews, & Valentine, 2000), female gender (e.g., Andrews, Brewin, & Rose, 2003; Brewin, Andrews, & Valentine, 2000; Semb et al., 2009), limited education (e.g., Brewin, Andrews, & Valentine, 2000) and unemployment (e.g., Brewin, Andrews, & Valentine, 2000; Semb et al., 2009) all can negatively impact on posttraumatic adjustment by increasing the likelihood of the development of disorders such as PTSD.

Victim specific factors such as prior victimisation and previctimisation adjustment and stress also have been a target of investigation (Hughes et al., 2011; Litz et al., 2002). Results of studies have demonstrated that previous exposure to trauma (e.g., Brewin, Andrews, & Valentine, 2000; Ozer et al., 2003; Semb et al.,

2009), poor psychological functioning prior to trauma exposure (e.g., Brewin, Andrews, & Valentine, 2000; Ozer et al., 2003; Semb et al., 2009) and/or high levels of pre-trauma stress (e.g., Brewin, Andrews, & Valentine, 2000) can lead to greater posttraumatic distress.

Post-crime characteristics such as level and appropriateness of support, coping styles, self-efficacy and secondary emotions also have been studied in relation to the development of suffering postvictimisation (e.g., Andrews, Brewin, & Rose, 2003; Davis et al., 1996; Green & Pomeroy, 2007; Hughes et al., 2011; Johansen et al., 2007; Lilly & Graham-Bermann, 2010; Semb et al., 2009). In particular, it has been found that dissatisfaction with social support (e.g., Andrews, Brewin, & Rose, 2003; Brewin, Andrews, & Valentine, 2000; Green & Pomeroy, 2007; Johansen et al., 2007; Litz et al., 2002; Ozer et al., 2003), poor coping styles (e.g., Green & Pomeroy, 2007), lack of self-efficacy (e.g., Johansen et al., 2007) and the development of secondary emotions such as anger and shame (e.g., Andrews, Brewin, Rose, & Kirk, 2000; Kunst et al., 2011; Leskela, Dieperink, & Thuras, 2002; Semb et al., 2009) following exposure to the criminal act all increase a victim's chances of developing conditions such as PTSD.

Physical versus psychological threat

Researchers also have been interested in studying peritraumatic or crime-related characteristics and their impact on a victim's psychological wellbeing following exposure to a traumatic incident. In particular, both objective and subjective aspects of the crime have been identified including, but not limited to, the severity of injury sustained, perceived life threat during exposure, and the experience of different

emotional states and/or dissociation during exposure (Davis et al., 1996; Hughes et al., 2011; Johansen et al., 2007; Lilly & Graham-Bermann, 2010; Resnick & Kilpatrick, 2006; Semb et al., 2009). Furthermore, because the objective and subjective characteristics differ depending on the type of incident experienced, a distinction usefully can be made between crimes against the victim and crimes directed at their property.

There is sufficient agreement within the area of victims of crime research that personal crimes, such as sexual and physical abuse, can be traumatic for the individual exposed to such crimes. This is not surprising given that such crimes involve a direct threat against the individual's physical wellbeing. As such, considerable exploration of the impact of physical injury on a victim's posttrauma recovery has been undertaken (e.g., Kilpatrick & Acierno, 2003; Resnick et al., 1993). However, prior research regarding physical injury as a contributor to PTSD has produced mixed results. Some literature has reported that rates of PTSD have been found to be much higher among those who have been victims of violent crime than among those who have been victims of other types of traumatic events (Kilpatrick & Acierno, 2003).

For instance, Kilpatrick and colleagues have devoted considerable research effort to examine the effects on victims of crime. In their early research dating back to 1989, they identified some crucial crime risk factors that increase the chance of post-victimisation distress. These characteristics included completed rape, threat to life and physical injury. Resnick, Kilpatrick and colleagues (1993) again found that victims of crime who suffered physical injuries and who thought at the time of the crime they might have been killed or seriously injured (45.2%) were much more likely to suffer from PTSD than victims whose crimes did not involve personal injury or a threat to their life (19%). These researchers have since stated that the risk of

posttraumatic emotional problems is highest in individuals who were injured and/or who reported feeling fearful they might be seriously injured or killed during victimisation (Kilpatrick & Acierno, 2003).

Additionally, more recently, Green and Pomeroy (2007) assessed the differences between victims of violent and nonviolent experiences. Their study demonstrated a significant difference in the experiences in the aftermath of crime whereby victims of violent crime recorded more distress, such as depression, anger, PTSD and anxiety, following their trauma. The authors discussed the differences in terms of social support and employment of different coping strategies between the two types of crime victims. However, on the other hand, Johansen and associates (2007) suggested that physical injury does not need to be severe in order to cause negative psychological states such as PTSD, anxiety and depression.

It is also important to note that some crimes against the person do not involve a physical threat but rather involve a threat to the victim's psychological integrity. Studies also have documented cases of posttraumatic maladjustment following psychological assaults which do not necessarily entail objective risk. For example, Stockdale, Logan and Weston (2009) explored the extent to which sexual harassment predicted later posttraumatic stress symptoms. Their results demonstrated a significant association between the two indicating that physical injury or threat of physical injury need not be present in the development of posttraumatic distress.

Further, gender harassment through cyberspace has more recently become the focus of research in terms of the impact it has on victims (Halder & Jaishankar, 2011). With this type of crime, physical abuse is absent, however, verbal abuse such as sexual bullying, name calling and anonymous group attacks, obscene emails (including rape threats), derogatory texts and posting personal information about

victims is present (Citron, 2009; Halder & Jaishankar, 2011). Some studies have shown that cyber gender harassment has the potential to cause significant emotional distress in victims to the point that some women have committed suicide as a result of their distressing experiences (Citron, 2009).

Additionally, Pico-Alfonso (2005) researched how the physical, psychological and sexual components of intimate partner violence (IPV) interacted to produce posttraumatic stress responses in a group of women. Although all three types of IPV significantly increased the likelihood of the development of PTSD when compared to the non-abused control group, the psychological component of IPV was the strongest predictor of PTSD.

On the other hand, crimes against property differ from those directed against persons because there is no direct threat to the victim's physical safety. However, despite this, even early studies researching the posttraumatic reactions of victims of different types of crime and victims of other traumatic events have found common responses following such exposure (Frieze et al., 1987). In fact, some have speculated that crimes such as those directed at the victim's property, which could be classified as less severe in nature, have the potential to cause adverse reactions in victims, even though the objective threat to self is not present (Davis et al., 1996). Actually, in accordance with the identification that a threat may be perceived, subjectively, by the victim and this threat perception is an important post-trauma adjustment predictor (APA, 2000; Breslau & Kessler, 2001), some have argued that the psychological symptomatology following property crime could stem from a victim's perception of threat.

Although less research attention has been given to property crime, Robinson and Keithley (2000) have stated that common property crimes, such as burglary, can

have a significantly negative impact on the psychological wellbeing of crime victims. Other studies have shown pervasive symptomatology including depression, anxiety, somatisation, hostility and fear following exposure to property crime, although the level of distress reported was less severe when compared to violent crime (Norris & Kaniasty, 1994).

CHAPTER 4

EVENTS IN THE AFTERMATH OF CRIMINAL VICTIMISATION

Events in the aftermath of victimisation

Regardless of the crime, if a victim reports their trauma to the police, they are faced with an array of additional experiences. These may include one or multiple police interviews and attendance at court proceeding(s) whereby the victim may be required to give evidence and face cross-examination about their experience.

Concerns are being frequently raised with regard to the psychological consequences of legal system participation. Despite this, there is a limited amount of empirical research examining such experiences (Quas & Goodman, 2011) and such research has focused mainly on the impact of involvement on child sexual abuse, and adult rape and violent crime victims. Additionally, the findings of studies that have been undertaken have produced mixed findings with both positive and negative experiences being reported by victims who have engaged in the criminal justice system (Parsons & Bergin, 2010; Walsh & Bruce, 2011).

For example, there is some research that has documented beneficial outcomes for those who come into contact with the criminal justice system (Parsons & Bergin, 2010). In particular, studies have indicated that some victims become deeply involved in the process and report satisfying interactions with professionals within the legal system (Walsh & Bruce, 2011). Herman (2003) has suggested explanations for positive mental health outcomes after engagement within the legal system including enhanced levels of safety and protection for victims, and reduced threat of future victimisation by the perpetrator. The author also discussed the potential increase in the victim's level of perceived power to protect others by deterring the offender. Finally, Herman suggested that engagement in legal interventions may lead to public acknowledgement of suffering and compensation or justice for the harm endured. A

small number of researchers also have speculated that such involvement can result in confronting reminders of the actual trauma but that this, in fact, may assist a victim's recovery (Orth, 2002; Parsons & Bergin, 2010).

Some studies have produced results that show neither an exceedingly positive or negative experience for crime victims within the criminal justice system (e.g., Frazier & Hanley, 1996). In fact, Orth and Maercker (2004) reported that criminal trials, in particular, do not influence the posttraumatic stress reactions of victims of crime. Furthermore, in a review examining child victims within the court system, Whitcomb (2003) concluded that most children can testify without suffering enduring negative psychological effects. However, despite this finding, the author also suggested there are certain elements of the legal system that have the capacity to heighten distress levels for such victims. These included having to undergo multiple interviews during the course of the investigation, confronting the defendant, describing the abuse in detail, testifying with strangers watching, and being confused by some questions asked of them. Children have demonstrated symptoms of anxiety and stress while testifying including crying, shaking, trying to leave the courtroom and not answering some questions as a result of these factors (Whitcomb, 2003).

Increasing evidence has suggested that an encounter with the criminal justice system also may expose crime victims to an array of significant psychological risks (Herman, 2003; Parsons & Bergin, 2010). In fact, Herman (2003) proposed that such involvement can represent a severely emotionally stressful encounter for even well functioning individuals. It actually has been stated that the criminal justice system's response to victims of crime can cause the process to ultimately act as either a healing experience or an experience which impedes the victim's recovery (Parsons & Bergin, 2010). Additionally, the system's poor response has been noted to stem from the fact

that most criminal justice agencies are inadequately prepared to respond to victims' needs and police and court personnel are also seldom trained to recognise or manage the psychological needs of victims (Herman, 2003; Parsons & Bergin, 2010). This would account for reports of negative experiences from victims regarding feeling uninformed, discouraged and confused with regard to their rights (Walsh & Bruce, 2011).

Further, Herman has argued that the mental health needs of victims of crime are frequently in direct opposition to what they are required to endure within the criminal justice system. For instance, although victims require acknowledgement and support from others, in the criminal justice system they are faced with a situation that publicly challenges their credibility. Additionally, victims crave feelings of power and control, however, the court, in particular, requires they abide by procedures and rules over which they have no control. Victims also need the chance to disclose their story under circumstances of their choice, whereas, the court does not allow for this. For instance, victims do not get to choose how they tell their story or in what setting they tell this story when giving evidence in a court of law. Finally, at a time when they attempt to avoid any reminders of the trauma, the court often acts as a trigger of such reminders for victims and potentially increases distress levels (Herman, 2003).

According to Campbell and Raja (2005), many victims view the legal process as a potentially traumatic ordeal and many also feel displeased with their experience. In fact, in a study of violent crime victims by Freedy and his colleagues (1994), the majority of participants expected the criminal justice system to offer them certain services. However, most of these victims also reported a lack of access to any services. They suggested that their results imply that victims who engage in the legal system are at risk for developing PTSD as a result of their involvement. Similarly, in

studies of rape victims, testifying in court has been reported as an extremely fear evoking experience (Parsons & Bergin, 2010). In fact, in a study of adult survivors of child rape, testifying in court was found to be one of four significant predictors of the experience of posttraumatic stress symptoms (Epstein, Saunders, & Kilpatrick, 1997). Of course, it has been recognised that the need to give evidence in court about a crime may be a reflection of the severity of the crime and it is this greater severity of the traumatic experience that is associated with the development of PTSD from exposure to the court system (Epstein et al., 1997).

Retraumatisation versus secondary victimisation

In line with the increased recognition that contact with the legal system can be potentially harmful for crime victims' psychological wellbeing, there is some confusion as to whether involvement in the litigation process causes victims to be retraumatised or whether such events represent secondary traumatic experiences. Furthermore, studies examining the concept of retraumatisation and secondary victimisation focus almost exclusively on rape victims in court.

Orth and Maercker (2004) clearly defined retraumatisation in an article examining the impact attendance at trials have on victims of crime, as a considerable increase in the intensity of posttraumatic stress responses to the original crime, or similarly, an exacerbation of PTSD. Herman (2003) agreed that for victims of crime who may be suffering posttraumatic distress, involvement in the criminal justice system as a whole may cause survivors to experience an increase in symptomatology. In fact, Herman suggested that many victims' own descriptions of their engagement in the criminal justice system could lead to an understanding of the experience as

revictimising. Certainly, some researchers have reported that victims of crime experience an exacerbation of mental health problems (Campbell & Raja, 1999; Koss, 2000; Orth, 2002).

However, few empirical studies have proved the retraumatising effects of involvement in the legal system on victims of crime. For example, in two studies of rape and nonsexual assault victims conducted by Orth and Maercker (2004), their findings indicated that trial variables failed to adequately predict posttraumatic stress reactions years after their involvement in court proceedings. Furthermore, victims' posttraumatic stress reactions remained relatively stable from a few weeks before the trial to a few weeks after their engagement in the trial. Thus, these findings did not support the notion that attendance at court trials are retraumatising for victims, thereby intensifying their symptoms.

Certainly, it has been suggested that even if the court proceedings do not exacerbate the original psychological problems, involvement in criminal proceedings might induce other harmful psychological changes among victims of crime (Koss, 2000; Orth, 2002). In this way, the victim of crime is not retraumatised but again traumatised by additional events. Parsons and Bergin (2010) suggested that contact with the legal system can cause secondary victimisation and defined it as the process whereby victims feel blamed by the justice system or experience other negative reactions from society as a consequence of their primary victimisation.

In fact, there have been many different definitions of secondary victimisation put forward. For example, according to Halder and Jaishankar (2011), secondary victimisation could be defined as an extension of the process of victimisation after the effects of the primary victimisation diminish. They suggested it begins when the victim commences their interaction with reporting agencies and consists of victim-

blaming attitudes, reactions, behaviours and practises by service providers. Orth (2002) further added to the definition by stating that secondary victimisation also involves the violation of the victim's rights over and above the initial victimisation. For rape victims, this secondary negative experience also has been termed "the second rape" or "re-rape" by some (Campbell & Raja, 1999; Patterson, 2011).

There is a growing body of literature which is suggestive of victims experiencing additional stress and trauma when they are not given adequate assistance by certain agencies (Campbell & Raja, 1999; Frazier & Hanley, 1996). For example, in an examination of rape victims, mental health professionals validated that secondary victimisation occurs (Campbell & Raja, 1999). In fact, Patterson (2011) highlighted that prior research points to the fact that almost half of rape victims are treated by law enforcement officials in ways that cause secondary victimisation. Other studies have highlighted that trials may have other negative psychological effects such as damaged self-esteem, a sense of hopelessness over future events, reduced social trust and trust in the legal system, as well as persistent ruminations about previously experienced injustices (Orth, 2002; Orth & Maercker, 2004).

Factors associated with retraumatisation or secondary victimisation potential

The verbal and nonverbal behaviours of system personnel can leave some victims feeling re-violated (Campbell & Raja, 1999). Although most of the research on secondary victimisation or retraumatisation is concerned with the negative impact of courtroom experiences, Parsons and Bergin (2011) rightly pointed out that for most victims of crime, police are usually their first contact with the legal system. In ideal circumstances, police address immediate needs for emergency services, inform

victims of their rights, explain the process for prosecuting a case, and make referrals to victim services (Frazier & Hanley, 1996; Parsons & Bergin, 2011). However, police do not always respond to victims' needs. Rather, it has been suggested that many survivors of crime do not receive the services they need from the police (Campbell & Raja, 1999). Studies have indicated that almost half of victims of rape who make a police report are then treated by the officers in ways they experience as upsetting (Filipas & Ullman, 2001).

Yet little is known of the reasons behind retraumatisation or secondary victimisation. In a literature review into secondary victimisation of rape victims by law enforcement officers undertaken by Patterson (2011), cold and unsupportive treatment by the police, being informed that their stories were unbelievable, or their cases not being considered for further investigation, being questioned regarding their sexual history and how they were dressed prior to their rape were examples of distressing experiences. Further, Patterson's (2011) investigation found that victims whose cases were eventually prosecuted described the detectives' treatment of them considerably differently than those with cases that were not prosecuted. For example, rape victims involved in nonprosecuted cases were more likely to describe the police officers with whom they interacted as engaging in behaviours likely to trigger secondary victimisation as opposed to behaviours that were more compassionate.

Research into criminal trials has found that confronting the perpetrator, having to remember and recall details of the crime, and facing people who were present at the time of the offense can all trigger secondary victimisation (Rothbaum et al., 1992). Researchers also have highlighted factors such as aggressive questioning regarding personal and traumatic events, assignment of blame, and questioning their credibility and reliability (Herman, 2003; Orth, 2002). Sexual assault nurse examiners (SANEs)

(Maier, 2012) have reported that charges not being filed, cases being postponed or dropped, unsatisfactory plea bargains, and victims' character and credibility being questioned are causes of revictimisation. Others have speculated that giving testimony about a criminal act places victims at significant risk of retraumatisation as it requires a detailed recollection and recounting of the original traumatic experience (Herman, 2003; Koss, 2000; Orth & Maercker, 2004; Whitcomb, 2003).

In contrast to the potentially negative experience of retelling traumatic experiences in challenging situations, it would appear that re-examination of traumatic experiences in therapeutic or controlled settings has the potential to be a positive experience for those engaging in these activities (Brabin & [Berah](#), 1995; Carlson & Dutton, 2003; Griffith, Resick, Waldrop, & Mechanic, 2003; McSherry, 1995; Newman & Kaloupek, 2004; Newman, Walker, & Gefland, 1999; Walker, Newman, Koss, & Bernstein, 1997). One such controlled setting is that offered by trauma research. There is evidence to suggest that disclosure of trauma-related experiences within a research setting is often followed by emotional relief and it is this relief that is identified by many participants as a benefit of participation (Newman & Kaloupek, 2004). Indeed, it was suggested that most research participants make favourable evaluations of their involvement in research. Associated negative experiences, such as distress, do not seem to detract from the reported positive nature of the overall experience. Certainly, trauma survivors have reported that they have derived benefits from participation in trauma research even when some distress is experienced (Griffin et al., 2003).

Therefore, it would appear that there are fundamental differences between the environments offered in therapeutic and research settings and those offered within the criminal justice system. Despite the lack of agreement about the nature and possible

effects of involvement in the criminal justice system for the victim, specific elements of the criminal process have been identified as having higher potential for psychological harm. The adversarial nature of the setting and the victims' need to prove victimisation have been identified as being detrimental to psychological adjustment (Herman, 2003; Parsons & Bergin, 2011). In contrast, it could be argued that therapeutic and research environments are supportive and safe, and do not require victims of crime to be challenged in a way that demands proof of victimisation.

CHAPTER 5
ANALYSIS 1: THE CRIME

Introduction

It is well understood that exposure to criminal victimisation can have a harmful effect on an individual's wellbeing. In fact, studies have recorded posttraumatic stress symptoms and psychiatric disorders in both adult and child victims following exposure to many types of criminal acts (e.g., Carlson & Dutton, 2003; New & Berliner, 2000; Robinson & Keithley, 2000). Specifically, researchers have been concerned with studying the connection between such crimes and different psychological disorders and trauma-related symptoms. Although the most widely studied conditions are PTSD and more recently ASD (Litz et al., 2002), other post-trauma consequences such as depression, grief, anxiety, sleep disorders, and substance abuse/dependence have been reported (Bailey & Whittle, 2004; Boudreaux et al., 1998; Carlson & Dutton, 2003; Hembree & Foa, 2003; Litz et al., 2002).

In response to the sometimes devastating impact of crime, researchers have been interested in exploring specific factors that cause victims to suffer posttraumatic distress. As such, there has been an increase in the amount of research suggesting that several factors contribute to whether PTSD symptoms develop following exposure to a traumatic event. Of particular note, a meta-analysis of sixty-eight studies by Ozer and colleagues (2003) found that seven factors significantly predicted posttraumatic stress symptoms or PTSD. These included a history of at least one other traumatic experience, psychosocial adjustment prior to the traumatic event, family history of mental illness, perceived life threat during exposure to the trauma, perceived social support in the aftermath of the event, peritraumatic emotional responses, and peritraumatic dissociation. Furthermore, their results suggested that of these pre-trauma, peri-trauma and post-trauma characteristics, peritraumatic psychological

processes, that is, processes that impact at the time of the traumatic event, are the strongest predictors of PTSD.

To appreciate the effect of these peritraumatic processes, it is necessary to explore the functions they have during exposure to a traumatic event. Factors such as cognitive schemas, the experience of actual or perceived threat, emotional responses (e.g., fear, anxiety, violation) and peritraumatic dissociation may be present during criminal victimisation and each of these have been found to contribute to physiological arousal and psychological suffering. Threat to life and emotional reactions are of particular interest in the current study, as they are two essential features when defining a traumatic stressor.

Although the most recent DSM stressor criterion (Criterion A) for PTSD (DSM-IV, APA, 1994) included these two peritraumatic features, the most noteworthy modification was in line with the recognition that an individual's perceptions are imperative. As such, both an objective and a subjective component should be considered, both of which an individual must meet in order to receive a diagnosis. The first element, Criterion A1, relates to the objective severity of the event. Here, the victim must have either directly or indirectly experienced an event that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others (APA, 2000; Long & Elhai, 2009). The second component, Criterion A2, concerns a victim's subjective response and, in accordance with this, a traumatic event is deemed as such if it induced negative emotional responses including intense fear, helplessness or horror during the victimisation experience (APA, 1994; Brewin, Andrews, & Rose, 2000; Kubany et al., 2010; Seidler & Wagner, 2006).

Risk of harm at time of crime

Results of studies investigating peritraumatic factors have shown that the level of threat a crime represents to the individual will influence recovery and, therefore, the experiences in the aftermath of victimisation exposure. Certainly, the DSM-IV (APA, 1994) reported that PTSD can develop when a person involved in a stressful event experiences some threat to their physical and/or psychological well-being.

For some time now, researchers also have generally agreed that different types of crime can generate varying levels of threat for each individual and, consequently, produce different rates of PTSD (Carlson & Dutton, 2003). Without doubt, rape represents an extreme stressor and studies undertaken even decades ago concluded that victims of rape experience significant psychological disturbance when compared to victims of other crimes (e.g., Boudreaux et al., 1998; Kilpatrick et al., 1989). Since this time, researchers have continued to find that rape is often a traumatic experience and, consequently, survivors are at risk of posttraumatic suffering. This is not surprising given the level of distress endured during rape exposure.

In fact, Epstein and colleagues (1997) suggested that the severity and intrusiveness of rape is highly related to the occurrence of PTSD. This is consistent with previously findings that childhood completed rape victims were almost twice as likely to develop PTSD (64%) when in comparison to child molestation victims who endured physical contact but no penetration (33%) and nearly six times as likely when compared to children who were exposed to sexual victimisation with no physical sexual contact (11%). It also has been consistently found that completed rape and the dangerousness of the crime as measured by life threat and physical injury sustained

are positively related to the experience of posttraumatic suffering (Epstein et al., 1997; Kilpatrick & Acierno, 2003).

Along with rape, other more serious forms of crime tend to be associated with greater objective risk to victims, thereby increasing the risk for the development of posttraumatic distress. In fact, studies considering crimes such as physical assault, especially if it is more violent, and IPV, which involves a wide range of violent acts, have reported a strong relationship between these types of criminal violence and the development of subsequent PTSD (e.g., Chemtob & Carlson, 2004; Johansen et al., 2007; Lilly & Graham-Bermann, 2010; Mertin & Mohr, 2000).

Of course it should be noted that not every individual exposed to severe victimisation develops psychological disturbances including ASD or PTSD (Semb et al., 2009). Even in the presence of objective indicators of threat, negative psychological outcomes are not inevitable.

Nevertheless, some studies have highlighted that victims of any crime are particularly at risk of the development of PTSD (Robinson & Keithley, 2000). Indeed, researchers have reported psychological disturbance following exposure to less severe crimes. This is in line with the evidence supporting the notion that low-magnitude stressors are capable of producing posttraumatic stress symptoms (Seidler & Wagner, 2006).

As a result, subjective threat to self has been identified as a defining characteristic of a traumatic event (APA, 2000; Breslau & Kessler, 2001), even when an objective risk of harm is absent. Early research of female crime victims conducted by Kilpatrick and colleagues (1989) concluded that perceiving a threat to life during a crime experience can significantly contribute to the development of PTSD even in the absence of objective risk. Since that study, researchers consistently have found that

subjective threat to life is an important predictor of postvictimisation psychological disturbance including depression, agoraphobia, obsessive-compulsive disorder, and social phobia (e.g., Boudreaux et al., 1998; Epstein et al., 1997; Kilpatrick & Acierno, 2003).

Peritraumatic emotional responses

Prior to the introduction of Criterion A2 in the diagnostic criteria for PTSD, Kilpatrick and his colleagues (1998) undertook a DSM-IV field trial to investigate whether to include a subjective component in the diagnosis. Using an exploratory factor analysis, their findings identified five peritraumatic factors, including, a panic-physiological arousal factor, a cognitive-fear factor, an interpersonal factor, a dysphoria factor, and a numbing-unreality factor. A strong association between each of the five factors and the subsequent development of PTSD also was found. In fact, they suggested that individuals often experience a range of intense peritraumatic reactions during exposure to traumatic events and that the more intense the peritraumatic responses, the greater the likelihood of later developing PTSD. Further, although those who were given a diagnosis of PTSD often experienced the peritraumatic reactions more intensely, the experience of these responses did not impact on PTSD prevalence rates (Kilpatrick et al., 1998).

Studies since this field trial have focused specifically on assessing Criterion A2 and its predictive utility. However, the research is limited and such studies have produced mixed results (Kubany et al., 2010). On the one hand, some studies have produced similar findings to the DSM-IV field trial (Kilpatrick et al., 1998), that inclusion of A2 does not significantly affect PTSD rates. For example, Breslau and

Kessler (2001) explored the impact of the revised stressor criterion on PTSD in a community sample of 2181 persons and discovered that most of those who had experienced a crime that met the requirements of Criterion A1 also experienced an intensely emotional Criterion A2 response. Further, PTSD rarely developed following traumatic events that did not involve intense fear, helplessness or horror. However, despite this, only a small proportion of participants who endured events that met both requirements of the stressor criterion developed PTSD, indicating a low positive predictive value of PTSD Criterion A2.

In a longitudinal investigation of Criterion A2, Brewin, Andrews and Rose (2000) initially reported that intense levels of fear, helplessness and horror were all strong predictors of PTSD. In this sample, reports of fear and helplessness were equally common and more prevalent than reports of horror. However, interestingly, Schnurr and associates (2002) reanalysed the data collected by Brewin, Andrews and Rose (2000) to find that the results, in actual fact, are consistent with other studies concluding that Criterion A2 is not a positive predictor of PTSD.

On the other hand, some studies have shown that fear, helplessness or horror can independently or collectively improve the prediction of PTSD development. For example, Roemer and associates (1998) examined emotional responses during potentially traumatising events and determined consequential PTSD symptomatology among undergraduate students. The results indicated that helplessness was significantly correlated with symptoms of PTSD. Interestingly, peritraumatic experiences of fear and horror were not significantly associated with posttraumatic stress symptom development (Roemer et al., 1998). Differences in these results could arguably be attributed to differences in samples used or the types of stressors investigated. Alternatively, McFarlane (2004) has speculated that low reports of

horror can be explained by the lack of language descriptors for horror. Specifically, although individuals know what horror feels like, he has argued we do not have the language capacity to adequately define or describe it, making it difficult for people to give an account of this experience.

More recently, Kubany and colleagues (2010) conducted a study of PTSD rates among individuals who met the Criterion A2 requirements. The main finding was that almost half of those who reported all three Criterion A2 responses (fear, helplessness and horror) developed PTSD. In fact, those who reported all three A2 responses were more than four times as likely to receive PTSD diagnoses than those who reported fewer than all three A2 responses. Thus, it was concluded that the prediction of which individuals are most likely to develop PTSD may be improved by consideration of the experiences of fear, helplessness and horror.

Therefore, the majority of findings so far have indicated that although Criterion A2 is associated with PTSD (Kilpatrick et al., 1998; Roemer et al., 1998), it may not positively predict the condition (Breslau & Kessler, 2001; Kilpatrick et al., 1998). However, the explanation for these results is not clearly understood. One suggestion is that in its current form, the Criterion A2 is too narrowly defined and requires an expansion of its definition.

Other researchers have emphasised that emotions other than fear, helplessness and horror may play an important role in predicting PTSD. For instance, emotions such as anger, sadness, humiliation and disgust have been identified as common peritraumatic responses (e.g., Andrews et al., 2000; Kilpatrick et al., 1998; Rizvi, Kaysen, Gutner, Griffin, & Resnick, 2008), depending on the nature of the traumatic stressor. Shame and guilt also have been shown to influence PTSD development (Ozer et al., 2003). However, the relationship between such emotions and subsequent

posttraumatic distress is not well understood because of the relatively limited research that has been devoted to this area (Kubany et al., 2010).

Some researchers have suggested the usefulness of separating the impact of emotions experienced during exposure to the trauma (i.e., peritraumatic) and those experienced in the aftermath of crime (i.e., posttraumatic) (Brewin et al., 2000; Semb et al., 2009). In support of this, peritraumatic emotions (called “primary” emotions) have not been considered to require extensive conscious appraisal but rather are the direct reaction to overwhelming circumstances (Grey, Holmes, & Brewin, 2001). Thus, fear, helplessness and horror are primary emotions that are experienced peritraumatically as they manifest without excessive cognitive evaluation. On the other hand, posttraumatic emotions (known as “secondary” emotions) differ in that they stem from more elaborate cognitive appraisals. Some researchers have proposed that secondary emotions such as guilt, shame and anger can negatively impact a trauma survivor’s recovery (Andrews et al., 2000; Semb et al., 2011; Ozer et al., 2003). More specifically, Dunmore, Clark and Ehlers (1999) highlighted cognitive factors such as appraisals of aspects of the assault and of the outcome of the assault as being associated with both the onset and maintenance of PTSD.

In a longitudinal study of victims of violent crime, Andrews and colleagues (2000) established that although cognitive-affective appraisals of shame and anger (with others) both independently contributed to the development of PTSD, shame was the only emotion that influenced the subsequent maintenance of posttraumatic stress symptoms. The authors also found that shame stemmed from peritraumatic perceptions of helplessness, acts of humiliation and fear of negative appraisal by significant others. Therefore, shame could be seen as involving more elaborate

cognitive appraisals than other peritraumatic emotions, suggesting a processing of emotional information on a secondary level.

Anger has been documented as both a peritraumatic and a posttraumatic emotion. On the one hand, there has been an increase in studies showing that anger is significantly increased following exposure to traumatic events and the severity of the anger is significantly related to the severity of PTSD (e.g., Orth et al., 2008; Riggs, Dancu, Gershuny, Greenburg, & Foa, 1992). This is not surprising given that the definition of PTSD includes irritability and anger outbursts among the diagnostic criteria. Despite this, the question has been raised as to the causality of the relationship between anger and PTSD (Orth & Wieland, 2006). For instance, some researchers have questioned whether anger increases because of PTSD symptoms, whether PTSD symptoms increase because of anger, whether anger and PTSD influence each other equally, or whether they are influenced by some outside variable (Orth et al., 2008). In a longitudinal analysis of crime victims, Orth and colleagues (2008) found that anger did not actually predict PTSD in crime victims, rather, PTSD predicted subsequent anger.

On the other hand, anger as a primary emotion has been documented by victims of trauma. For instance, a study examining peritraumatic responses indicated that trauma survivors with PTSD frequently included reports of periods of intense emotional distress while describing the details of their traumatic experience (Grey et al., 2001). Anger was among a range of emotions that victims described experiencing during exposure to their traumatic event. This is not surprisingly considering anger is a primitive response triggered during a fight or flight situation. In fact, it can be viewed as an adaptive reaction when individuals are confronted with some form of physical attack (Andrews et al., 2000). Thus, the severity of the anger felt can be

influenced by the extent to which the individual must focus on survival or protecting oneself from physical harm.

Previous research has also highlighted that a feeling of a loss of control or a sense of violation of the self can be devastating, even more so than the loss of personal property or the occurrence of bodily harm resulting as a consequence of exposure to threatening events (Frieze et al., 1987). In fact, Frieze and colleagues (1987) drew attention to the work of early researchers who suggested that in criminal victimisation, the central source of stress for the victim is the violation of self. Such researchers were noted to have stated that rape constitutes the most serious violation when compared to other types of criminal acts because, whether perpetrated by an intimate partner or a stranger, it evokes a strong sense of violation, vulnerability and powerlessness during the traumatic experience. Furthermore, it has been suggested that the degree of violation relates to symptom development, with the more violent assaults resulting in more negative psychological reactions of victims (Frieze et al., 1987).

The important role of perceived levels of control and the influence of such control on an individual's functioning has also been identified for some time now (e.g., Solomon, Regier, & Burke, 1989). On the positive side, researchers have determined that perceived control is related to enhanced emotional wellbeing, greater success coping with stress, better physical health and greater ability to make constructive change across a variety of situations (Thompson, Sobolew-Shubin, Galbraith, Schwankovsky, & Crozen, 1993). In a study undertaken by Thompson and colleagues (1993), cancer patients with higher perceptions of control generally were better adjusted and they suffered fewer and/or less severe depressive symptoms than those with lower perceived control.

On the other hand, low perceptions of control are assumed to have an adverse impact of individuals. In fact, the perception of control has been said to play a key function in the development of PTSD and other psychological conditions (e.g., Frazier, Steward, & Mortensen, 2004). For instance, Foa and colleagues (1992) formulated a model that indicated that the more uncontrollable and unpredictable an event is perceived to be, the greater the likelihood it will result in PTSD. Actually, they argued that perceptions of uncontrollability and unpredictability were so important they should be included in the DSM (Frazier et al., 2004).

Due to the recognised complexity of control as a construct, Frazier and colleagues (2002) developed a temporal model which differentiated between past, present and future levels of perceived control and their varied impact a victim's adjustment to trauma (Walsh & Bruce, 2011). According to the model, *past* control refers to perceived levels of control over the experience itself (e.g., Kushner, Griggs, Foa, & Miller, 1993). In fact, Walsh and Bruce (2011) further separated past control in cases of criminal victimisation into perceptions that he or she was in control during the trauma (behaviour self-blame), and perceptions that the perpetrator was in control during the crime (offender blame). The temporal model defines *present* control as perceived levels of control over current aspects of the event such as current symptoms or the recovery process as a whole. *Future* control includes perceptions of how much control the victim has over the course of an illness, whether or if the traumatic event happens again and control over outcomes (Frazier et al., 2011).

Although studies have shown that high perceived control is associated with post-trauma adjustment, depending on the type of control, it may also contribute to poor posttraumatic functioning (Frazier et al., 2004). Indeed, victims of sexual assault who report a high level of control during the trauma (past control) may blame themselves

and suffer greater distress as a result. In addition to holding themselves accountable (behavioural self-blame), rape victims may blame their offender for aspects of the assault and may experience greater levels of psychological distress as a result (Davis, Lehman, Wortman, Silver, & Thompson, 1995). Walsh and Bruce (2011) recently found that self-blame and offender blame may differentially impact the severity of PTSD and depressive symptoms.

Previous studies examining perception of control, including those on which the temporal model was based, suffer from methodological limitations including small and non-representative samples, failing to distinguish between different types of control, limited assessments of the relationship between control and PTSD, and exploring only one, often less severe event at a time.

There is increasing consensus that certain peritraumatic factors can increase a victim's physiological arousal and psychological distress, consequently contributing to the stressful nature of the victimisation experience. Further, studies investigating peritraumatic responses have demonstrated how the presence of strong, negative emotions at the time of the traumatic event can then contribute towards emotional processing and maintenance of symptoms after the traumatic event has resolved. In particular, the objective or subjective experience of threat, and peritraumatic emotional responses such as loss of control, violation and anger play essential roles during and after criminal victimisation.

However, the reasons different peritraumatic experiences affect victims in varied ways are complex and the studies investigating such factors have produced mixed results. Given this, there is a need to further examine the impact of such peritraumatic variables on victims' experiences of crime and their post-trauma adjustment. Thus, the aim of the current study was to examine the psychophysiological and

psychological reactions of victims of crime during exposure to a crime and compare these responses to their reactions while experiencing an emotionally neutral event. Further, a comparison was made between individuals who identified high subjective risk of imminent harm at the time of the crime with those who identified a low subjective risk of harm at the time of the crime with regard to their reactions to the crime.

The use of personalised, staged guided imagery scripts, which portrayed the participant's experience of victimisation, allowed for the recording of the individual's psychophysiological response at the time of the traumatic experience. The ability to access psychophysiological states using imagery that reflect the response at the time of the actual experience is well established (see Lang, 1979). The staged approach allowed for the identification of any changes in physiological arousal and/or emotional responses from prior to, during and immediately following the criminal experience. Visual analogue scales (McCormack, Horne, & Sheather, 1988) provided an indication of the emotional reactions experienced, stage by stage.

It was hypothesised that participants would demonstrate stronger psychophysiological reactions and psychological responses to the crime script in comparison to the emotionally neutral script. It also was hypothesised that participants would show higher psychological and psychophysiological reactions during the incident stage of the crime script. Further, it was hypothesised that those participants who reported high risk of harm, as evidenced by a subjective ratings of above 75 (out of 100) on a visual analogue scale, would experience significantly more negative psychophysiological reactions and psychological responses to the crime script, than those who reported a low risk of harm.

Method

Overview of study

This study used an intensive design with 43 participants in total who were recruited from advertisements within the University of Tasmania and in local newspapers. Thus, each of the participants was subjected to the same procedure and their data were then taken and analysed in different ways depending on whether they met the inclusion criteria for each analysis. All participants were exposed to criminal victimisation and attended a police interview and, therefore, were involved in the crime analysis and the subsequent police interview analysis. Only 19 participants gave evidence in court and, as a result, the court testimony analysis was made up of a subgroup of these participants.

The data consisted of posttraumatic stress scores from the Impact of Event Scale-Revised (IES-R) for the crime analysis, and psychological responses from Visual Analogue Scales (VASs) and psychophysiological reactions from the converted heart rate recordings for the crime, police interview and court testimony analyses. Repeated measures analyses of variance (ANOVA) was applied to this data in accordance with the designs of each analysis. This was followed by Huyhn-Feldt corrections and Fisher LSD post hoc analyses on the data that reached statistical significance. A significance criterion of .05 was used.

As a guided imagery methodology was used, ratings of clarity of imagery and accuracy of script content were assessed. The mean ratings and standard deviations are presented in Appendix A. Imagery ratings were considered to be within acceptable limits.

Analysis 1: The crime

Participants

Participants (N = 43) were victims of crime. Participation was based on the experience of a crime and consequent police interview. As stated, participants were recruited through advertisement on the School of Psychology, University of Tasmania website and through advertisement in the newspaper.

Not all participants had been exposed to crimes against the person although the majority had experienced such crimes (n = 40). A decision was made to include all participants' data because of an absence of significant differences between the groups that was evident from a preliminary analysis.

Group allocation was made on the basis of visual analogue scale ratings for subjective risk of imminent harm at the time of the crime with scores above 75 (out of 100) indicating high perceived risk of harm and scores below 75 indicating a low perceived risk of harm. More information about group allocation will be presented in the Results section.

The study had approval from the Tasmanian Social Sciences Human Research Ethics Committee. The information sheet and consent form are presented in Appendix B.

Design

Firstly, a 2 [script: crime, neutral] x 4 (stage: scene, approach, incident, consequence) within group design with repeated measures was used. Secondly, a 2 [group: high subjective risk, low subjective risk] x 2 (script: crime, neutral) x 4 (stage: scene, approach, incident, consequence) mixed factorial design with repeated measures was used. The dependent variables included the psychophysiological

measure of heart rate and the psychological ratings of threat, violation, loss of control, anger, and fear.

Materials and apparatus

A demographic questionnaire was developed in order to obtain personal information as well as specific details concerning the nature crime and time frames concerning the event. This questionnaire is presented in Appendix C1.

The IES-R (Weiss & Marmar, 1997) was used to gain information about intrusion, avoidance and hyperarousal symptoms experienced as a consequence of exposure to the crime. The self-report instrument consists of 22 questions to reflect the degree to which participants were distressed or troubled by these posttraumatic difficulties. Items were rated on a 5-point scale ranging from 0 (not at all) to 4 (extremely). The IES-R has been shown to have acceptable test-retest reliability and internal consistency (Creamer et al., 2003). This questionnaire is appended in Appendix C2.

Personalised imagery scripts were developed on the basis of the information supplied by the participants at interview in relation to the crime. An additional emotionally neutral imagery script was developed about an event such as making a cup of coffee for the purpose of comparison. Each script comprised of four stages: setting the scene (a description of the setting in which the event occurred), approach (a description of the moments leading up to the target event), incident (a description of the target event) and consequence (a description of the moments immediately after the target event). The imagery scripts represented a time-limited and consecutive series of experiences. Examples of scripts are presented in Appendix C3.

VASs (McCormack, Horne, & Sheather, 1988) were used to assess psychological responses associated with threat, violation, loss of control, anger, fear

and risk of harm. A Visual Analogue Scale (VAS) is an instrument that measures subjective characteristics or attitudes that cannot easily be directly measured but, rather, range across a continuum of values. Here, the VASs were a horizontal line, 100 mm in length, with descriptors at each end. Participants were required to mark on the line the point they believe represents their perception of their current state. These scales were scored from 0 to 100 with a higher score reflecting a more negative experience. The VAS score is determined by measuring in millimetres from the left hand end of the line to the point of the participant's mark. Control scales also were included to assess imagery clarity and the accuracy of the script content. In these cases, a higher score reflected better clarity and greater accuracy. Copies of VASs are presented in Appendix C4.

Psychophysiological recordings were made using a PC computer attached to a PowerLab Data Acquisition System using Chart software. Recordings were made using electrodes (one on each side of the torso and one on the mastoid process as the earth reference) to measure electrocardiograph (ECG) and to obtain a mean heart rate.

Procedure

Participants were interviewed to obtain details for the preparation of the imagery scripts. Specifically, they were asked to provide detailed information about their experiences during the crime and a neutral event. In addition, participants were asked to complete the IES-R in relation to the crime and a questionnaire to gather information in relation to demographics and event related experiences.

A second session was scheduled approximately one week after the interview. At this session, electrodes were applied and the individualised imagery scripts were verbally administered to the participant. A one minute baseline measure of heart rate was recorded while the participants had their eyes shut. The first stage of the first

script was then administered, followed by a 10 second pause before the commencement of the next stage of imagery. During this pause, participants were instructed to open their eyes and stop imaging the scene. Each stage of each script was approximately 60 seconds duration. This procedure was then applied to the following scenes of the script. Heart rate levels were recorded while the scripts were being administered.

After administering each script, participants were required to rate their responses to imagery within the scripts using the VASs. Participants were reminded of the content of each stage before ratings were made in relation to each of the four stages in each script.

The order of presentation of the scripts was counterbalanced across participants to prevent order effects. The participants were debriefed at the end of the second session.

Results

Description of sample

Descriptive statistics for the total sample are presented in Table 1. It should be noted that 9 out of 10 participants in the study experienced a violent or sexually-based crime and only 9.5% experienced a property crime.

Table 1

Descriptive statistics for the total sample of participants.

Variable type	Variable	Level		Statistic
Demographic	Sex	Female	%	78.6
		Male		21.4
Crime	Age in years		M s	36.6
				14.0
	Crime type	Property	%	9.5
		Armed robbery		9.5
		Violence		52.4
		Sexual		28.6
	Time since crime	<6 months	%	4.8
		6-12 months		7.1
		12-24 months		26.2
		>24 months		61.9
	No. of police interviews	One	%	43.9
		Two		39.0
		Three		12.2
		Four		4.9
	Time to police interview	Within 24 hrs	%	71.4
		<48 hrs		4.8
		<1 wk		4.8
		>1 wk		19.0
	Time to court	<6 months	%	47.4
		6-12 months		21.0
		>12 months		31.6
Response to crime	IES-R	Intrusion	M s	11.2
		Avoidance	M s	8.2
		Hyperarousal	M s	12.4
			M s	9.0
			M s	8.0
			M s	7.2

Reaction to crime

Initially, consideration was given to the psychophysiological and psychological reaction to the crime event.

Psychophysiological response to imagery

There was a significant script x stage interaction for heart rate, $F(3,126) = 5.3$, $MSE = 34.5$, $p < .002$. Figure 1 presents the mean heart rate for each stage of the two scripts. The mean heart rate and standard deviations are presented in Appendix 21.

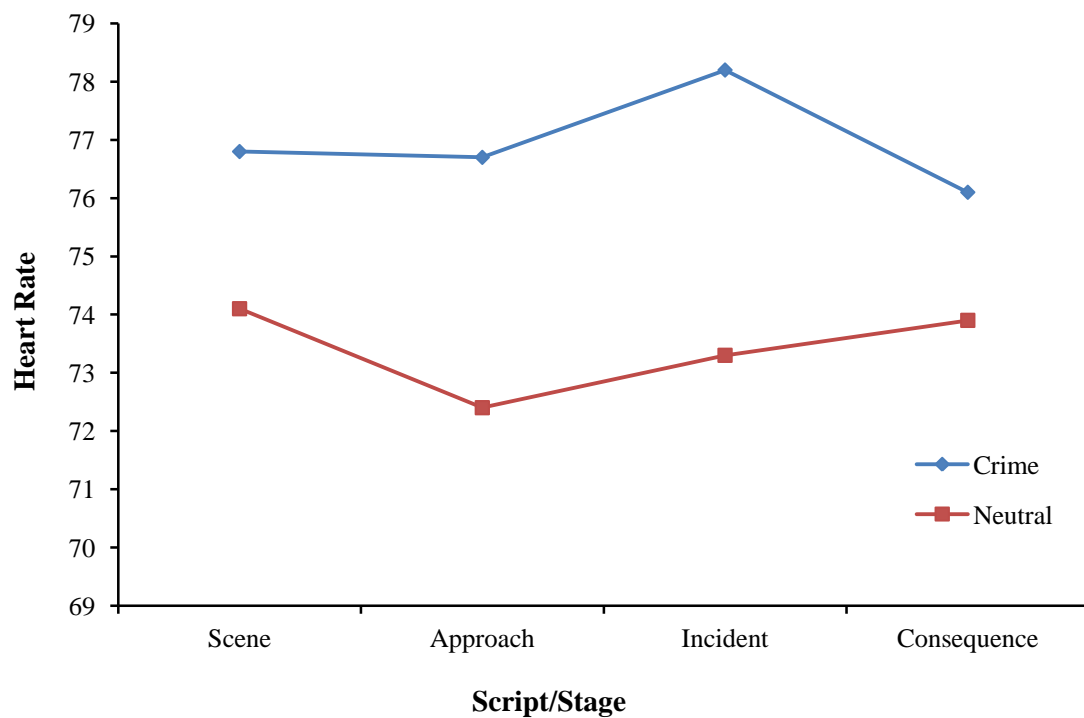


Figure 1. The mean heart rate for each stage of the crime and neutral scripts.

Initially, consideration was given to between script differences at each stage. The results of these posthoc analyses are presented in Table 2. At each stage, the crime script elicited a higher heart rate than did the neutral script.

Table 2

The results of posthoc analyses for between script differences at each stage of the crime and neutral scripts.

Stage	t	df	p	Differences
Scene	2.5	42	.02	C>N
Approach	4.3	42	.0001	C>N
Incident	4.6	42	.0001	C>N
Consequence	2.2	42	.04	C>N

Across stage changes for each script were then examined. The results of these analyses are presented in Table 3. For the crime script, there was an increase in heart rate from the approach stage to the incident stage with a subsequent decrease in heart rate from the incident stage to the consequence stage. For the neutral script, the approach stage elicited a lower heart rate than all other stages.

Table 3

The results of posthoc analyses examining across stage changes for the crime and neutral scripts (df=3,126).

Script	F	MSE	p	Fisher	Differences
Crime	3.2	34.2	.03	1.4	2<3;3>4
Neutral	6.2	23.9	.0006	0.8	2<1,3,4

Psychological response to imagery

Significant script x stage interactions were evident for the VASs measuring threat, $F(3,126) = 8.3$, $MSE = 16927.1$, $p<.0001$, violation, $F(3,126) = 119.7$, $MSE = 22618.0$, $p<.0001$, control, $F(3,126) = 56.7$, $MSE = 14926.9$, $p<.0001$, anger, $F(3,126)$

= 41.5, MSE = 13485.2, $p < .0001$, and fear, $F(3,126) = 77.2$, MSE = 17598.5, $p < .0001$. Figure 2 presents the mean ratings for each of the VASs for the crime and neutral scripts. The mean ratings and standard deviations are presented in Appendix 22.

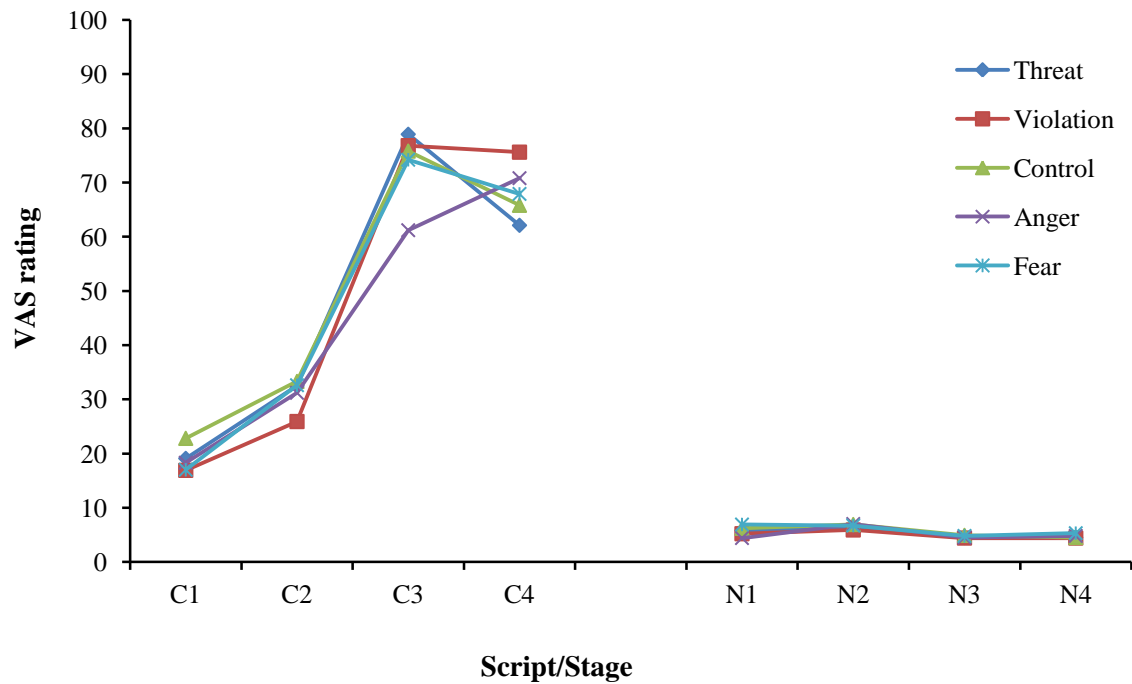


Figure 2. The mean VAS ratings for threat, violation, control, anger and fear for each stage of the crime and neutral scripts.

Consideration then was given to the differences between scripts at each stage. The results of these analyses are presented in Table 4. In relation to each VAS and at each stage, the crime script elicited a higher rating than did the neutral script.

Table 4

The results of the post hoc analyses of between script differences at each stage for the VAS ratings threat, violation, control, anger and fear (df = 42).

VAS	Stage	t	p	Difference
Threat	Scene	3.9	.0003	C>N
	Approach	5.6	.0001	C>N
	Incident	20.5	.0001	C>N
	Consequence	13.7	.0001	C>N
Violation	Scene	3.6	.0008	C>N
	Approach	6.0	.0001	C>N
	Incident	21.7	.0001	C>N
	Consequence	17.1	.0001	C>N
Control	Scene	4.3	.0001	C>N
	Approach	6.1	.0001	C>N
	Incident	18.1	.0001	C>N
	Consequence	14.4	.0001	C>N
Anger	Scene	3.8	.0005	C>N
	Approach	4.9	.0001	C>N
	Incident	11.0	.0001	C>N
	Consequence	14.6	.0001	C>N
Fear	Scene	2.6	.02	C>N
	Approach	5.5	.0001	C>N
	Incident	16.1	.0001	C>N
	Consequence	13.9	.0001	C>N

Across stage changes for each script for each of the VASs were then examined. The results of these analyses are presented in Table 5. There were no variations in ratings across the neutral script stages for any of the VASs. In relation to the crime script, lower ratings were made in relation to the scene stage than the approach stage, and for the scene and approach stages in comparison with the incident and consequence stages for all the VASs. In addition, the incident stage elicited higher ratings of threat and lack of control than did the consequence stages.

Table 5

The results of the posthoc analyses considering across stage changes for each script for the VASs threat, violation, control, anger and fear (df = 3,126).

VAS	Script	F	MSE	p	Fisher LSD	Differences
Threat	Crime	84.9	31990.8	.0001	8.3	1<2;1,2<3,4;3>4
	Neutral	1.0	33.3	ns		
Violation	Crime	118.3	43593.3	.0001	8.2	1<2;1,2<3,4
	Neutral	0.8	20.8	ns		
Control	Crime	59.7	27735.7	.0001	9.2	1<2;1,2<3,4;3>4
	Neutral	1.2	51.5	ns		
Anger	Crime	45.1	26169.4	.0001	10.3	1<2;1,2<3,4
	Neutral	1.6	63.6	ns		
Fear	Crime	95.7	32759.1	.0001	7.9	1<2;1,2<3,4
	Neutral	0.6	45.2	ns		

Influence of perceived risk to life

Of the total sample, 27 participants provided a rating of perceived risk to life at the incident stage of the crime script. To identify the participants with a high perceived risk to life, a mean rating for the 27 participants was calculated ($M = 73$). Participants with a score above the mean were considered to have endorsed a high risk to life as result of the crime event ($n = 18$). The responses of these participants were compared with the responses of the participants identified as endorsing a low risk to life ($n = 9$).

Psychophysiological response to imagery

There was no significant script x stage x group interaction or script x group interaction. The mean heart rate and standard deviations for the crime and neutral

scripts for the high perceived risk to life and low perceived risk to life groups are presented in Appendix 23.

Psychological response to imagery

No script x stage x group interactions were evident for any of the VASs. The mean ratings and standard deviations for the two groups in response to each stage of the crime and neutral scripts are presented in Appendix 24.

Script x group interactions were evident for threat, $F(1,25) = 11.3$, $MSE = 6896.0$, $p < .0001$, violation, $F(1,25) = 5.8$, $MSE = 3125.6$, $p < .03$, and fear, $F(1,25) = 10.5$, $MSE = 7575.2$, $p < .004$. The mean ratings are presented in Figure 3. The mean ratings and standard deviations are presented in Appendix 25.

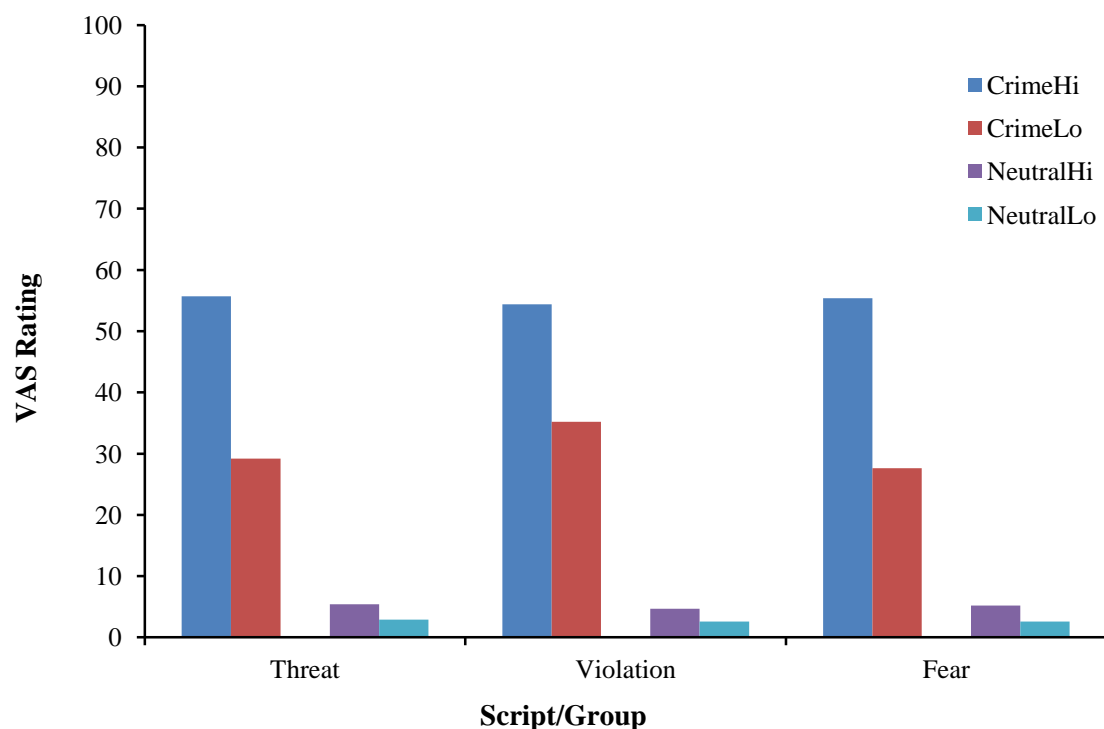


Figure 3. The mean ratings for threat, violation and fear the crime and neutral scripts for the high and low perceived risk to life groups.

When consideration was given to group differences in relation to each script, there was a significant difference between group in relation to the crime script for

threat ratings, $t(17) = 11.8$, $p < .0001$, violation ratings, $t(17) = 12.7$, $p < .0001$, and fear ratings, $t(17) = 10.6$, $p < .0001$. In all cases, the crime script elicited higher ratings than the neutral script.

Differences between scripts were then considered for each group. For both groups, the crime script elicited higher ratings than the neutral script for threat (high risk group: $t(17) = 11.2$, $p < .0001$; low risk group: $t(8) = 5.7$, $p < .0004$), violation (high risk group: $t(17) = 11.9$, $p < .0001$; low risk group: $t(8) = 6.7$, $p < .0001$), and fear (high risk group: $t(17) = 10.1$, $p < .0001$; low risk group: $t(8) = 5.5$, $p < .0005$).

Discussion

The present study highlighted the severity and intensity of peritraumatic responses of victims of crime during exposure to criminal victimisation, with particular reference to the impact of perceived risk to life on victims' crime experiences. Overall, as predicted, the results indicated that victims experienced strong psychophysiological reactions and psychological responses during their traumatic/stressful encounters, and perceived risk of imminent harm at the time of the events intensified some, but not all, of those reactions at different times throughout victims' experiences.

It is not surprising that the crime script elicited a more negative response than the neutral script at all the stages although it is testament of the stressful nature of the crime experience. In fact, the finding is consistent with the mounting evidence that exposure to criminal victimisation is a traumatic experience with the potential to cause psychological distress during its occurrence. It also adds to the research that multiple types of criminal victimisation have the potential to cause such distress.

Although the majority of participants in this study were subjected to personal crimes as opposed to property crimes, the types of criminal acts ranged from the more serious forms such as rape and violent assault, to less serious and/or violent crimes.

The results also add to the research that indicates that the stress caused by criminal victimisation is sufficient to cause posttraumatic stress reactions in individuals. In fact, there have been many previous studies that have documented an association between victimisation and the development of non-clinical psychological symptoms, and/or diagnosable conditions such as ASD and PTSD, depression, anxiety, sleep disorders, and substance abuse/dependence (Bailey & Whittle, 2004; Boudreaux et al., 1998; Carlson & Dutton, 2003; Hembree & Foa, 2003; Litz et al., 2002).

The fact that the crime script had a more adverse effect on participants than the emotionally neutral script is also consistent with previous studies that have specifically compared criminal victimisation with other forms of traumatic events, and those that have compared crime victims with nonvictim control groups (Naifeh et al., 2008; Norris & Kaniasty, 1994; Shercliffe & Colotla, 2009). The findings from such previous studies and the results of the current study are all indicative of the stressful nature of the crime experience.

The current findings also provide support for the personalised and staged guided imagery methodology and its capacity to document the distress levels of individuals during a wide range of traumatic and others experiences. In fact, this methodology has been successfully used to document psychophysiological and psychological responses in anxiety related behaviours such as self-mutilation (Haines, Williams, Brain, & Wilson, 1995), nail biting (Well, Haines, Williams, & Brain, 1999), stressful

work-related experiences (Haines, Williams, & Carson, 2002) and traumatic experiences such as motor vehicle accidents (Holmes, Williams, & Haines, 1998).

The staged approach to guided imagery has allowed for consideration of the development of responses over the course of an experience. For victims in this study, it was noted that in the early stages of the traumatic event, before the criminal action takes place, the nature of the experience was more negative than the emotionally neutral event. This is interesting given that it is most often the case that traumatic events have a sudden onset (APA, 2000), although, in this case, there must have been elements of the situation in which the person found themselves that were associated with indicators of the escalation of events to come, at least for some of the participants. This is true even though the mean ratings at the scene and approach stages were low.

This elevation in responses prior to the incident would likely depend on the exact nature of the victimisation experience. Arguably, the more threatening a criminal experience, the more likely even subtle indicators of threat may be present prior to the actual incident occurring. Alternatively, those with prior exposure to victimisation, especially victims of repeated trauma (e.g., intimate partner violence), may be more equipped to recognise signs of imminent threat in the lead up to a traumatic incident. For example, victims of IPV have been reported to be very sensitive to cues or indicators of imminent violent outbursts in their partners. The impact of the severity or type of trauma experienced and the influence on victims of repeated trauma leading up to a traumatic event would be an interesting focus for future research.

Of course, it is also the case that there was a significant increase in the negative ratings of psychological response from the approach stage to the incident stage. This

finding also was as hypothesised and is in line with the essential features of what constitutes a traumatic event. Firstly, events that are stressful in nature may have a reasonably sudden onset, thus, explaining the escalation in responses of participants at the incident stage when the crime was depicted. Further, research has indicated that individuals reliably experience certain intense emotions during exposure to trauma (APA, 2000). In fact, the DSM diagnostic stressor criterion stipulates that an individual must experience severe levels of fear, helplessness or horror in order to be diagnosed with ASD or PTSD. Further, studies have documented elevated levels of such psychological responses during exposure to criminal victimisation (e.g., Brewin, Andrews, & Rose, 2000). There also is increasing evidence that is suggestive of additional emotions being evident during criminal victimisation. The current study adds to this literature in that, in addition to fear, significant ratings of threat, lack of control, violation and anger were reported during the incident stage of the crime script.

Also worthy of note is that despite these elevations in responses occurring during the traumatic event, changes in these responses between the incident and consequence stages differed depending on the emotion. It was the case that it was only feelings of threat and lack of control that began to resolve after the crime incident stage. Even then, the overall ratings of threat and control were still at a high level at the consequence stage. Fear and violation did not begin to resolve. Although there was no significant variation in the ratings from the incident to the consequence stage for anger, it was the only rating of psychological response that increased at the consequence stage.

As a result of these differences in the way the psychological responses were rated, there is a need to consider these psychological responses in terms of their

meaning for the individual at the time of the experience of that emotional reaction. Certainly, any negative event, such as a crime, where there is a reasonably sudden onset, is likely to evoke a feeling of threat. This is characteristic of a fight or flight response that is triggered by a change in environmental or external conditions that signal the existence of an unstable or unpredictable situation. In general, the sense of threat is reflexive because it allows for the activation of a system that is designed to protect the individual from harm. Although, in a general sense, a perception of threat may be a misinterpretation of relevant stimuli, the sense of threat does allow for the person to ready themselves to act in a self-protective manner.

In the case of crime, the very nature of the evolving situation would warrant this self-protective response and the concomitant sense of threat. Particularly, when consideration is given to the way in which criminal actions and the perpetrators of crime are perceived. In general, it would be the case that many individuals would have a perception of the perpetrator of a crime as a person who could cause physical harm and threaten life. The perceived dangerousness of people who engage in criminal actions would be sufficient to evoke a threat response.

In general, a threat response lasts for the duration of the stressful event being experienced although there may be a less severe increase in threat as the elements of a situation started to become known and some residual sense of threat after the actual stressful situation had passed. The extent to which the sense of threat would resolve would be dependent, to some degree, on there being clear indicators that the risky situation had passed, that is, relatively clear offset or end. In terms of crime, this may be denoted by the backing away of an aggressive individual, the intervention of others who might assist or the realisation that nothing harmful is happening. Then, even in the presence of other strongly negative psychological responses, it would be expected

that the sense of imminent threat would start to dissipate. This appears to be what has happened with the significant reduction in ratings of threat at the consequence stage signifying recognition that the source of immediate threat was passing or was over.

When considering the sense of control, a similar pattern to the threat ratings was evident. As the criminal event evolved, participants reported increasing feelings of loss of control, peaking at the incident stage when the highest degree of threat was present. In general, it could be argued that a person's sense of wellbeing is linked to the extent to which they perceive they have control or mastery over life events. In fact, the importance of perceptions of control when coping during a traumatic experience has been evident in the research literature for some time (e.g., Solomon et al., 1989). Researchers have even developed a temporal model of control to signify the impact of control at different times surrounding a traumatic experience. Accordingly, the perceived sense of control over an experience itself has been termed *past control* by some (e.g., Frazier et al., 2002; Kushner et al., 1993). Such researchers have even argued that perceived uncontrollability during trauma (*past control*) is so important it should be included in the PTSD diagnostic criteria (Frazier et al., 2004). Undoubtedly, a person would not feel like they had much control over a situation while they were being exposed to the criminal actions of others.

At the end of a period of threat, it would be expected that a person would try to re-establish a sense of control or mastery as soon as possible because this should allow for the individual to end a state of disequilibrium. Of course, it is unlikely that regaining adequate levels of control would occur in the immediate aftermath of an event. Therefore, the reduction in the rating of lack of control at the consequence stage could be marking the start of a process of gaining back control now that threat has begun to pass.

Of course, this does not mean that feelings of fear would subside. It seems that a person can remain fearful even if imminent threat has passed and even as the process of regaining control is initiated. It may be the case that the focus of control changes. In fact, according to the temporal model of control, the perception of controllability following the cessation of the traumatic experience has been referred to as *future* control. Specifically, it describes individuals' control over posttraumatic stress reactions, whether the crime occurs in the future, or additional experiences in the aftermath of the crime (Frazier et al., 2011). Thus, in the case of victims of crime, particular post-victimisation concerns include, among many, whether the individual feels able to control future retaliation by the perpetrator or his/her associates and the processes or outcome of the criminal justice system activities should they choose to report their experience and become involved (Herman, 2003).

At the incident stage, the fear may be a reflection of the real degree of threat that accompanies certain traumatic events. Indeed, previous studies have documented fear-related transitory cognitions such as "I'm going to die" or "I'm going to be killed" during such traumatic events (Grey et al., 2001). Of course, many types of criminal victimisation could be sufficient to produce such fleeting thoughts, but particularly those of a more serious nature whereby the criminal action is directed at the individual.

The fear at the consequence stage of the script may reflect a more complex emotional response related to both the current situation and fears in relation to the immediate future, that is, what is likely to occur in the aftermath of the event just experienced. Certainly, fear of the ramification of current experience or fears related to events that may occur in the future are recognised processes. Again, specific

safety-related fears such as the threat of retaliation by the perpetrator or the perpetrator's family or friends are apparent here.

Similarly to fear, feelings of violation increased significantly as participants entered the incident stage from the approach stage, and such ratings remained high during the consequence stage of the crime script. This was as expected and, in fact, confirms the long-standing notion that feeling violated during criminal victimisation is a typical response given that the nature of crime carries the potential to evoke senses of vulnerability and powerlessness in individuals (Frieze et al., 1987). Unquestionably, for victims of personal crimes, the sense of violation relates more to their sense of self or their physical body being violated. For victims of property crime, the emotional response is a reaction to the violation, loss or damage of their personal property. Further, it is not surprising that feelings of violation continued in the immediate aftermath of the trauma. As the level of immediate sense of threat decreased, the victim would have some opportunity to start to reflect back on their experience during their stressful encounter. Thus, it seems likely that more time would be needed before feelings of violation could be more completely managed or even resolved.

A high level of anger also was evident during the incidence stage of the crime script, which was not surprising given the existing studies documenting anger as a peritraumatic response (e.g., Grey et al., 2001). In fact, anger at the time of a stressful or traumatic event may be triggered by the experience of that event itself. Of course, anger can be an early reaction to perceptions of threat during a fight or flight response. As such, the intensity of the angry feelings may be influenced by the extent to which the individual must focus on other issues such as survival or protecting oneself from physical harm (Andrews et al., 2000).

Further, the lack of resolution of the angry feelings at the consequence stage, indeed, the slight increase in angry feelings may reflect the more complex cognitive processing that occurs when the initial threat passes. In fact, some researchers have termed these emotional responses, that stem from more elaborate appraisals, secondary emotions (Brewin, Andrews & Rose, 2000; Grey et al., 2001). In general, an angry response is characterised by increased arousal in conjunction with cognitions related to victimisation and malicious intention. That is, thoughts associated with beliefs that a person has done something to cause harm and that they did it deliberately. Andrews and colleagues (2000) have studied this specific type of post-trauma anger, which they termed anger directed at others. In fact, in their study of victims of violent crime, they found that anger directed at others was associated with the subsequent development of PTSD.

It would seem that intention-related conclusions such as those mentioned previously could be reached only on reflection of the meaning behind the events being experienced. Of course, it is recognised that the period of reflection may be short which explains why people with anger control problems tend to react angrily within a very short period of time after provocation. Interestingly, for some, this increase in angry feelings, associated with the belief that one has been wronged, increases the likelihood that a victim will report their experience to the authorities (Greenberg & Ruback, 1992).

Overall, it seems that the pattern of psychological responses is consistent with predictions about the nature of a peritraumatic response to a traumatic or stressful experience that differed in a predictable way from responses to an emotionally neutral event. Further, the specific impact of psychological responses prior to, during and following victimisation added to previous research in an interesting way. On the

other hand, the impact of subjective risk to life on participants' experiences of trauma, which is next to be presented, went somewhat against predictions, but upon reflection was not surprising.

Although, perceived risk to life did not influence feelings of anger and loss of control, it had an effect on the way in which threat, violation and fear were experienced. Interestingly, though, was the fact that the effect was a more general one rather than a differential effect at identifiable stages of the experience of the crime. Therefore, in general, perceived risk to life increased the overall sense of threat, violation and fear.

The impact of perceived threat to life during the incident stage of the trauma script is not surprising. In fact, perceived risk to life has been identified as an essential component of a traumatic event and has been significantly related to the development of PTSD in multiple previous studies (Brewin, Andrews & Valentine, 2000; Ozer et al., 2003). It also is not difficult to understand why it impacted specifically on threat, violation and fear. If death was perceived to be imminent at the time of the perpetration of the crime it would be expected that the sense of threat would be increased and fear, accordingly, would escalate. The impact of this perceived risk would increase the sense of violation.

However, an account must be given of why the influence of perceived risk to life did not occur only at the incident stage or even in the aftermath of the crime at the consequence stage. It may be the case that the perceived risk to life at the time of the event heightened an overall perception of lack of safety, including in the lead up to exposure to the crime. In retrospect, participants may have identified earlier indicators as more threatening and fear evoking than they would have been experienced at the time the event was actually unfolding.

However, it may also be the case that the nature of the events that were associated with this greater perceived risk to life meant they were objectively more threatening and frightening events. In this way, the individual being exposed to this event may have been justifiably more sensitive to the indicators of dangerousness before, during and after exposure to the actual crime. This would be the case with crimes that are associated with an escalation of violation.

It is recognised that there has been a move away from objective risk as an indicator of the traumatic nature of events towards a preference for understanding the perception of dangerousness as being subjectively based. However, it is likely that there is a strong association between subjective perception of dangerousness and objective signs of dangerousness, at least for some experiences such as physical or sexual assault, even if the association is not absolute.

In summary, as expected, the current analysis demonstrated that victims of crime experienced more intense reactions during their victimisation experience than during an emotionally neutral event. When considering victims' experiences across the four stages of the event, they reported slight increases in negative psychological responses leading up to the traumatic event, however, these peaked during the actual crime and some, but not all, decreased immediately after the trauma. High perceived risk of harm during exposure to the crime only negatively impacted the severity some of the victims' psychological responses during their stressful experiences.

CHAPTER 6

ANALYSIS 2: THE POLICE INTERVIEW

Introduction

The success of any criminal investigation relies on the information that the police gather from different sources. One important source of information for police officers, when obtaining accurate descriptions of crimes, is the victims themselves. Without this information, the rights of crime victims' cannot be protected, the suspect(s) cannot be charged, the relevant people cannot be rehabilitated, and the investigation is likely be dropped (Holmberg, 2004).

Thus, the decision as to whether or not to report a crime to police is an important one for victims following criminal victimisation (Greenberg & Beach, 2004). However, despite knowledge of its importance, not all victims notify the police of their experience. Furthermore, the proportion of victims who report their incident to police varies depending on the type of offence. For example, the Australian Bureau of Statistics (ABS, 2010) has indicated that certain types of crime are more likely than others to be reported to the police. According to their 2009-2010 statistics, household crimes were more likely to be reported to authorities when compared to personal crimes. In fact, theft of a motor vehicle was the crime most often reported to the police, with a ninety percent reporting rate in 2009-2010. Reporting rates of malicious property damage, attempted break-ins and other theft also increased since 2008-2009. However, reports of motor vehicle theft dropped from eighty-seven percent in 2008-2009 to seventy-six percent in 2009-2010. Reports of break-in also declined from seventy-six percent to 42 percent in 2009-2010. Incidents of personal crimes reported to police increased from 2008-2009 to 2009-2010 across all crime types. Most noteworthy, reporting rates of robbery increased from thirty-seven percent to sixty-one percent. The reporting rate for physical assault

was fifty-one percent, thirty-two percent for threatened assault, and thirty-seven percent from victims of sexual assault.

When examining reasons why some victims did not report their crime experience(s) to the police, the responses also differed depending on the crime type. In most cases of household crimes, respondents reported failing to notify police because of the belief that the incident was too trivial, or there was nothing the police could do. A small percentage of these respondents reported that their reason for not reporting their crime related to views that the police would be unwilling to assist them. When considering personal crimes, the main reason for victims of threatened assault not reporting their crime to police was because of the belief the police would be unwilling to help. In a small percentage of cases, physical assault victims and threatened assault victims chose not to report their incident to police because of the view the incident was unimportant, it was a personal matter, they informed someone other than the police, or because of fear of reprisal or retaliation (ABS, 2010).

Many researchers have been in agreement that the decision to report or not to report criminal activity to police is influenced by a range of complex factors (e.g., Carcach, 1997; Felson, Messner, Hoskin, & Deane, 2002; Greenberg & Beach, 2004; Greenberg & Ruback, 1992; Tarling & Morris, 2010). For example, in an article by Carcach (1997) on reporting crime to the police, reference was made to a host of factors including individual characteristics of the victim, opinion regarding the seriousness of the crime itself, previous experiences of crime, the relationship between the victim and the offender, and the possibility of claiming compensation or private insurance payments for personal harm or property damage/loss. Thus, victims were considered to be less likely to notify the police when they believed their crime was too trivial or unimportant, in cases where nothing was stolen, when someone else

told the police, when the victim did not want the offender punished, when the victim was afraid of reprisal or revenge at the hands of the perpetrator, when the victim informed someone else about the incident, when the victim did not have insurance, or when the victim was too confused and upset by the trauma (Carcach, 1997).

In a more recent paper, Tarling and Morris (2010) stated that the seriousness of the offences remains the most important factor in influencing a victim's decision to notify the police of their experience. For instance, they highlighted that completed crimes as opposed to attempted criminal acts, property crimes which involve loss, and violent assaults which involve injury are more likely to be reported. In fact, they suggested that as the value of property loss or the severity of injury increases, so too does the likelihood of the crime being reported to the authorities (Tarling & Morris, 2010).

In addition to research which has highlighted the association between characteristics of the victims themselves or the actual criminal act and police reporting rates, other researchers have emphasised the importance of general feelings about the police and the criminal justice system in relation to a victim's decision to report (Carcach, 1997). Freedy and colleagues (1994) also have suggested that fears of negative social reactions as a consequence of reporting, being believed or not, and temporarily losing control often influence a decision of whether or not to notify the authorities of a criminal experience. In fact, it has been documented that those who predict there will be more extensive adverse events (i.e., potential for secondary traumatisation) than there will be positive experiences (i.e., an empathic officer), are less likely to choose to become involved in a criminal investigation (Holmberg, 2004; Parsons & Bergin, 2010). For instance, in a study of female victims of domestic violence, decisions about whether to report their crime experience related to previous

involvement with the police. Specifically, past negative experiences with the police were correlated with underreporting rates (Fluery, Sullivan, Bybee, & Davidson, 1998).

If victims decide to report their experience to the police, they are then required to undergo at least one type of formal interview. During this interview, the information that police collect from victims must detail what occurred and when the crime occurred, how it was completed, and why it was carried out (Holmberg, 2004). The victim usually can expect to be asked to describe the incident in detail before being asked specific questions by the police officer(s) in order to clarify information provided in their statement or to fill in any omissions.

However, concern about the treatment of victims by legal professionals, including police officers, has been evident in the literature for more than three decades (Tomz & McGillis, 1997). Further, although much of the research pertaining to victims' involvement in the criminal justice system is devoted to the impact of courtroom attendance on female victims of rape or child victims sexual assault (Parsons & Bergin, 2010), there has been an increase in the number of researchers who have documented the harmful effects of the insensitive treatment of victims and witnesses by police officers (e.g., Foley & Terrill, 2008; Maddox, Lee, & Barker, 2011; Tomz & McGillis, 1997). For instance, Campbell has been an influential researcher in this field, demonstrating across multiple studies the negative effects of interactions with police officers on rape victims' posttraumatic stress symptoms (e.g., Campbell & Raja, 1999; Campbell, 2005, 2006).

Thus, in addition to suffering psychological distress from the actual crime itself, there is some research that suggests that victims of crime may also experience additional stress in the aftermath of the crime in the form of maltreatment by police

officers during police interview (often termed secondary victimisation). However, not all victims of crime have adverse experiences when interacting with law enforcement. In fact, there have been reports of victims responding in positive ways (Patterson, 2011; Stephens & Sinden, 2000).

Further, there is a lack of consensus why some victims respond in a negative way and others do not (Patterson, 2011). There is some research evidence to suggest that regular and frequent interviews with the police may have a negative effect on the victim of crime. At a time when victims feel a need to limit their exposure to specific reminders of their traumatic experience, police interviews demand victims re-tell their experiences and this potentially can undermine victims' adaptive efforts to avoid unnecessarily reliving the unpleasant memories that result in high levels of arousal and distress (Herman, 2003; Tehrani, 2002). In fact, Esposito (2005) has suggested that the retelling of a sexual assault, regardless of to whom one is disclosing, can be an emotionally stressful event. Among suggested reasons for this has been the notion that discussing an event might obstruct the brain's normal processing of a traumatic memory. Through naturally swapping between avoidance and intrusion, the brain can limit exposure and habituate to trauma stimuli, decreasing the sensitivity to additional stimuli (van Emmerik, Kamphuis, Hulsbosch, & Emmelkamp, 2002). Therefore, increasing a victim's awareness of their distress or having them relive an event in the immediate hours or days after the incident might be harmful (Esposito, 2005).

Alternative reasons that have been proposed relate to the timing of police interviews and the fact that police officers can be a victim's first point of contact when seeking assistance or justice. Therefore, ideally, these law enforcement officers have the responsibility to attend to the victims' needs. For example, a victim may require assistance from emergency service or other medical personnel, a referral to

victim services, and information regarding their rights and the process if the case continues (Frazier & Hanley, 1996; Parsons & Bergin, 2011). Yet, police do not always respond to victims' needs during and after formal interviews. Certainly, it has been documented that many survivors of crime do not receive the services and support they require from the police (Campbell & Raja, 1999).

Indeed, in fairness, it could be argued that these functions are not the primary goal for police officers. If consideration is given to their roles as law enforcers and investigators, social services may not be identified as an appropriate function for police officers. In fact, it has been suggested that legal professionals are often instructed to treat victims unresponsively in order to proceed quickly with a case. As a result, they may consider this behaviour as a normal part of their job (see Campbell & Raja, 2005). However, lack of social support has been associated with an increased risk of PTSD in victims (e.g., Brewin, Andrews, & Valentine, 2000; Ozer et al., 2003). For instance, in two noteworthy meta-analyses undertaken by Ozer and associates (2003) (sixty-eight studies) and Brewin, Andrews, and Valentine (2000) (seventy-seven studies), lack of social support was deemed a strong predictor of PTSD. Actually, Brewin and his colleagues found that of the fourteen risk factors they assessed, lack of support was one of the strongest PTSD risk factors, with greater effects on posttraumatic stress symptomatology in comparison to risk factors that were evident before trauma exposure. However, the main downfall of such research is that many studies assessing the influence of social support on posttraumatic stress symptoms focus solely on sexually abused children, and female rape and IPV victims (Andrew, Brewin, & Rose, 2003; Johansen et al., 2007).

Support satisfaction

There is increased recognition in trauma research that victims often seek social support from others in the aftermath of trauma (Greenberg & Ruback, 1992; Norris et al., 1997) to assist them manage the psychological distress that results from their experience (DeValue, 2005). In fact, research has shown that receiving positive social support during post-trauma recovery relates to better adjustment as it acts as an important protective factor that may reduce general stress symptoms (Johansen et al., 2007). Specifically, it has been suggested that victims benefit from discussing their traumatic experience with others (Herman, 2003; Norris et al., 1997). For instance, some individuals have been noted to want to share their story with others, express their feelings about their experience and make sense of the victimisation. Further, some have indicated that their tendency to want to discuss the matter may not only be an attempt to gain understanding about the incident, but to also normalise their emotional or behavioural reactions (Greenberg & Ruback, 1992).

Social support has been defined as “the degree of emotional and instrumental support received by a person from the people in his or her environment” (Maercker & Muller, 2004, p. 346). Although, there is also the recognition that other types of social support exist in addition to emotional and instrumental (or tangible) support, including appraisal and informational support. In fact, social support was first categorised into these four distinct types some time ago (House, 1981). According to this categorisation, emotional support involves esteem, concern and listening, with a focus on the victim’s feelings and emotional reactions. Appraisal support differs in that the focus relates to social comparison, affirmation and feedback, and is useful in assisting the survivor make sense of their experience. Informational support mainly

focuses on providing victims with advice and suggestions. Finally, instrumental support is concerned with more tangible assistance such as money, shelter, time or effort (Malecki & Demaray, 2003).

Thus, along with the acknowledgement that there are varying types of social support, there also is the recognition that this support can be obtained from different sources. For instance, natural (also referred to as informal) support refers to the assistance victims receive from family, friends and peers, whereas professional (also known as formal) support is obtained from individuals such as police, medical professionals and mental health workers. Not surprisingly, police and other criminal justice professionals may offer victims different types and levels of support in comparison to what may be provided by natural supports. In fact, some have suggested police and other criminal justice professionals may provide support through supplying information or investigating the victims' case. Indeed, it has been noted that the police may not present as emotionally supportive (Norris et al., 1997) given the nature of the tasks police officers must undertake. The perceived lack of emotional support from investigating police officers may be confusing for victims if their expectation is that police officers will be a source of such support.

Of course, a distinction needs to be made between victims' perception of the availability of support and victims' perception of the adequacy of the support they actually receive, that is, support satisfaction. Andrew and associates (2003) studied male and female violent crime victims and considered the impact of social support levels on PTSD symptoms. In addition to finding differences between males and females, their results indicated that perceived support satisfaction was more strongly linked to posttraumatic stress symptoms than actual positive support received. That

is, a negative association has been demonstrated with greater support satisfaction being related to less severe posttraumatic stress symptoms.

Further, in a comparison of violent and nonviolent crime posttraumatic experiences, Green and Pomeroy (2007) also differentiated between perceived and received social support. They noted a difference in the amount of support received by the two crime types, with victims of violent crimes receiving more support from others. They suggested that this differential experience of social support received may relate to beliefs held by the providers of social support about victims' need for support. For instance, some may believe that nonviolent crime victims do not suffer distressing posttraumatic stress reactions and, therefore, do not offer them needed support.

Police may fail to meet the needs or expectations of victims in terms of the provision of adequate support. This may be disturbing for victims of crime. In the study of victims of violent crime previously mentioned, Andrews and colleagues (2003) investigated the impact of different types of and satisfaction with social supports on posttraumatic stress symptoms. The availability of others, confiding in others, emotional support, practical support, negative response, and satisfaction with support were specifically considered. The results indicated that although males and females reported similar levels of positive support and support satisfaction within one month of the crime, females reported a greater level of negative supports (i.e., responses) from friends and family when compared to males. Further, negative response and level of support satisfaction were significantly associated with PTSD symptomatology. In an alternative study, Ullman and Filipas, (2001) examined the difference between negative and positive social support on female victims of violent crime. Specific negative social reactions under investigation included victim blame,

treating the victim differently (e.g., stigmatising responses), distraction (e.g., telling victims to move on and stop talking about their experience), egocentric reactions, and controlling responses. It was found that negative social reactions had a more adverse impact on posttraumatic stress symptoms when compared to an absence of positive social support. Each of the negative forms of behaviour under investigation was associated with greater severity of PTSD symptoms.

Need to prove victimisation

There has been an increase in literature that identifies police officers' behaviour, both verbally and nonverbally expressed, as an important factor contributing to victims' positive or negative experience during a police interview (Stephens & Sinden, 2000). Studying such experiences is important as they can impact on victims' decisions whether or not to continue with a police investigation. For instance, Shoham (2000) undertook a study of the experiences of battered wives during their encounters with the police. The study found that predominant reasons for victims withdrawing their complaint and not continuing included situations where the police did not treat the case seriously enough, where police seemed to side with the perpetrator of the assault, or where the women sensed that the police were not understanding of their situation.

Victim experiences during the police interview also are important as they may positively or negatively contribute to victims' posttraumatic psychological state. For example, Stephens and Sinden (2000) studied victims of domestic violence and their experiences with the police. They identified that when police officers treated victims with respect and showed attention and concern, through listening, being empathic,

sympathetic and helpful, victims of crime viewed the interview experience as positive. On the other hand, a perceived negative attitude of the interviewing officer and their specific questioning style may ultimately leave a victim feeling the need to prove they were victimised resulting in an increase in distress (Campbell & Raja, 1999). For instance, when police officers minimised the situation by downplaying the seriousness of the event, seemed to disbelieve the victim (e.g., shown by verbal challenges and accusation), did not care (e.g., they appeared to be unmoved by the victim's story and/or solely focused on facts), and acted "macho" (e.g., by being rude and displaying arrogance), the victim perceived the interview experience as a negative one (Stephens & Sinden, 2000). These negative behaviours were similar to the ones assessed in Ullman and Filipas' (2001) examination of the impact negative social reactions can have on female violent crime victims. Here, the negative social reactions of individuals increased the severity of victims' posttraumatic stress symptoms.

Additionally, such negative attitudes, and the reported inconsiderate and uncaring questioning styles adopted by police officers as a cause of potential distress in victims of crime also have been documented in other studies (e.g., Tomz & McGillis, 1997). According to sexual assault nurse examiners, police can contribute to victims' distress through failure to approach questioning their victims in a sensitive way, by asking questions that are victim-blaming, and through failure to progress with investigations (Maier, 2012). Failure to progress with investigations also has been documented as a particular concern to victims of cyber gender harassment, whose cases are not readily considered as an offense by police (Halder & Jaishankar, 2011).

In a study of sexual assault victims undertaken by Campbell and Raja (2005), the authors found that most victims who sourced assistance from the legal or medical system reported that victim-blaming behaviours engaged in by professionals left them

feeling guilty, depressed, anxious, distrusting of others, and hesitant to seek further assistance. Of specific concern for a victim exposed to the negative demeanour of a police officer is the resulting lack of trust in that particular police officer. As a consequence, this lack of trust can potentially damage the interaction between the interviewer and victim, ultimately alienating the victim (Stephens & Sinden, 2000). Maddox and colleagues (2011) also have documented that unempathic police officers can result in a decreased likelihood victims will proceed in taking a case to court, thereby preventing them from gaining justice.

Some researchers have suggested police officers' behaviour, such as the use of victim-blaming questions, is influenced by their perceptions of whether the victim represents a stereotyped or "real" victim (Maier, 2012; Patterson, 2011). For instance, victims who are regarded as credible and, therefore, seen as being truly harmed and blameless, are reportedly treated more positively by police officers than those who are not perceived in this way. However, feeling personally blamed or stereotyped as not a "real" victim can be distressing for such individuals. Indeed, these views held by police officers are problematic for a number of reasons and may be based on an assumption that distress manifests only in one particular way. Such stereotyping by police officers can determine whether they initiate an investigation into the crime or make an arrest (Maier, 2008). Thus, if a victim is regarded as authentic and believable, the police are more likely to proceed with the case in comparison to situations where a victim is not considered genuine.

Thus, given the existing common stereotypes of rape victims in the general public, behavioural responses of others which portray a victim-blaming attitude is of particular concern for such victims (Maddox et al., 2011). In fact, rape victims have been noted as having an increased risk of secondary victimisation through biased

perceptions of their credibility (Hackett, Day, & Mohr, 2008). For instance, in cases where no weapon was used during the rape, the perpetrator of the rape was an acquaintance of the victim, the victim was intoxicated, or the victim waited before reporting the crime, victims are often viewed as less credible and, therefore, were more at risk of secondary victimisation (e.g., Campbell & Raja, 2005; Foley & Terrill, 2008). Additionally, in a poll carried out in the UK in 1995, 26% of respondents reported their belief that women were partially or completely responsible for being raped if they wore provocative or revealing clothing, and 22% saw them as responsible if they had multiple sexual partners (see Maddox et al., 2011). Furthermore, a survey of police officers found that more than half of the sample still held views that men cannot stop themselves once they commence sexual intercourse, rape is simply “rough sex”, and women change their minds about whether consent has been given once the effects of alcohol or other substances have worn off and they are no longer intoxicated (Campbell & Johnson, 1997).

As a further result of stereotyping, victims also are susceptible to aggressive interviewing techniques, which incorporate victim-blaming questions, by police officers (Maier, 2008). For example, asking the victims about their attire at the time in question, their use of alcohol or drugs, the degree of resistance they utilised, their prior sexual history (including previous sexual encounters with the alleged perpetrator), and the degree to which the victim “led on” or antagonised the alleged perpetrator, can leave the victim feeling upset and blamed for the offence (Campbell & Raja, 2005; Maier, 2012), thus, triggering secondary victimisation. Furthermore, prior research has documented that experiencing secondary victimisation is associated with higher levels of psychological distress, and an increase in posttraumatic stress

symptomatology (e.g., Campbell & Raja, 1999), as well as victim reports of self-blame and feeling dehumanised (Campbell & Raja, 2005).

Given the abovementioned research, it is clear that further research needs to be devoted to examining the nature of the police interview with a particular focus on the specific aspects that make involvement a positive or negative experience for victims of crime. In its current state, research has suggested there are specific aspects of the police interview and not only the retelling a stressful or traumatic memory in an unsupportive environment that are problematic for victims. In particular, it has been suggested that a need to prove victimisation can make the police interview a negative experience (e.g., Foley & Terrill, 2008; Maier, 2008; Maddox et al., 2011). Secondly, it has been speculated that there is a lack of understanding by interviewees about the function of police interviews as an information gathering exercise resulting in an expectation that police officers should provide more solace and support (Regehr et al., 2008). Therefore, it is the aim of the current study to compare the experiences of those who did and did not perceive a need to prove victimisation during the police interview. In addition, a comparison will be made between those who were and were not satisfied with the level of support offered by interviewing police officers.

It was hypothesised that participants would elicit stronger psychophysiological responses and psychological reactions to the crime script than the police script but that both traumatic scripts would elicit stronger reactions in comparison to the emotionally neutral script. It also was hypothesised that those who perceived a need to prove victimisation during the police interview would react more strongly than those who did not perceive a need to prove victimisation during this criminal justice activity as evident in the psychophysiological and psychological responses. In addition, it was hypothesised that those who did not feel satisfied with the level of support they

received from the police would suffer significantly higher psychophysiological and psychological reactions than those who felt satisfied with the level of support offered by the police during the police interview. Furthermore, it was hypothesised that participants would experience elevated psychological and psychophysiological responses relative to the emotionally neutral event. Finally, it was hypothesised that there would be an increase in psychophysiological and psychological reactions of participants during the incident stage of the stressful/traumatic script.

Method

Participants

This investigation involved all 43 participants who had been victims of crime and then attended a police interview regarding their traumatic experience. Initially, group allocation was made on the basis of self-reported need to prove victimisation during the police interview. Subsequently, participants were allocated to groups based on their rating of satisfaction with police officer support during interview. Group allocation is discussed further in the Results section.

Design

This study employed a 3 (script: crime, police interview, neutral) x 4 (stage: scene, approach, incident, consequence) within group design with repeated measures. Additionally, a 2 [group: need to prove victimisation, no need to prove victimisation] x 3 (script: crime, police interview, neutral) x 4 (stage: scene, approach, incident, consequence) mixed factorial design with repeated measures. In addition, a 2 [group: support satisfaction, support dissatisfaction] x 3 (script: crime, police interview, neutral) x 4 (stage: scene, approach, incident, consequence) mixed factorial design with repeated measures was used. The dependent variables include the

psychophysiological measure of heart rate and the psychological ratings of threat, violation, loss of control, anger, and fear.

Materials

The crime and emotionally neutral imagery scripts from analysis one also were used along with an additional personalised script that was developed on the basis of the information obtained with respect to participants' experiences during a police interview. Questions were asked in relation to perceived need to prove victimisation, support satisfaction offered by interviewing police officers, focus of the police interview and the provision of information about support services. The police interview script included four stages just as did the crime and neutral scripts (see analysis one for a description).

The same visual analogue scales (VASs) that were used in analysis one, which measured threat, violation, loss of control, anger, and fear, also were used to elicit information regarding psychological responses during the police interview (see analysis one for a further description).

Psychophysiological recordings of heart rate were taken in the same way as for analysis one.

Procedure

During the initial interview (described in analysis one), additional information was obtained about police interview experiences for the purpose.

Then during the second session, the procedures applied to the crime and neutral scripts, outlined in analysis one, were applied to the additional police interview script.

Data Analysis

See analysis one for a description.

Results

Reaction to police interview

Consideration initially was given to the interaction of the crime, police interview and neutral scripts with consideration to stage changes.

Psychophysiological responses to imagery

There was a significant script x stage interaction for heart rate, $F(6,252) = 2.4$, $MSE = 18.3$, $p < .03$. This interaction is presented in Figure 4. The mean heart rate and standard deviations for each stage of the crime, police and neutral scripts are presented in Appendix 26.

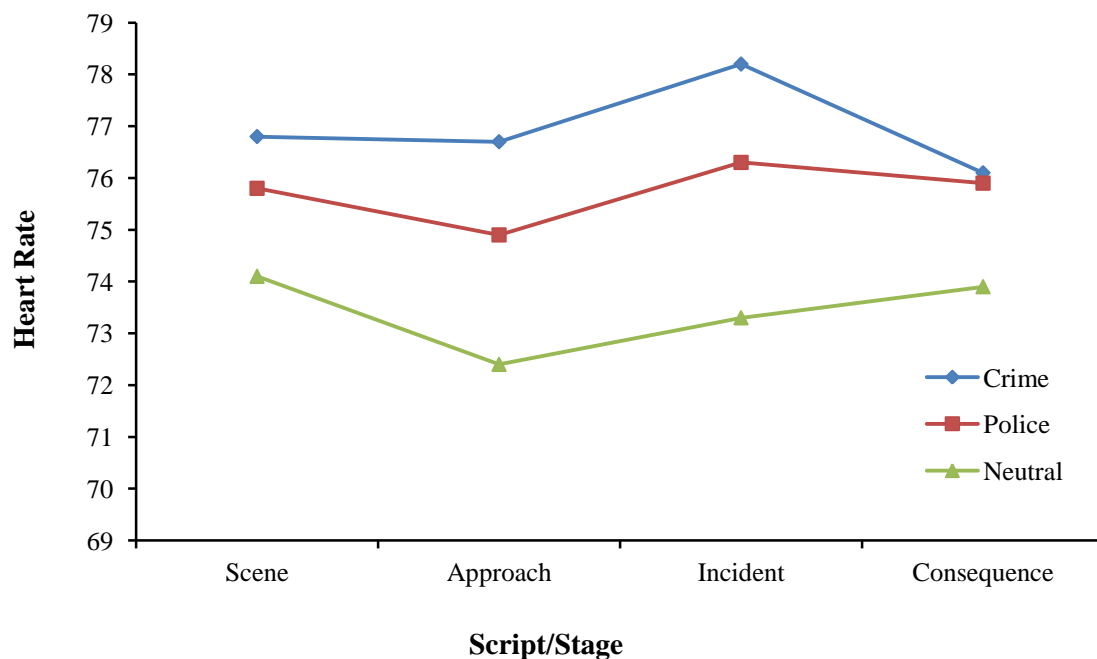


Figure 4. The mean heart rate for each stage of the crime, police and neutral scripts.

Between script differences at each stage were considered. The results of these analyses are presented in Table 6. When considering those differences involving the police interview script, it was evident that the police and crime scripts elicited higher heart rate than did the neutral script at the approach and incident stages.

Table 6

The results of posthoc analyses of between script differences at each stage for heart rate ($df = 2,84$).

Stage	F	MSE	p	Fisher	Differences
Scene	3.9	84.5	.03	2.0	C>N
Approach	8.9	200.3	.0003	2.0	C,P>N
Incident	10.9	265.5	.0001	2.1	C,P>N
Consequence	2.9	66.4	ns		

Across stages changes for the police script were then considered. Across stage changes for the crime and neutral scripts were presented in the previous chapter. There were no significant across stage changes for the police interview script.

Psychological response to imagery

There were significant script by stage interactions for threat, $F(6,252) = 40.5$, $MSE = 9591.7$, $p < .0001$, violation, $F(6,252) = 44.8$, $MSE = 12847.4$, $p < .0001$, control, $F(6,252) = 31.4$, $MSE = 9588.0$, $p < .0001$, anger, $F(6,252) = 23.5$, $MSE = 7915.6$, $p < .0001$, and fear, $F(6,252) = 43.0$, $MSE = 11778.4$, $p < .0001$. These interactions are presented in Figure 5. Appendix 27 presents the mean ratings and standard deviations for the three scripts for each of the VASs.

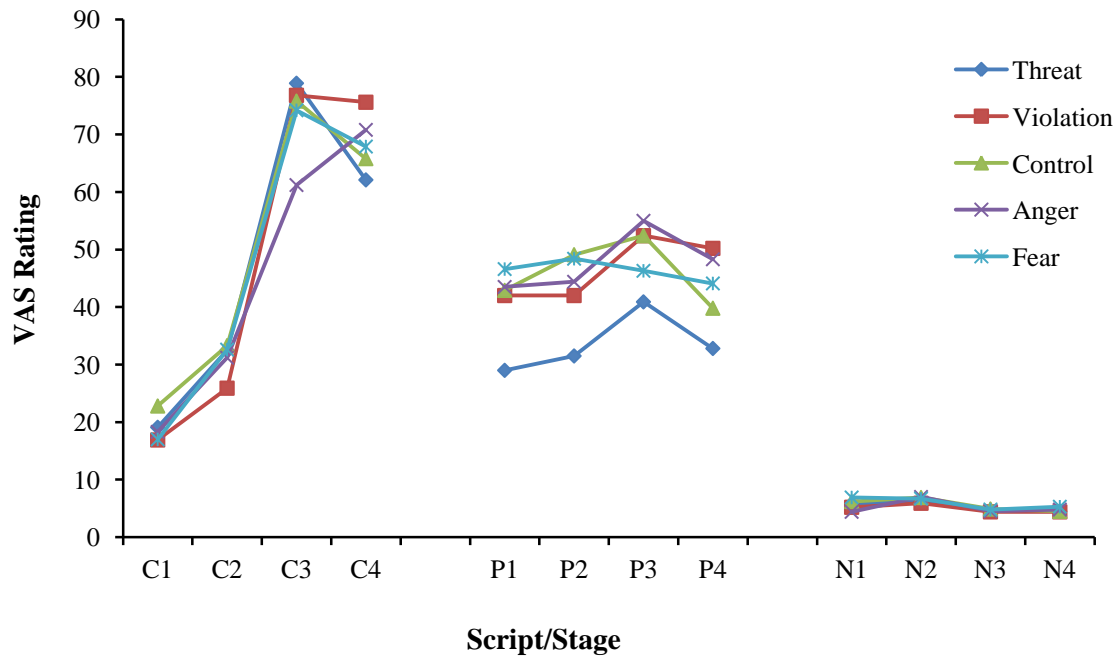


Figure 5. The mean VAS ratings for each stage of the crime, police and neutral scripts for threat, violation, control, anger and fear.

Consideration was given to the differences between scripts at each stage. The results of these analyses are presented in Table 7. Examination was made of the differences involving the police interview script. In relation to differences at the scene stage, the police script elicited higher ratings than both other scripts for all the VASs.

At the approach stage, the police script elicited higher ratings than both other scripts for all the VASs except threat. For threat, the police script elicited a higher rating than did the neutral script but did not differ from the crime script.

At the incident stage, the crime script elicited a higher rating than the police script for all VASs except anger with the police script eliciting higher ratings than the neutral script. For the anger ratings, the police script elicited a higher rating than the neutral script but did not differ from the crime script.

At the consequence stage, the crime script elicited significantly higher ratings than the other scripts for all the VASs with the police script also eliciting higher ratings than the neutral script.

Table 7

The results of the posthoc analyses of script differences at each stage for each VAS (df = 2,84).

VAS	Stage	F	MSE	p	Fisher	Differences
Threat	Scene	17.3	5832.0	.0001	7.8	P>C,N;C>N
	Approach	19.5	9528.0	.0001	9.5	P,C>N
	Incident	131.1	59544.9	.0001	9.1	C>P,N;P>N
	Consequence	83.5	35676.3	.0001	8.9	C>P,N;P>N
Violation	Scene	30.6	15271.8	.0001	9.6	P>C,N;C>N
	Approach	28.2	14097.5	.0001	9.6	P>C,N;C>N
	Incident	134.1	58290.3	.0001	8.9	C>P,N;P>N
	Consequence	139.2	55901.3	.0001	8.6	C>P,N;P>N
Control	Scene	30.9	14540.9	.0001	9.3	P>C,N;C>N
	Approach	42.1	19576.6	.0001	9.2	P>C,N;C>N
	Incident	131.6	56077.4	.0001	8.8	C>P,N;P>N
	Consequence	82.5	40702.1	.0001	9.5	C>P,N;P>N
Anger	Scene	34.3	16880.9	.0001	9.5	P>C,N;C>N
	Approach	27.9	15519.0	.0001	10.1	P>C,N;C>N
	Incident	80.0	41591.4	.0001	9.8	P,C>N
	Consequence	107.5	48367.3	.0001	9.1	C>P,N;P>N
Fear	Scene	39.9	18272.0	.0001	9.2	P>C,N;C>N
	Approach	37.6	19070.2	.0001	9.7	P>C,N;C>N
	Incident	108.1	52416.4	.0001	9.4	C>P,N;P>N
	Consequence	83.5	42897.9	.0001	9.7	C>P,N;P>N

Examination then was made of across stage changes for the police script. Table 8 presents the results of these analyses. Information pertaining to across stage changes for the crime and neutral scripts is presented in the previous chapter.

Table 8

The results of posthoc analyses of across stage changes for the police script for each VAS (df = 3,126).

VAS	F	MSE	p	Fisher	Difference
Threat	3.9	1135.4	.02	7.3	1,2<3,4;3>4
Violation	2.7	1265.3	ns		
Control	3.5	1410.9	.02	8.5	1,2<3,4;3>4
Anger	3.0	1176.0	.04	8.4	1,2<3
Fear	0.3	136.6	ns		

For the threat, control and anger VASs, the scene and approach stages of the police interview script elicited lower ratings than the incident stage. For the threat and control VASs, this was followed by a reduction in rating from the incident stage to the consequence stage.

Need to prove victimisation during the police interview

Of the total sample, 27 participants indicated their perception of a need to prove victimisation during the police interview. These cases were then divided into a need to prove victimisation group (n = 18) and no need to prove victimisation group (n=9).

Psychophysiological response to imagery

There was no significant script x stage x group interaction or script x group interaction for heart rate. The mean heart rate and standard deviations for each stage of the crime, police and neutral scripts are presented in Appendix 28.

Psychological response to imagery

Initially, analyses were conducted to determine the presence of significant script x stage x group interactions. The mean ratings and standard deviations for each of these interactions are presented in Appendix 29.

There were significant script x stage x group interactions for violation, $F(6,150) = 2.7$, $MSE = 853.4$, $p < .02$, and control, $F(6,150) = 2.4$, $MSE = 726.5$, $p < .04$. These interactions are presented in Figure 6.

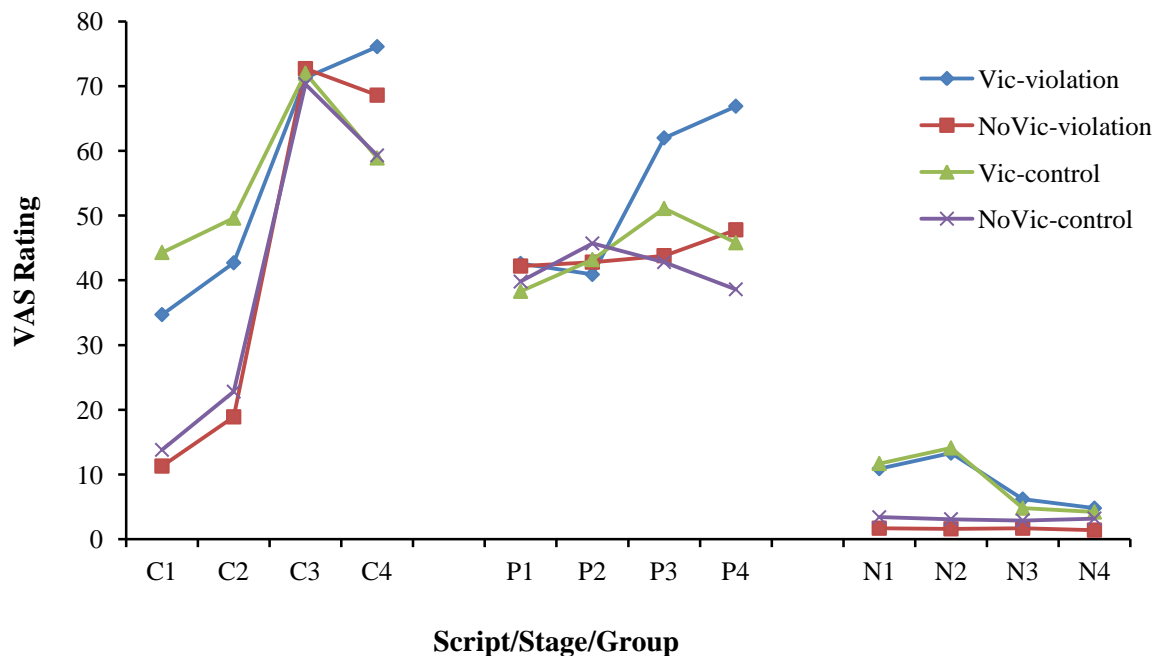


Figure 6. The mean ratings for violation and control for each stage of the crime, police and neutral scripts for the need to prove victimisation and the no need to prove victimisation groups.

Initially, consideration was given to group differences at each stage of each script. These results are presented in Table 9. At the scene and approach stages of the crime script, the need to prove victimisation group gave higher ratings of violation and control than did the no need to prove victimisation group.

There were no group differences in the ratings of violation and control in relation to the police scripts. There were group differences at the first three stages of

the neutral script for ratings of violation and at the scene stage for ratings of control although the overall intensity of ratings was low.

Table 9

The results of posthoc analyses considering group differences in ratings of violation and control at each stage of the crime, police and neutral scripts for the need to prove victimisation and no need to prove victimisation groups ($df = 25$).

VAS	Script	Stage	t	p	Differences
Violation	Crime	Scene	2.5	.02	Vic>NoVic
		Approach	2.2	.04	Vic>NoVic
		Incident	0.1	ns	
		Consequence	0.6	ns	
	Police	Scene	0.1	ns	
		Approach	0.1	ns	
		Incident	1.3	ns	
		Consequence	1.5	ns	
	Neutral	Scene	2.1	.05	Vic>NoVic
		Approach	2.4	.03	Vic>NoVic
		Incident	2.2	.05	Vic>NoVic
		Consequence	1.9	ns	
Control	Crime	Scene	3.5	.002	Vic>NoVic
		Approach	2.7	.02	Vic>NoVic
		Incident	0.1	ns	
		Consequence	0.1	ns	
	Police	Scene	0.2	ns	
		Approach	0.2	ns	
		Incident	0.7	ns	
		Consequence	0.6	ns	
	Neutral	Scene	2.2	.05	Vic>NoVic
		Approach	1.9	ns	
		Incident	0.9	ns	
		Consequence	0.5	ns	

Next, script differences at each stage of each script were considered for each group separately. The results of these analyses are presented in Table 10.

Table 10

The results of posthoc analyses for the between script differences at each stage of the crime, police and neutral scripts for violation and control for the need to prove victimisation and no need to prove victimisation groups.

VAS	Group	Stage	F	MSE	p	Fisher	Differences
Violation	Victim df = 2,16	1	3.3	2445.6	ns		
		2	5.1	2434.4	.02	21.8	C,P>N
		3	32.9	11156.6	.0001	18.4	C,P>N
		4	39.6	13546.9	.0001	18.5	C,P>N
	NoVictim df=2,34	1	18.2	8053.2	.0001	14.2	P>C,N
		2	14.8	7691.7	.0001	15.4	P>C,N;C>N
		3	47.4	22946.7	.0001	14.9	C>P,N;P>N
		4	52.3	21276.5	.0001	13.7	C>P,N;P>N
Control	Victim df=2,16	1	3.8	2721.3	.05	26.5	C,P>N
		2	11.0	3215.8	.001	17.1	C,P>N
		3	28.1	10652.9	.0001	19.5	C>P,N;P>N
		4	15.7	7330.8	.0002	21.6	C,P>N
	NoVictim	1	21.5	6329.5	.0001	11.6	P>C,N
		2	16.8	8186.8	.0001	15.0	P>C,N;C>N
		3	39.5	20630.2	.0001	14.5	C>P,N;P>N
		4	27.0	14485.8	.0001	15.7	C>P,N;P>N

When considering the need to prove victimisation group, significant between script differences at the scene stage were evident only for ratings of control. Both the crime and police scripts elicited higher ratings of lack of control than did the neutral script. The ratings for the crime and police scripts did not differ. At the approach stage, the same pattern as for the scene stage was evident for both the violation and control ratings. At the incident stage, this same pattern of differences was repeated

for ratings of violation. In relation to control ratings, the crime script elicited higher ratings than did the police and neutral scripts with the police script also eliciting higher ratings than did the neutral script. At the consequence stage, the pattern of the crime and police scripts eliciting higher ratings than the neutral script without differences between the crime and police scripts was evident for both violation and control.

When consideration was given to the group that did not perceive a need to prove victimisation, the police script elicited higher ratings of violation and control than did the neutral script at the scene and approach stages. In addition, the crime script elicited higher ratings of violation and control than the neutral script at the approach stage. At the incident and consequence stages, the crime script elicited higher ratings of violation and control than both the police and neutral scripts although the police script elicited higher ratings than the neutral script.

Next, across stage changes for each script were examined separately for the two groups. The results of the analyses are presented in Table 11. For the need to prove victimisation group, there were significant across stage changes only in relation to ratings of violation in response to the crime script. The scene and approach stages elicited lower ratings of violation than the incident and consequence stages. For the group that did not perceive a need to prove victimisation, only the crime script was associated with across stage changes. The scene and approach stages elicited lower ratings of both violation and control than did the incident and consequence stages.

Table 11

The results of the posthoc analyses of across stage changes in ratings of violation and control for the crime, police and neutral scripts for the need to prove victimisation and the no need to prove victimisation groups.

VAS	Group	Script	F	MSE	p	Fisher	Differences
Violation	Victim df=3,24	Crime	8.9	3816.9	.0004	20.1	1,2<3,4
		Police	2.8	1588.9	ns		
		Neutral	1.8	143.2	ns		
	NoVictim df=3,51	Crime	46.3	18740.5	.0001	13.5	1,2<3,4
		Police	0.2	114.5	ns		
		Neutral	0.1	0.3	ns		
Control	Victim df=3,24	Crime	2.5	1325.5	ns		
		Police	0.7	254.8	ns		
		Neutral	1.5	220.5	ns		
	NoVictim df=3,51	Crime	39.7	13591.3	.0001	12.4	1,2<3,4
		Police	0.4	184.3	ns		
		Neutral	0.1	0.8	ns		

Perceived support from police officers

Of the total sample, 27 participants reported their perception in relation to the support they received when interviewed by police officers. High satisfaction was reported by 17 participants and low satisfaction was reported by the remaining 10 participants.

Psychophysiological response to imagery

There was no significant script x stage x group interaction or script x group interaction for heart rate. The mean heart rate and standard deviations for each stage of the crime, police and neutral scripts are presented in Appendix 30.

Psychological response to imagery

The mean ratings and standard deviations for each stage of each script for all the VASs for the two groups are presented in Appendix 31. There were no significant script x stage x group interactions or script x group interactions.

Discussion

The current study demonstrated the severity and intensity of peritraumatic reactions of victims of crime during interviews with police officers regarding their traumatic experiences, with specific attention paid to the impact of perceived need to prove victimisation and satisfaction of support offered by police officers on victims' experiences. In general, the results were as expected in that they were indicative of the stressful nature of police interviews as evidenced by an elevation in psychophysiological reactions and psychological responses at particular stages of the interview. Further, as predicted, perceived need to prove victimisation at the time of the police interview increased some of the negative reactions of victims during their experiences. However, contrary to what was hypothesised, the perceived satisfaction with support received from the police did not strongly impact victims' experiences.

The current results suggest that the police interview is sufficiently stressful that victims' psychophysiological arousal at the approach and incident stages could not be significantly differentiated from their reactions to the crime, at least statistically. Although the crime still had the highest overall heart rate during these stages, the finding, nevertheless, adds to the increasing literature that police interviews can be a particularly stressful encounter for those who have often recently been distressed by an experience of criminal victimisation. Indeed, it is consistent with the numerous

studies undertaken by Campbell and associates examining the negative impact of interactions with police officers on victims' posttraumatic mental health (e.g., Campbell, 2005, 2006; Campbell & Raja, 1999). Campbell's results have repeatedly found that encounters between victims and police officers continue to be problematic for some victims and their post-trauma recovery (2005) despite some suggestion that the interactions have improved between the two (e.g., Frazier & Hanley, 1996).

Interestingly, the absence of any significant across stage changes for heart rate for the police interview script indicates that the actual interview itself, described at the incident stage, was not the only disturbing element of the experience for victims. As a result, it is hard to sustain that it was the retelling of a traumatic experience itself that was the solely arousing element. Rather, the need to retell, the context in which the disclosure occurred and, in all likelihood, the need to tell it mostly to uniformed officers all probably contributed.

Actually, there is literature to suggest that a police officers' uniform, which conveys authority and power, can have a powerful impact on individuals, psychologically (Johnson, 2001). The research also has indicated that the type of psychological influence it has on individuals relates to their preconceived feelings about police officers in general. That is, although for some, the uniform may induce feelings of safety, for others whose attitude towards police is negative, the uniform may provoke negative associations and reactions. Arguably, the preconceived notion that police have the capacity to make an arrest in relation to any wrongdoing may explain the stressed and guilty feeling many individuals experience when they are in the presence of a police officer, despite knowing that they have not done anything wrong. In fact, Johnson (2001) has suggested that citizens often change their behaviour and become more cooperative when confronted with an officer in uniform.

Further, there was little in the way of relief for victims from a higher arousal state after retelling is over. This was evident in the non-significant decrease in heart rate from the incident to the consequence stage of the police script. This is somewhat problematic because of the literature that suggests that arousal that extends beyond the end of a traumatic or stressful event increases the likelihood of a poorer psychological outcome. Certainly, studies have investigated the link between motor vehicle accident survivors' elevated heart rate in the immediate aftermath of trauma and the subsequent development of PTSD. Findings from such studies have indicated that posttraumatic increases in heart rate are predictive of later PTSD (Bryant, Harvey, Guthrie, & Moulds, 2000; Shalev et al., 1998), although some studies have found the opposite (Blanchard, Hickling, Galovski, & Veazey, 2002).

In terms of psychological responses to the police interview script, victims' sense of threat was at a low to moderate level at the scene stage, which was higher when compared to victims' reactions to the crime and neutral scripts at this stage. This finding is not surprising given that at this early point in the scripts, the crime had yet to unfold and, therefore, is unlikely to evoke strong reactions, whereas the crime had already occurred at this point of the police interview script. Thus, in the case where victims' underwent police interviews almost immediately following a traumatic event, there may be some evidence of residual arousal left from the actual crime itself, certainly in light of the fact that most police interviews occurred within 24 hours of the crime. Alternatively, the lead up to a police interview is arguably moderately threatening because, for most people, this would be an unfamiliar experience whereby the victim would soon have to discuss an event that was known to be stressful and there are no indicators yet of how police officers would respond to the situation.

At the approach stage, the crime and police interview scripts could not be distinguished which is most likely reflective of an increase in the sense of threat in victims' responses to the crime script as elements of the criminal action began to unfold. For the police interview script, the level of threat remained low to moderate from the scene stage, indicating that victims' perception of threat stayed level during the time when the police presence became known, waiting for the police interview to begin and the lead up to the actual initiation of the formal questioning process. This is not particularly noteworthy as it seems reasonable to assume that each of these stages preceding a police interview would produce a relatively similar level of threat.

There was little to compare the levels of threat at the incident stage of the two stressful scripts. Although the level of perceived threat at the police interview was at a moderate level, perceived threat to the crime markedly increased to a high level from the approach stage. Nevertheless, the police interview at the point of recounting experiences was still somewhat threatening for victims and certainly more so than in reaction to the neutral event. Again, this is indicative of the stressful nature of the police interview.

The same pattern between scripts was evident at the consequence stage where the threat perceived in relation to the crime script was significantly greater than the threat perceived in relation to the police interview. Again, the level of threat that was perceived during the police interview was moderately low. This is as would be expected given that the consequence stage signifies the completion of the police interview and, therefore, the cessation of any threat felt while retelling during the interview. In fact, participants in this study often reported senses of relief once they had finished providing their account of the experience.

When the overall pattern of threat across the stages of the police script is considered, there was a peak at the incident stage at the time of recounting the experiences which subsequently resolved somewhat after that task was completed. In this way, the most threatening element was the recounting although threat then was only moderate. Therefore, this finding lends some support for the notion that retelling of a traumatic experience can contribute to the stress of victims who are attempting to minimise reminders of the trauma (Herman, 2003; Tehrani, 2002).

It must be considered why threat, even at moderate level, was perceived by victims in response to the recounting of stressful events and at a low moderate level immediately before and after retelling of the experience. It is reasonable to assume that a traumatic or stressful event, such as criminal victimisation, makes a person more threat sensitive, at least for a period of time after such an event is experienced. In fact, there are reports of people being more hypervigilant and more reactive to reminders of their stressful experiences. Certainly, the DSM indicates that extreme psychological stress or physiological reactivity is often triggered post-trauma when the person is exposed to events that resemble or symbolise an aspect of their traumatic event (APA, 2000). Thus, in this way, victims are likely to be more susceptible to the negative aspects of a police interview as a result of the criminal victimisation experience itself. So even though an individual would be undoubtedly physically safe in the presence of police officers and even though indicators of the fact that the crime was over and no longer immediately threatening would have been present, the reminders of the crime that would be evoked by the police interview would be likely to elicit feelings of threat in a person already feeling at least somewhat threat sensitive.

It has already been established from the previous analysis that the crime experience evoked a sense of personal violation at the time of the criminal event and in its immediate aftermath. At the scene and approach stages, ratings of violation were at a moderate level in relation to the police interview and were greater than the sense of violation in the lead up to the crime. At the time of the police interview and in its aftermath, ratings of violation remained at a moderate level but could be differentiated from the high ratings made in response to the crime script

If violation is understood as an unwelcomed and negative intrusion into one's life with a disregard for personal privacy that might impact on a personal sense of dignity and self-respect, then consideration must be given to what it is about a police interview that contributes to this feeling. It may simply reflect the need to go over events that made a person feel violated that contributes to the sense of violation at the police interview. In addition, the account must be given to strangers whose job it is to extract information without the empathy and warmth one might expect from a person one would typically turn to for support (Campbell & Raja, 2005; Norris et al., 1997).

Being forced into a situation where one must recount such events may contribute to the initial sense of violation. Subsequently, having to give an account of an experience where the person felt quite vulnerable might contribute to this overall sense of personal violation. So, it may not be the actions of the police officers that generate a feeling of violation but the fact that the person is forced into a situation where they must disclose personal information about a time when they felt vulnerable may be the factor that evokes the feelings of violation.

The same pattern of differences between scripts that was noted for ratings of violation was also evident for feelings of loss of control. Further, the same pattern of changes of the stages of the police interview scripts that was evident for threat was

noted for control. That is, there was an increase in ratings of lack of control, peaking at the incident stage and decreasing thereafter but still remaining at a moderate level.

It might be expected that reporting the matter to the police and having the opportunity to contribute to the investigation process by engaging in an interview would restore a sense of control for an individual who had experienced an event, the crime, that evoked such strong feelings of loss of control originally. However, this was not the case in the current study. It must be considered, then, what elements of the police interview would increase a person's feelings of lack of mastery over what was happening to them.

It may simply be that the police interview reminded participants of the greater and more strongly felt loss of control that occurred at the time of the crime and in its aftermath. Certainly, this is possible and would reflect the extent to which exposure to a crime has an ongoing effect on the individual. That is, the person's negative experiences do not end at the time the stressful or traumatic event ceases. Indeed, there may be an ongoing sense of vulnerability that continues as reminders of the events arise. So, in the same way that a person goes on to become more threat sensitive in the period after exposure to trauma, feelings of vulnerability also persist.

However, one also needs to consider the influence of the police interview itself and the context in which the police interview takes place that would contribute to these feelings of lack of control. To the broader public, police officers would be considered to be people whose occupational roles place them in positions of some authority and power (Johnson, 2001). Certainly, the way in which the interview was conducted, when it was conducted and how it was conducted all would be determined by the police officers, at least to a greater extent, rather than the victims of crime. At a time when there is probably a strongly perceived need to re-establish some control

in one's life (Herman, 2003), the police interview would act as a reminder that the control of one's life circumstances and the choices one makes had been significantly altered as a result of exposure to the crime and the events or changes that such exposure triggered.

Interestingly, the police script elicited higher ratings of anger than the crime and neutral scripts at the scene and approach stages, in fact, as much anger as the crime script at the incident stage was displayed during the lead up to the police interview. However, at the consequence stage, less anger was reported than the crime script, although the level was still greater in comparison to the neutral script. When considering across stage changes, the analysis indicated that victims' feelings of anger increased over the course of the police interview stages and did not significantly resolve at the consequence stage. The overall ratings of anger were moderate.

The increase in levels of anger may reflect the content of the interview. That is, the person is going to be asked to talk about events that made them angry at the time and talking about and thinking about these events triggers a similar but less intense angry response during the interview. Certainly, the notion of cognitive fusion would support the view that people can react to memories or thoughts of an event in the same way as they would at the time of the event. In fact, these thoughts and memories, generated by the mind, often tend to take over other sources of information, including information obtained through direct experience (Iftah, 2009). Conversely, the process of cognitive defusion allows for people to begin thinking about experiences without suffering the strong psychological responses that rightly are experienced at the time of an event but should not be experienced merely because one is thinking about an event. That is, thought defusion allows individuals to change

the function of unwanted cognitions by modifying the way they relate to them (Iftah, 2009).

However, it may be the case that the angry feelings one has at the recounting of an event are not entirely similar to the ones experienced at the time of an event. For example, angry feelings about a past event may be influenced by the reflections or thoughts one has had about the event since it occurred. That is, angry feelings about an event may be maintained by thoughts other than those that trigger the angry response at the time of the experience.

In general, when consideration is given to specific thoughts that trigger angry responses, they include reflections such as the fact that you have been harmed or victimised; that the perpetrator provoking the attack personally harmed you deliberately; and the belief that the provoking person was wrong to harm you and should have behaved differently. It would be easy to see how these responses could be evoked by an exposure to the criminal action of another person. It would also be easy to see how these thoughts fuelled the response so that subsequent discussions about the event experienced would trigger an angry response and would not allow such angry feelings to dissipate.

However, to some extent, these thoughts could also influence how a person reacted angrily to the forced need to discuss the crime with investigating officers albeit with a less intense reaction than would be elicited at the time of the event. For instance, thoughts that the police interview process puts someone in a position where they have to be exposed to reminders of the event (the harm), that the police officers were creating a situation where difficult experiences had to be discussed (the provoking person harmed you deliberately) and this would be happening even if you wished to be left alone (the provoking person should have behaved differently).

These processes could be in operation even when the most rational thoughts of the individual would lead them to realise that the police interview was part of the process of criminal investigation. One can know, rationally, that something is the case while also feeling strongly negative emotional responses as a result of the irrational thoughts.

When examining fear responses to the police interview, the pattern of between scripts differences was the same as for violation and control. That is, the police interview elicited stronger ratings of fear at the scene and approach stages than the crime and neutral scripts. At the incident and consequence stages, the police script elicited lower ratings than did the crime script but higher ratings than did the neutral script. There were no significant changes in fear over the stages and the overall level of fear was moderate.

Again, this can be looked at in two ways. That is, the fear response is a residual response from the original event and thinking about or talking about that event elicits a fear reaction. Certainly, it is well established that people can continue to be frightened by events that are no longer occurring because they originally elicited a fear response. In fact, the body's stress systems often continue to react to certain physical and emotional triggers as if the threat or danger might return at any time (Kring et al., 2007). In some cases, these responses may be a reaction to only subtle triggers or stimuli.

The fact that the fear response is not as intense as it was at the time of the original event is not particularly noteworthy. A person would recognise that there might not be any immediate risk of harm during a police interview despite the fact that they feel fearful when thinking about something that had already happened. It is probably worthy of note that people can feel fear in anticipation of events that might

happen in the future so there is a strong and well-established link between current fear response and events that are not happening at the time.

However, there may also be elements of the police interview itself that trigger a fear response. For example, being aware that disclosure of information might identify a perpetrator could evoke a fear response; being involved in a formal interview with police officers may be frightening for some; and being involved in an unfamiliar process where the expectations in relation to one's own behaviour are unknown all could evoke a moderate fear response.

When consideration was given to the impact of perceived need to prove victimisation on victims' experiences during the police interview, the results seem to be related to two interesting things. Firstly, the perceived need to prove victimisation is related to elevated feelings of violation and loss of control at the scene and approach stages of the crime script. This may be related to the nature of the crime. Certainly, in the group who perceived they needed to prove victimisation there were more cases of less common crimes (e.g., stalking) and crimes that had occurred a long time ago (e.g., child sexual abuse), and ones involving perpetrators known to the victim. However, the distinction on the basis of crime type was not definitive. Therefore, it may be a function of personal characteristics of the victim (e.g., views they hold about the process and the ways in which they interpret interpersonal interactions). Although not possible from the results of this study, it would be interesting to consider what victim characteristics influence the way in which traumatic events, in general, and crimes in particular are perceived.

This suggested influence of personal characteristics may be supported by the fact that the need to prove victimisation group gave higher ratings of violation and lack of control in the early stages of the neutral scripts. Although the overall ratings

were still low, this group may have been more reactive to even neutral stimuli and respond in a somewhat distorted way to these emotionally neutral events. However, it may also be the specific elements of the crime that caused this effect rather than the overall type of crime. That is, the way in which the crime evolved or the circumstances that gave rise to the crime exposure.

The other interesting feature is that although both violation and control were differentially rated for the need to prove victimisation compared to the no need to prove victimisation groups, it was the elevated feelings of violation at the incident and consequence stages for the need to prove victimisation group that were particularly noteworthy. In fact, the ratings were in the high range and similar in intensity to the ratings made in response to the crime itself. This may be a function of the nature of the crime that was experienced. If the elements of the crime were less clear cut and a perceived need to prove victimisation ensued then a sense of violation, and, indeed, a loss of control, would result from a perceived rejection of one's need to be believed.

Of course, this could also be a function of specific features of the police interview such as the way the particular police officers responded to these victims. If the elements of the crime were less clear cut to clearly identify the victim status of the participant, then the nature of questioning may be very different from cases where victim status was clearly evident.

Given that interviewing is at the heart of police investigations because of the need to discover what occurred, if anything, and identify the perpetrator, and that witness evidence plays a key role in such investigations, the implementation of successful questioning styles during police interviews is crucial. Actually, research attention has been focused on the best interviewing techniques for obtaining the most accurate information, particularly from vulnerable witnesses (see Bull, 2010).

The literature also has suggested that some of these specific questioning styles employed by interviewing officers to elicit information may result in an increase in distress for victims (Campbell & Raja, 1999). For instance, when police officers verbally challenged, or appeared to be solely focused on facts, the victim perceived the interview experience as a negative one (Stephens & Sinden, 2000).

Interestingly, there was no effect of the perceived support received from police officers despite predictions that a lack of support would make the experience of being interviewed by police more problematic. The reasons why must be considered.

In Tasmania, Victim Support Services are readily available to victims of crime. For example, the Victim of Crime Service operates within the Victims Support Service and it support victims with personal and practical problems associated with the impact of crime. Victims of crime are offered access to such services. Therefore, it may be the case that the participants recognised that support was available to them from other official sources so the influence on the psychological response to the police interview of a lack of police officer support during this process was less than it would be if such support services were not available. That is, it was still perceived that some police officers were not supportive but this had less effect because support was available elsewhere. Of course, differences in support services may exist in other jurisdictions. For example, victim advocates in the USA are assigned to victims who have experienced a sexual or violent crime (Bechtel, Alarid, Holsinger & Holsinger, 2012; Camacho & Alarid, 2008).

Although the police are often the first contact for victims and, as such, despite their job descriptions, individuals often expect that the police will offer needed support, and the literature has suggested that positive social support contributes to victims' adjustment to criminal victimisation (Green & Pomeroy, 2007; Johansen et

al., 2007), it has also been established that this support can come from different sources. For instance, other types of formal support may be provided by professionals such as medical personnel and mental health workers. Studies also have found that support from informal supports such as friends, family, and the community can foster recovery in victims of crime (see Green & Pomeroy, 2007).

It is worthy of note that the participant group who perceived a need to prove victimisation was not comprised of entirely the same people who perceived a lack of police officer support. Certainly, it would seem that the need to prove victimisation was the more influential factor than a lack of police support. When consideration is given to factors such as the exposure through modern media to policing processes, there may be an increased recognition that the police officer's role is not personal support.

In summary, as predicted, victims experienced strong psychophysiological and psychological reactions to police interviews in comparison to emotionally neutral events. However, although there were some similar responses during the police script when compared to the crime script, the crime experience elicited more intense reactions at certain stages of the event. When considering heart rate, victims recorded a similar level throughout the entire script indicating that there are aspects in addition to the actual interview process that are stressful. An examination of the psychological responses of participants found that the lead up to the police interview is more stressful than the crime, although the crime generally produces more negative reactions during the incident stages. There were also some residual psychological responses in the aftermath of the police interview. Further, a need to prove victimisation during the police interview predictably increased psychological responses. However, the notable effects were evident in victims' stronger feelings of

violation and control during the early stages of the crime and neutral scripts, and intensely elevated feelings of violation during the police interview and in its aftermath. Interestingly, the received support from police officers did not negatively impact on victims' experiences.

CHAPTER 7

ANALYSIS 3: COURT TESTIMONY

Introduction

In cases where an offender pleads not guilty to an offence, victims of crime are faced with the possibility of being involved in a trial process by acting as a witness (Whitcomb, 2003). There has been some literature documenting the potential benefits of participation in courtroom proceedings, including feelings of increased empowerment, safety, control and social acknowledgement for the victims (Herman, 2003; Orth, 2002; Parsons & Bergin, 2010; Walsh & Bruce, 2011). Other evidence has indicated that victims can be involved in criminal trials without considerable changes to their psychological functioning. In fact, research has found that although some victims or witnesses may be able to participate without noticing any positive outcomes, they may also do so without suffering any significant increase in posttraumatic stress symptoms or without experiencing any substantial long-term psychological distress either (Frazier & Hanley, 1996; Orth & Maercker, 2004; Whitcomb, 2003).

However, despite these documented cases, some researchers have argued that participation in courtroom proceedings has the potential to be an extremely stressful experience for almost anyone (Herman, 2003). In fact, many have suggested that participating in criminal trials can expose victims to significant risks and ultimately make their involvement in the criminal justice system a distressing experience (Parsons & Bergin, 2010; Walton, 1994). Indeed, there is growing evidence in the literature that is suggestive of court trial attendance leading to severe psychological stress for a number of adult and child victims of crime (Orth, 2002; Orth & Maercker, 2004; Whitcomb, 2003). For some, the negative impacts result in the diagnosis of psychiatric disorders, whereas for others, although their symptoms may not warrant a

diagnosis, they can suffer “non-clinical” distress to the extent that disrupts their daily functioning (Parson & Bergin, 2010).

For instance, in an earlier study of the psychological adjustment of victims of crime in the criminal justice system, Freedy and colleagues (1994) found that crime victims are in danger of suffering PTSD if they become engaged in the system. In an exploration of the views of mental health professionals working with survivors, Campbell and Raja (1999) also determined that negative interactions with legal system personnel, including prosecutors and judges, can have a detrimental impact on rape victims’ psychological functioning. In another study of female victims of violence by Koss (2000), the author found that the adversarial nature of the criminal justice process can be a traumatising experience which can exacerbate mental health problems in victims and increase self-blame. Others have stated that victims often are left feeling “traumatised” as a result of having to recount in court their traumatic experiences, or with general feelings of distress or dissatisfaction with their experiences in court or in the criminal justice system as a whole (Campbell & Raja, 2005; Herman, 2003; Koss, 2000).

Along with the recognition that crime victims can suffer adverse psychological consequences as the result of their engagement with the criminal justice system, theorists are beginning to explore and identify key aspects of courtroom participation that are likely to affect victims’ post-trauma psychological recovery (Parson & Bergin, 2010). In fact, findings have indicated that there are numerous factors that interact to influence consequences of legal involvement (Quas & Goodman, 2011). One of these includes the demands placed on victims as a result of the way criminal trials are structured. In fact, in an investigation of legal interventions for child victims, Whitcomb (2003) suggested that criminal court places huge demands on

victims because of the strict procedures and the rules of evidence involved. Specifically, others have proposed that the demands on victims are great because the requirements of legal proceedings are in complete opposition to victims' needs following exposure to trauma (Herman, 2003; Whitcomb, 2003).

Actually, from a legal perspective, the purpose of the criminal justice system is to determine who is guilty, punish them in a way that, hopefully, will deter future criminal activity, and protect the public (Regehr & Alaggia, 2006). In line with this, victims represent critical components in this process (Wheatcroft, Wagstaff, & Kebbell, 2004), particularly in situations where there is a lack of physical evidence, such as in some sexual abuse or rape cases, or in cases where there is a lack of corroborating evidence because victims have reported their crime years after its occurrence (Goodman et al., 1992; Whitcomb, 2003). In such situations, victims may be the primary or sole supplier of evidence in a court case (Goodman et al., 1992; Peterson & Biggs, 1997). Consequently, the needs and concerns of victims and witnesses often are neglected by the criminal justice system because of the pressure to secure higher crime detection and conviction rates (Burton, Evans, & Sanders, 2006). In particular, victims' views frequently are considered less important, if considered at all, and they are offered limited supports to assist their needs (Regehr & Alaggia, 2006).

On the other hand, victims, who agree to participate in taking their matter to court, tend to expect their wishes to be considered, to be allowed the chance to give an unquestioned account of their experiences, and to be provided with some support while recovering from their traumatic experience (Regehr & Alaggia, 2006). Further, by participating in the process, victims hope for the opportunity to recover a sense of control, have their experiences validated and see the offender brought to justice

(Regehr & Alaggia, 2006). Victims also have certain needs in the aftermath of crime such as social acknowledgement, a sense of power and control, and to avoid situations that cause them to relive their traumatic event (Herman, 2003). However, despite their needs and expectations, a disturbing number of victims of crime who participate in the criminal justice system have reported re-experiencing the same sense of lost control, violation of trust, and sense of betrayal that was experienced during the original trauma (Regehr et al., 2008). They often, at some point, also come to the realisation that their wishes have not, or will not, be considered despite their participation. Regehr and Alaggia, (2006) have suggested that this realisation can result in increased levels of emotional stress.

Researchers also have investigated the quality of victims' encounters with the legal system in terms of their evaluations of the procedure and the effect of this on postvictimisation distress. For instance, researchers have been interested in *procedural justice*, or the way a decision is reached in the courtroom rather than the actual outcome (*outcome satisfaction*), as an important factor in triggering secondary victimisation (Parsons & Bergin, 2010). Orth (2002) suggested that in instances where rules are applied consistently, decisions are unbiased, all relevant information is accurately considered, decisions are reviewed when new information is produced, the views of all parties are represented, and the decision is an ethically acceptable one, the procedure is fair. Some literature has shown that victims are likely to be more satisfied with their encounter with the criminal justice system when they perceive that the process was fair and they were given the opportunity to be heard (Herman, 2003). Furthermore, Parsons and Bergin (2010) reported on studies that have highlighted that the level of satisfaction with the case outcome and improvements in psychological functioning are correlated with a victim's belief that the procedures were fair and

reasonable. In contrast, in cases where the victim senses their interests were placed second to the defendant, or when the process was generally perceived to be unfair, victims suffer more distress and less satisfaction with their involvement (Maier, 2012). For instance, in an investigation of 990 criminal trials, Frazier and Hanley (1996) documented victims perceptions that rapists had more rights, the criminal justice system was not fair, their rights were not protected, and they were not provided enough information about or control over the management of their case.

Researchers also have focused their attention on victims' appraisals of interpersonal aspects of the procedure (*interactional justice*) and how this impacts on a victim's post-trauma psychological functioning (Orth, 2002). In ideal situations, victims are made the priority, their needs are important, and attempts are made to avoid victim-blaming and promote recovery. However, unfortunately, as Campbell and Raja (1999) have suggested, this model of service delivery is not always utilised. Although there has been the introduction of victims support services to assist victims, the emphasis can often still be placed on the needs of others in the criminal justice system and, as such, occurrences of victim blaming, insensitive remarks, debasement, and minimization of the harm caused by the victimisation are evident (Orth, 2002). This has been termed secondary victimisation in the research literature, and numerous studies have indicated that involvement in criminal justice activities, such as acting as a witness in court, can trigger such a reaction (Herman, 2003; Rothbaum et al., 1992). In such situations, posttraumatic stress symptoms may be triggered, or psychological recovery may be slowed (Campbell & Raja, 1999), as victims are left feeling concerned with having to prove they were victimised.

Need to prove victimisation

Victims of crime, who act as witnesses, often are exposed to many different interactions during their courtroom encounters. For instance, they are required to undergo a number of varied types of examinations including giving evidence and being cross-examined. Indeed, each of these encounters brings their own potential for increased distress for victims.

When providing evidence (also referred to as examination-in-chief), witnesses are required to give an open account of their experience. During this part of the proceedings, victims may be asked questions by the legal representative of both the prosecution side and the defendant's side. The judge or magistrate also may ask questions about the evidence provided. However, importantly, leading and suggestive questioning styles are not allowed to be used during this part of the proceedings (Burton et al., 2006). Despite this, providing evidence during examination-in-chief can be a traumatic experience because it forces victims to relive their experience through recounting details of the trauma (Herman, 2003; Koss, 2000; Parsons & Bergin, 2010).

In many cases, the victims' evidence then is challenged by the defendant's legal counsel. Known as cross-examination, this critical process is aimed at questioning the accuracy of evidence obtained in the evidence-in-chief and exposing unreliable and dishonest victims (Wheatcroft et al., 2004). By being allowed to use specific types of questions during cross-examination, criminal justice professionals are in a position to attempt to extract certain responses they want from victims.

For instance, presuppositional statements often are used in cross-examination because of the power they have in forcing a yes or no response from victims.

Wheatcroft and colleagues (2004, p. 84) gave the following example as an illustration of this type of statement: “you would agree that the victim’s hair was long?”. Another technique used in cross-examination is called negative feedback and lawyers use this to imply that a previous statement made by the witness was incorrect. Obvious examples of this feedback strategy include statements such as “think about this again”, “try to be more specific”, or “consider your answer more carefully”. More subtle examples, on the other hand, such as “is it a possibility that you might be mistaken...” also may be employed (Wheatcroft et al., 2004, p. 84). Although useful for lawyers in obtaining a desired answer, such aggressive and detailed questioning about traumatic events can be distressing for victims (Herman, 2003: Orth, 2002; Parson & Bergin, 2010). Further, lawyers may undertake to assign blame for the crime or question the victims’ credibility and reliability, which also is particularly stressful for victims (Herman, 2003: Orth, 2002; Rothbaum et al., 1992).

Sexual assault nurse examiners, who support victims through the criminal justice process have suggested that not only are victims potentially retraumatized when forced to relive their experience through providing evidence, secondary traumatization also may be triggered when victims are made to defend their character and credibility during cross-examination (Maier, 2012). In fact, in a paper on workplace trauma, Tehrani (2002) also suggested that many victims have been reported to accept a less than adequate financial settlement rather than face the psychological distress of telling and retelling their traumatic experience to multiple expert witnesses or the possibility of being aggressively cross-examined in court.

In fact, it has been suggested that the law has the potential to exacerbate trauma symptoms (Tehrani, 2002) and that victims suffer this additional distress when attitudes of criminal justice professionals, such as prosecutors, suggest the victim

contributed to their victimisation (Tomz & McGillis, 1997). Further, Maddox and associates (2011) have suggested that victim-blaming is a particular concern for rape victims because of certain stereotypical attitudes held by many prosecutors and judges. For example, perceptions that women provoke their rape and regularly lie about their experience result in harmful, insensitive and unresponsive treatment by these criminal justice professionals (Campbell & Raja, 1999). Further, in cases which did not involve a weapon, the rapist was a known acquaintance of the victim, the victim had consumed drugs or alcohol, or the victim did not report the crime immediately after its occurrence, rape victims are also viewed as less credible and, thus, more vulnerable to the risks of secondary victimisation (e.g., Campbell & Raja, 2005; Foley & Terrill, 2008; Hackett et al., 2008). Indeed, Campbell and Raja (2005) have suggested that questioning sexual assault victims about their prior sexual histories or their clothing worn during the assault are behaviours undertaken by prosecutors that victims consider upsetting and that potentially result in secondary victimisation.

Previous research has documented that when victims of rape seek assistance from social systems, such as the criminal justice system, they risk the possibility of additional harm. Actually, the discussion of sexual assault victims' experiences of inadequate support from criminal justice professionals and feeling blamed, doubted, and revictimised is becoming a prominent feature within the literature (Campbell & Raja, 1999). Further, many studies have shown elevations in posttraumatic stress reactions, physical health complaints and risk-taking behaviours as a result of the secondary victimisation they undergo while participating in court proceedings (e.g., Campbell & Raja, 1999).

Some researchers have suggested that it is the public nature of court proceedings that is stressful for some victims (Herman, 2003; Koss, 2000). For example, Herman (2003) suggested that not only are victims vulnerable to the impact of lawyers who challenge their credibility, this experience is exacerbated by the fact that it is done publicly in open court. Further, in her investigation into violence against women previously mentioned, Koss (2000) was in agreement that rape survivors may be distressed as a result of being forced to publicly answer questions about intimate details of their sexual assault as well as questions regarding their sexual history. In fact, it could be proposed that forcing victims to participate in these stressful experiences publicly goes against a victim's post-trauma need for social acknowledgement and validation.

Although witnesses are susceptible to violations of procedural and interactional justice, Orth (2002) also has suggested that the procedures victims are required to undergo during the criminal proceedings are another important potential source of distress. Certainly, giving testimony has been cited by many as a particularly stressful requirement of the court (Koss, 2000; Wheatcroft et al., 2004), and has even been referred to as one of four significant predictors of posttraumatic stress symptoms among adult survivors of child rape (Epstein et al., 1997).

Certainly, Goodman and colleagues (1992) and Quas and associates (2005) considered the consequences, over approximately a 10 year period, of testifying for a group of child sexual abuse victims. Firstly, Goodman et al. demonstrated a lack of improvement in behavioural problems for victims in the months after testifying when compared to those victims who did not testify. Interviews with these children before and after testifying also identified that the main fear expressed by victims related to having to face the defendant. Quas et al. later found that those who had testified,

especially those who did so repeatedly, displayed difficulties such as sexual problems, defensive avoidance, and internalising symptoms almost a decade later. Quas and Goodman (2011) also have mentioned other negative outcomes documented in studies such as poorer self-concept, lower self-control, increased internalising and externalising symptoms, and greater risk of suicide attempts in those who have testified in comparison to those who did not do so.

Presence of perpetrator

Another possible requirement of criminal proceedings which victims may endure is a confrontation with the perpetrator (Orth, 2002). Although allowing a defendant to face an accuser is considered to be fair, facing a defendant can be quite a traumatic experience for the victim. According to Quas and Goodman (2011), this is particularly the case when the defendant has threatened or harmed a victim, or in cases where the victim continues to feel a sense of residual loyalty to the defendant.

Further, victims are often fearful that perpetrators will seek revenge as a result of their involvement. Indeed, in some cases, perpetrators have been documented to use their knowledge of the victim to harass or threaten them. This may be in an attempt to force the victim to withdraw from the criminal justice process (Herman, 2003). As such, low reporting rates and high attrition rates have been associated with victims' fears. For example, Tomz and McGillis (1997) suggested that many witnesses are so afraid that defendants will retaliate if they appear in court, they fail to testify.

If victims continue with a case and attend courtroom proceedings, they often report feeling anxious about testifying because of the threatening behaviour that may

be engaged in by the defendant, or the defendant's family or friends during the process (Tomz & McGillis, 1997). In fact, researchers have found that facing the perpetrator in court and confronting others who were present during the actual criminal act, including other witnesses or police, can trigger secondary traumatisation (Rothbaum et al., 1992). For instance, adult survivors of childhood sexual assault have identified direct confrontation with the perpetrator as generally one of the most difficult aspects of the court proceedings (see Herman, 2003).

Facing the perpetrator often is contrary to a victim's post-trauma psychological needs. Specifically, victims frequently need to take control of or avoid exposure to specific stimuli that trigger reminders of the traumatic experience. In fact, some have suggested posttraumatic avoidance temporarily may fulfil positive adaptive functions (Orth & Maercker, 2004). However, this ability to avoid is substantially reduced during trial as the requirements of the court force them to relive their victimisation experience through direct confrontation with the perpetrator (Herman, 2003; Orth, 2002; Orth & Maercker, 2004). Further, not only can the trial represent a major confrontation with the perpetrator, research has documented victims' perceptions of trial proceedings signifying an additional and severe interpersonal conflict with the offender (see Orth, 2002).

As a result of the demands placed on victims and their important role in assisting the criminal justice system secure convictions, research attention has been directed to factors that negatively affect the accuracy of eyewitness testimony such as encounters with perpetrators (e.g., Goodman et al., 1992; Wheatcroft et al., 2004). In fact, the psychological research undertaken in the past two decades has highlighted concerns regarding the credibility and/or special needs of vulnerable and intimidated witnesses (VIW) (Burton et al., 2006). In addition to children, people with learning

disabilities or who are mentally disordered, and people with a physical disability or disorder, victims of crime suffering from fear or distress as a result of crime or as a result of intimidation have been identified as VIWs (Burton, Evans, & Sanders, 2006). In the study undertaken by Goodman et al. (1992), it was suggested that child sexual assault victims who appeared more frightened of the defendant while testifying were less able to answer questions from lawyers than those who were less afraid. Further, the frightened children were more likely to report adverse affects of testifying and their cases were more likely to be dropped or closed.

Thus, as a result of the possible detrimental impact of having to see the defendant while testifying, courts have devised special measures in order to minimise any psychological risk to victims and ensure they provide the best evidence in criminal proceedings (Bull, 2010; Burton et al., 2006; Goodman et al., 1992). For example, through the use of a screen or a one-way mirror, the courts have been able to alter the court environment and specifically block the victim's view of the defendant (Burton et al., 2006; Herman, 2003). Additional special measures such as video recorded evidence-in-chief, live television link, clearing the public gallery of the court, and video recorded cross-examination and re-examination also have be used to limit the victim's exposure to the defendant and/or their family and friends (Burton et al., 2006). Specifically, video recorded evidence-in-chief can allow an interview with a witness to be undertaken and recorded prior to the trial and then shown during the trial proceedings. Live television link (CCTV) or similar, can allow a witness to provide their evidence from outside of the courtroom. Clearing the public gallery within the court can allow a victim to provide their evidence in relative private. Finally, video recorded cross-examination or re-examination can allow victims to complete the processes prior to the actual trial and then video recordings will be

played during the criminal proceedings. Studies into the effectiveness of these special measures have produced varied results (see Burton et al., 2006).

From the literature presented, there has been speculation that a need to prove victimisation while giving evidence and being cross examined causes distress for some victims of crime (e.g., Herman, 2003; Koss, 2000). In addition, the presence of the perpetrator in the courtroom also has been identified as stressful for some victims (e.g., Orth, 2002). Despite this, the exact influence on sufferers' posttraumatic stress symptoms is unclear and, specifically, whether these activities cause an exacerbation in symptoms present from the original trauma or an emergence of additional or secondary symptoms. Therefore, it is the aim of this study to examine these court-related factors to determine their influence on the experiences of criminal justice activities.

It was hypothesised that participants would react more negatively to the stressful scripts (i.e., crime, police interview, court testimony) than the emotionally neutral script as evidenced by higher psychophysiological recordings and psychological responses. Additionally, it was hypothesised that participants would endure a heightened psychophysiological and psychological response during the incident stage of the stress/trauma scripts. It also was hypothesised that participants who perceived a need to prove victimisation while testifying in court would experience significantly stronger psychophysiological and psychological reactions than those who did not perceive a need to prove victimisation during this criminal justice activity. Further, it was hypothesised that those participants who negatively reacted to the perpetrator would react more strongly than those who did not negatively react to the perpetrator as evident in the psychophysiological and psychological responses.

Method

Participants

This analysis involved a subgroup of 19 participants who attended and gave evidence in court. Group allocation initially was made on the basis of whether the perpetrator was present during the courtroom procedures. Secondly, participants were allocated to groups on the basis of perceived need to prove victimisation during cross examination. More information about group allocation is presented in the Results section.

Design

Firstly, a 4 (script: crime, police interview, court testimony, neutral) x 4 (stage: scene, approach, incident, consequence) within group design with repeated measures was used. Secondly, a 2 [group: perpetrator present, perpetrator not present] x 4 (script: crime, police interview, court testimony, neutral) x 4 (stage: scene, approach, incident, consequence) mixed factorial design with repeated measures was used. Thirdly, a 2 [group: need to prove victimisation during cross examination, no need to prove victimisation during cross examination] x 4 (script: crime, police interview, court testimony, neutral) x 4 (stage: scene, approach, incident, consequence) mixed factorial design with repeated measures was used. The dependent variables include the psychophysiological measure of heart rate and the psychological ratings of threat, violation, lack of control, anger and fear.

Materials

Personalised imagery scripts were developed on the basis of the information obtained in relation to participants' experiences during court testimony. These along with the crime, police interview and neutral scripts from the previous analyses were used. Specific information was asked regarding the presence of the perpetrator and

the perpetrator's family or friends, the perception of threat felt from these people, the perceived attitude of the defence lawyer, the felt stress as a result of cross examination, and the length of time on the witness stand. This court script included four stages, like in the previous analyses (see analysis one for a description).

Visual analogue scales (VASs), measuring threat, violation, loss of control, anger, fear and risk of harm, used in this analysis also were the same as in the previous analyses (refer to analysis one).

Psychophysiological recordings of heart rate were obtained in the same way as in the previous analyses (see analysis one).

Procedure

During the first session (outlined in analysis one), additional information was attained regarding courtroom experiences for the purpose of developing a court testimony script. The demographic questionnaire also was completed by participants during this initial session.

During the subsequent session, the procedures used for the crime, neutral and police interview scripts, described in analysis one, were applied to the court script.

Data Analysis

See analysis one for an explanation.

Results

Reaction to court testimony

Consideration initially was given to the interaction of the crime, police interview, court testimony and neutral scripts with consideration to stage changes.

Psychophysiological responses to imagery

There was no script by stage interaction for heart rate. The mean heart rate and standard deviations for each stage of each script are presented in Appendix 32. There

was a script main effect for heart rate, $F(3,54) = 2.8$, $MSE = 107.1$, $p < .05$. This main effect is presented in Figure 7. The mean heart rate and standard deviations for each of the stages are presented in Appendix 33. Post hoc analyses indicated that the crime and court testimony scripts were associated with higher heart rates than the neutral script (Fisher LSD = 2.0).

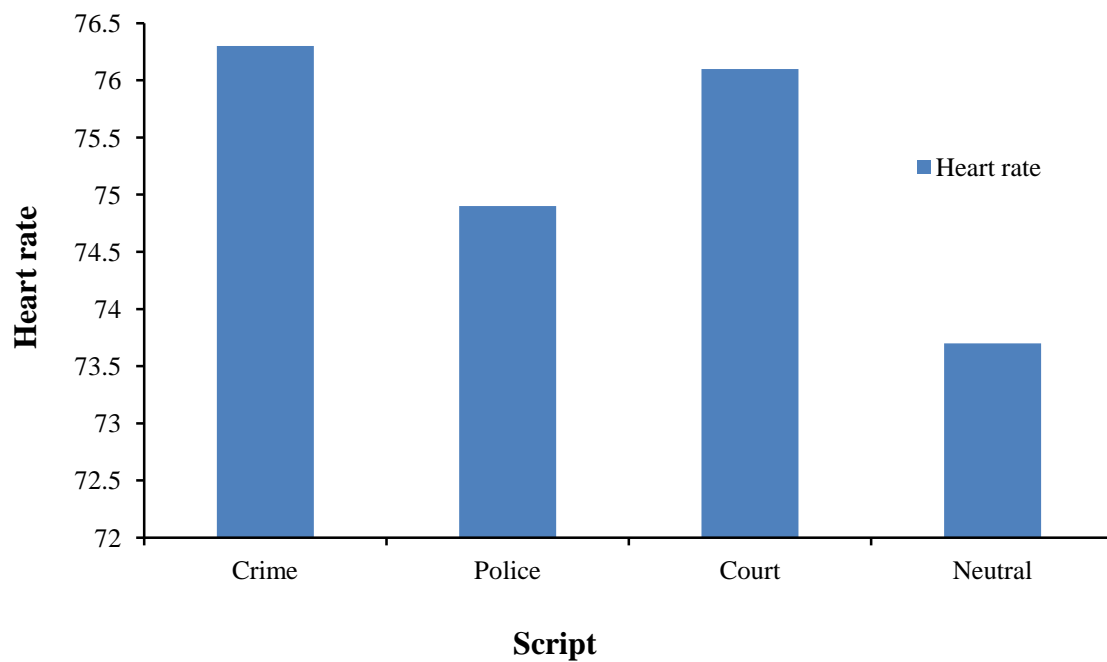


Figure 7. The mean heart rate for the crime, police, court and neutral scripts.

Psychological responses to imagery

There were significant script x stage interactions for threat, $F(9,162) = 11.1$, $MSE = 3153.5$, $p < .0001$, violation, $F(9,162) = 11.1$, $MSE = 3722.7$, $p < .0001$, control, $F(9,162) = 7.7$, $MSE = 2585.2$, $p < .0001$, anger, $F(9,162) = 5.4$, $MSE = 2302.4$, $p < .0001$, and fear, $F(9,162) = 14.9$, $MSE = 4567.5$, $p < .0001$. The mean VAS ratings and standard deviations for each stage of each script are presented in Appendix 34. The interactions are presented in Figure 8.

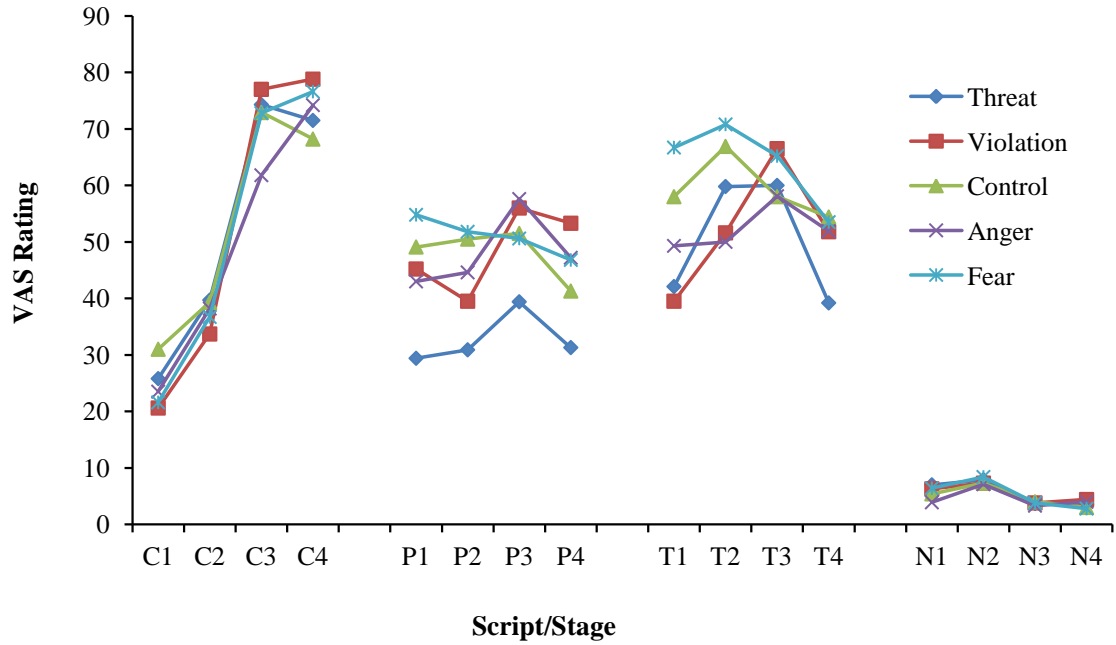


Figure 8. Mean heart rate for each stage of the crime, police, court and neutral scripts.

Initially, consideration was given to script differences at each stage. These results are presented in Table 12. The crime script elicited lower ratings of violation, lack of control, anger and fear than did the police script at the scene stage and lower ratings of threat at the approach stage. The crime script elicited lower ratings of threat, violation, control and fear than did the court script at the scene and approach stages and lower ratings of anger at the scene stage. The crime script elicited higher ratings of threat, violation, control and fear than did the police script at the scene and consequences stages and higher ratings of anger at the consequence stage. The crime script elicited higher ratings of threat, violation, anger and fear than did the court script at the consequence stage and high ratings of lack of control at the incident stage. The court script elicited higher ratings of threat and fear than did the police script at the approach and incident stages.

Table 12

The results of posthoc analyses of script differences at each stage for the crime, police, court and neutral scripts for threat, violation, control, anger and fear (df=3,54).

VAS	Stage	F	MSE	p	Fisher	Differences
Threat	Scene	9.2	4109.6	.0001	13.7	N<C,P,T;C<T
	Approach	19.4	8785.0	.0001	13.8	N<C,P,T;C,P<T
	Incident	36.9	17818.5	.0001	14.3	N<C,P,T;C,T>P
	Consequence	35.8	14874.0	.0001	13.2	N<C,P,T;C>P,T
Violation	Scene	11.6	6043.9	.0001	14.9	N<C,P,T;C<P,T
	Approach	10.9	6666.3	.0001	16.1	N<C,P,T;C<T
	Incident	43.6	20060.7	.0001	13.9	N<C,P,T;C>P
	Consequence	34.7	18328.8	.0001	14.9	N<C,P,T;C>P,T
Control	Scene	19.2	10250.3	.0001	15.0	N<C,P,T;C<P,T
	Approach	26.3	12047.9	.0001	13.9	N<C,P,T;C<T
	Incident	34.9	16845.9	.0001	14.3	N<C,P,T;C>P,T
	Consequence	31.8	14936.5	.0001	14.1	N<C,P,T;C>P
Anger	Scene	13.8	7984.4	.0001	15.6	N<C,P,T;C<P,T
	Approach	10.4	6999.5	.0001	16.9	N<C,P,T
	Incident	27.8	14926.1	.0001	15.1	N<C,P,T
	Consequence	35.9	16327.3	.0001	13.9	N<C,P,T;C>P,T
Fear	Scene	32.2	15030.4	.0001	14.0	N<C,P,T;C<P,T
	Approach	23.7	13182.7	.0001	15.3	N<C,P,T;C,P<T
	Incident	37.4	18190.4	.0001	14.3	N<C,P,T;C,T>P
	Consequence	32.9	18074.9	.0001	15.2	N<C,P,T;C>P,T

Consideration then was given to across stage changes for each script. These results are presented in Table 13. For the crime script, the scene stage elicited lower ratings of threat, violation and fear than did the approach, incident and consequence stages. The approach stage elicited lower ratings of threat violation and fear than did the incident and consequence stages. The scene and approach stages elicited lower ratings of control and anger than did the incident and consequence stages.

For the court script, the scene stage elicited lower ratings of threat than did the incident and consequence stages. The scene and approach stages elicited lower ratings of violation than did the incident stage. The approach stage elicited higher ratings of threat than did the consequence stage, and the incident stage elicited higher ratings of threat and violation than did the consequence stage.

Table 13

The results of posthoc analyses for the across stage changes for the crime, police, court and neutral scripts for threat, violation, control, anger and fear (df=3,54).

VAS	Script	F	MSE	p	Fisher	Differences
Threat	Crime	34.7	10848.6	.0001	11.5	1<2,3,4;2<3,4
	Police	1.1	387.8			
	Court	5.4	2325.8	.003	13.5	1<3,4;2,3>4
	Neutral	1.4	97.4			
Violation	Crime	50.2	16908.2	.0001	11.9	1<2,3,4;2<3,4
	Police	2.1	1083.5			
	Court	5.3	2309.7	.003	13.6	1,2<3;3>4
	Neutral	1.0	49.3			
Control	Crime	15.1	8198.0	.0001	15.1	1,2<3,4
	Police	0.8	411.8			
	Court	1.1	540.7			
	Neutral	0.9	64.7			
Anger	Crime	13.8	9895.2	.0001	17.4	1,2<3,4
	Police	1.6	824.3			
	Court	0.6	306.1			
	Neutral	0.9	55.7			
Fear	Crime	43.7	13909.9	.0001	11.6	1<2,3,4;2<3,4
	Police	0.5	208.6			
	Court	2.3	1048.6			
	Neutral	1.3	123.2			

Need to prove victimisation during court proceedings

Of the sample of participants who attended court, 12 indicated that they perceived a need to prove victimisation. The remaining 7 participants indicated that they did not perceive a need to prove victimisation.

Psychophysiological response to imagery

There were no significant script x stage x group or script x group interactions for heart rate. The mean heart rate and standard deviations are presented in Appendix 35.

Psychological response to imagery

Appendix 36 contains the mean VAS ratings and standard deviations for each stage of the crime, police, court and neutral scripts. There was a significant script x stage x group interaction for anger, $F(9,153) = 2.0$, $MSE = 789.5$, $p < .05$. This interaction is presented in Figure 9.

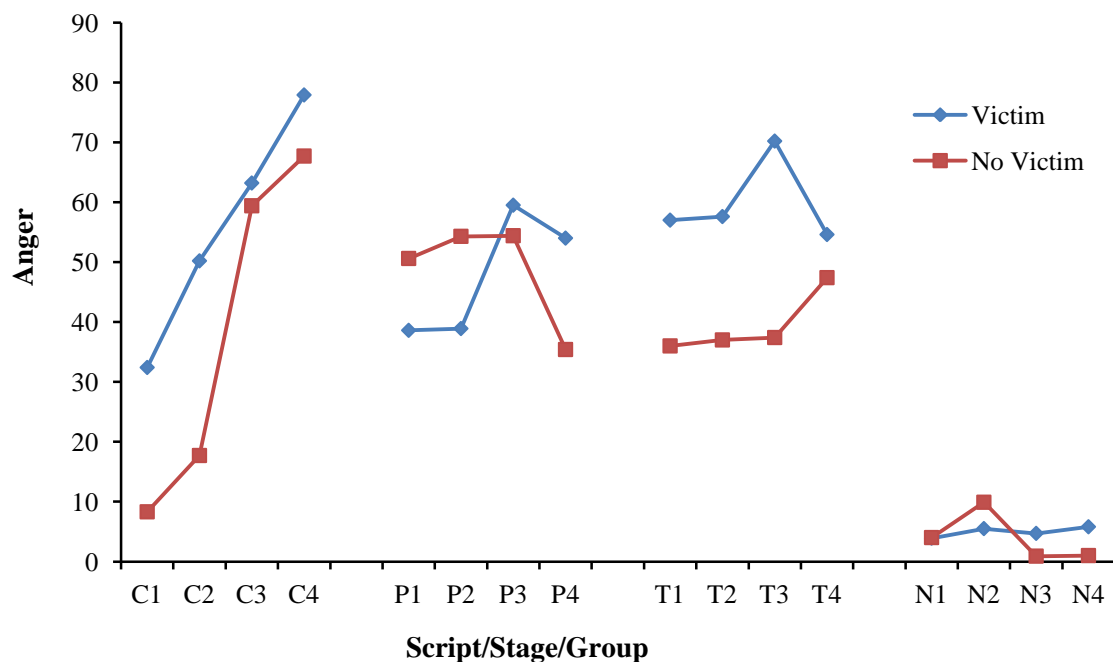


Figure 9. The mean anger ratings for each script of the crime, police, court and neutral scripts for the need to prove victimisation and no need to prove victimisation groups.

Firstly, group differences at each stage of each script were examined. The results of these analyses are presented in Table 14. The need to prove victimisation group gave ratings of more anger than did the no need to prove victimisation group at the scene and approach stages of the crime script and at the incident stage of the court testimony script.

Table 14

The results of posthoc analyses considering group differences in ratings of anger at each stage of the crime, police, court and neutral scripts for the need to prove victimisation and no need to prove victimisation groups (df = 17).

Script	Stage	t	p	Differences
Crime	Scene	2.2	<.05	Vic>NoVic
	Approach	2.4	<.03	Vic>NoVic
	Incident	0.2	ns	
	Consequence	0.8	ns	
Police	Scene	0.8	ns	
	Approach	1.1	ns	
	Incident	0.3	ns	
	Consequence	1.2	ns	
Court	Scene	1.4	ns	
	Approach	1.5	ns	
	Incident	2.4	<.03	Vic>NoVic
	Consequence	0.4	ns	
Neutral	Scene	0.1	ns	
	Approach	0.6	ns	
	Incident	1.7	ns	
	Consequence	1.1	ns	

Next, script differences at each stage of each script were considered for each group separately. These results are presented in Table 15. For the need to prove victimisation in court group, the crime, police and court scripts all elicited higher

ratings of anger than did the neutral script. In addition, at the scene stage, the court script elicited higher ratings of anger than did the crime script. At the consequence stage, the crime script elicited higher ratings of anger than did the police and court scripts.

For the no need to prove victimisation in court group, the neutral script elicited lower ratings of anger than did the police and court scripts at all four stages. The neutral script also elicited lower ratings of anger than did the crime script at the incident and consequence stages. The crime script elicited lower ratings of anger than did the police script at the scene and approach stages but high ratings at the consequence stage. Finally, the crime script elicited lower ratings of anger than did the court script at the scene stage.

Table 15

The results of posthoc analyses for the between script differences at each stage of the crime, police, court and neutral scripts for anger for the need to prove victimisation in court and the no need to prove victimisation in court groups.

Group	Stage	F	MSE	p	Fisher	Differences
Victim (df=3,18)	Scene	8.8	5813.4	.0002	21.3	N<C,P,T;T>C
	Approach	9.0	6354.5	.0002	22.1	N<C,P,T
	Incident	20.8	10904.6	.0001	19.0	N<C,P,T
	Consequence	23.2	11009.4	.0001	18.1	N<C,P,T;C>P,T
No Victim (df=3,18)	Scene	11.4	3488.2	.0002	19.6	N<P,T;C<P,T
	Approach	7.6	2788.7	.002	21.5	N<P,T;C<P
	Incident	9.8	4921.0	.0005	25.2	N<C,P,T
	Consequence	11.6	5477.3	.0002	24.3	N<C,P,T;C>P

Across stage changes for each script were examined separately for the two groups. The results of these analyses are presented in Table 16. There were significant across stage changes only for the crime script. For the need to prove victimisation in court group the scene stage of the crime script elicited lower ratings of anger than did the incident and consequence stages. Further, the approach stage elicited lower ratings of anger than did the consequence stage. For the no need to prove victimisation in court group, the scene and approach stages elicited lower ratings of anger than did the incident and consequence stages.

Table 16

The results of the posthoc analyses of across stage changes in ratings of anger for the crime, police, court and neutral scripts for the need to prove victimisation at court and the no need to prove victimisation at court groups.

Group	Script	F	MSE	p	Fisher	Differences
Victim df=3,33	Crime	5.0	4492.3	.006	24.9	1<3,4;2<4
	Police	2.6	1356.7	ns		
	Court	1.0	589.7	ns		
	Neutral	0.3	8.9	ns		
No Victim df=3,18	Crime	16.5	6151.2	.0001	21.7	1,2<3,4
	Police	1.5	568.5	ns		
	Court	0.5	199.8	ns		
	Neutral	0.9	124.0	ns		

In addition, there was a script x group interaction for threat, $F(3,51) = 2.9$, $MSE = 2441.4$, $p < .05$. The mean ratings are presented in Figure 10. The mean ratings and standard deviations are presented in Appendix 37.

When consideration was given to the group differences in relation to each script, there were significant differences between groups in relation to the crime script, $t(17) = 2.2$, $p < .05$ and the court testimony script, $t(17) = 3.1$, $p < .008$. In both cases, the need to prove victimisation group elicited higher ratings than did the no need to prove victimisation group.

Differences between scripts for each group were then considered. For the need to prove victimisation group, $F(3,33) = 34.7$, $MSE = 8190.7$, $p < .0001$, the neutral script elicited lower ratings of threat than did the crime, police and court scripts. In addition, the crime and court scripts elicited higher ratings of threat than did the police script. For the no need to prove victimisation group, $F(3,18) = 8.4$, $MSE = 1451.3$, $p < .001$, the neutral script elicited lower ratings of threat than did the crime, police and court scripts.

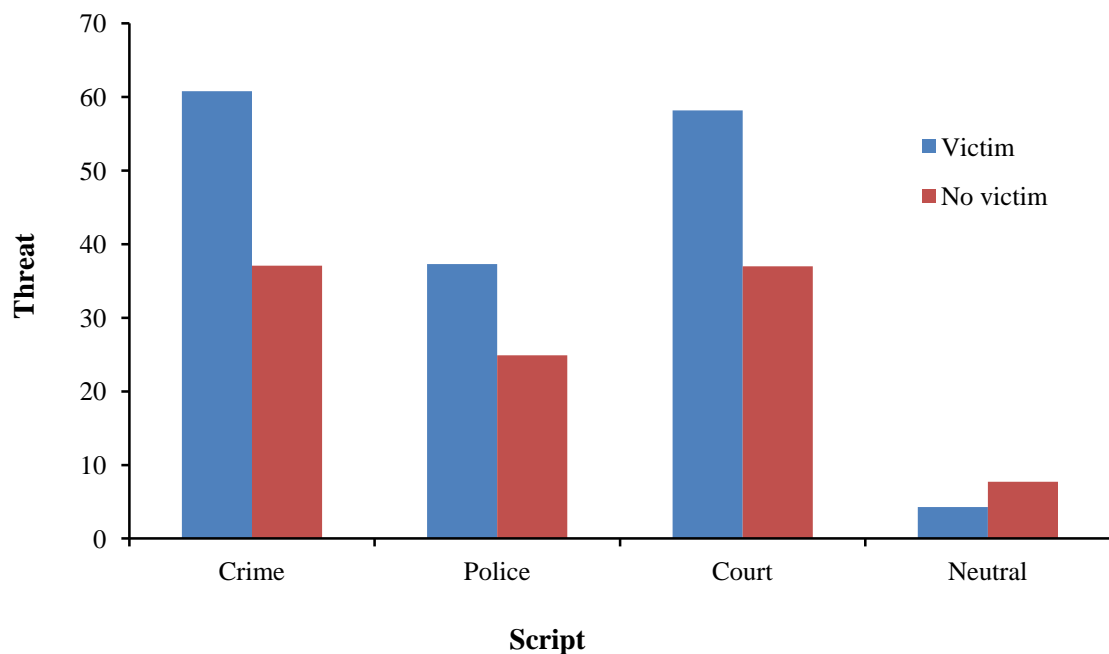


Figure 10. The mean VAS ratings for threat for the crime, police, court and neutral scripts for the need to prove victimisation in court and no need to prove victimisation in court groups.

Presence of perpetrator at court

Comparisons were made in responses of those participants who reported the perpetrator being present when they gave evidence in court and those who reported another arrangement where they did not have to face the perpetrator (e.g., giving evidence by videolink). Most participants were required to give evidence while the perpetrator was present ($n = 14$). Only five participants did not have to face the perpetrator.

Psychophysiological response to imagery

There were no significant script \times stage \times group or script \times group interactions for heart rate. The mean heart rate and standard deviations for each stage of the crime, police, court and neutral scripts are presented in Appendix 38.

Psychological responses to imagery

There were significant script \times stage \times group interactions for violation, $F(9,153) = 3.4$, $MSE = 925.7$, $p < .0008$, control, $F(9,153) = 2.3$, $MSE = 705.1$, $p < .03$, and anger, $F(9,153) = 2.8$, $MSE = 1088.4$, $p < .004$. These interactions are presented in Figure 11. The mean ratings for all VASs for each stage of the crime, police, court and neutral scripts for the perpetrator present and perpetrator not present groups are presented in Appendix 39.

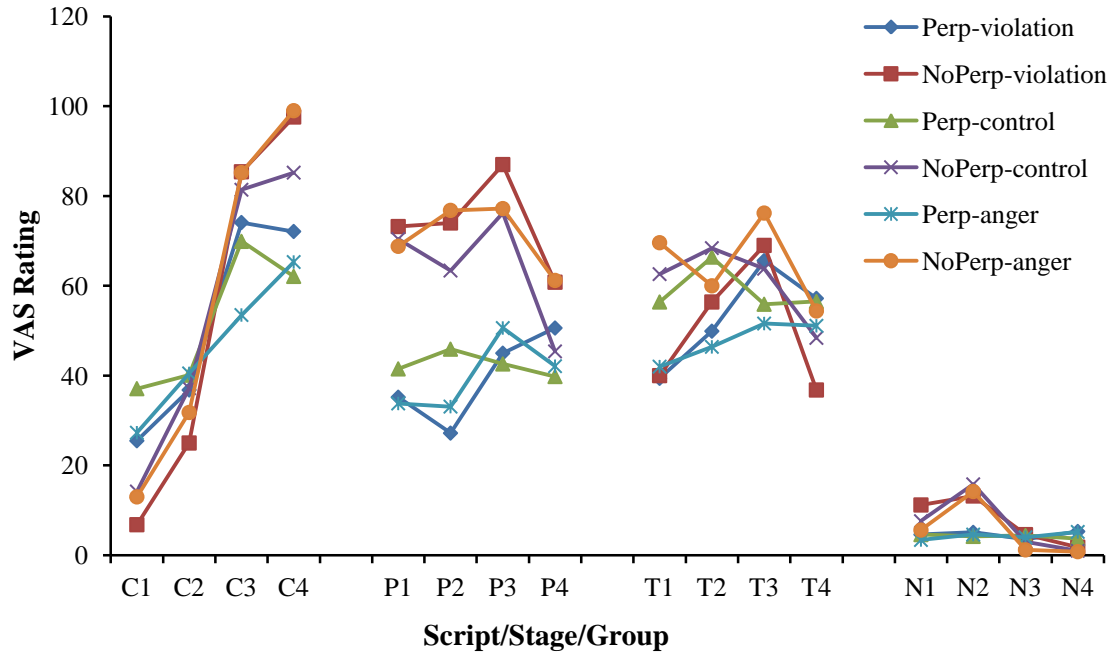


Figure 11. The mean VAS ratings for each stage of the crime, police, court and neutral scripts for violation, control and anger for the perpetrator present and perpetrator not present groups.

Consideration was given to group differences at each stage of each script for violation, control and anger. These results are presented in Table 17. For the crime script, the perpetrator present group gave lower ratings of violation and anger at the consequence stage than did the perpetrator not present group. For the police script, the perpetrator present group gave lower ratings than did the perpetrator not present group for violation and anger at the scene and approach stages, and violation and control at the incident stage.

Table 17

The results of posthoc analyses considering group differences in ratings of violation, control and anger at each stage of the crime, police, court and neutral scripts for the perpetrator present and perpetrator not present groups (df = 17).

VAS	Script	Stage	t	p	Differences
Violation	Crime	Scene	1.3	ns	Perp<NoPerp
		Approach	0.8	ns	
		Incident	1.1	ns	
		Consequence	2.4	0.3	
	Police	Scene	2.5	.03	Perp<NoPerp
		Approach	3.9	.002	Perp<NoPerp
		Incident	2.6	.02	Perp<NoPerp
		Consequence	0.6	ns	
	Court	Scene	0.1	ns	
		Approach	0.4	ns	
		Incident	0.2	ns	
		Consequence	1.3	ns	
	Neutral	Scene	0.9	ns	
		Approach	1.0	ns	
		Incident	0.3	ns	
		Consequence	0.8	ns	
Control	Crime	Scene	1.4	ns	Perp<NoPerp
		Approach	0.2	ns	
		Incident	0.9	ns	
		Consequence	1.9	ns	
	Police	Scene	2.1	ns	Perp<NoPerp
		Approach	1.2	ns	
		Incident	2.4	.03	
		Consequence	0.3	ns	
	Court	Scene	0.5	ns	
		Approach	0.1	ns	
		Incident	0.5	ns	
		Consequence	0.5	ns	
	Neutral	Scene	0.6	ns	
		Approach	1.3	ns	
		Incident	0.5	ns	
		Consequence	1.2	ns	
Anger	Crime	Scene	1.1	ns	Cont...
		Approach	0.5	ns	
		Incident	2.1	ns	

	Consequence	2.9	0.2	Perp<NoPerp
Police	Scene	2.3	.04	Perp<NoPerp
	Approach	3.8	.002	Perp<NoPerp
	Incident	1.7	ns	
	Consequence	1.1	ns	
Court	Scene	1.8	ns	
	Approach	0.8	ns	
	Incident	1.5	ns	
	Consequence	0.2	ns	
Neutral	Scene	0.5	ns	
	Approach	1.2	ns	
	Incident	1.1	ns	
	Consequence	0.9	ns	

Next, script differences at each stage were considered for each group separately. These results are presents in Table 18. For the perpetrator present group, the neutral script elicited lower ratings than did all other scripts for all the VASs at every stage. The crime script elicited lower ratings than did the court script for control at the scene and approach stages. The crime script elicited higher ratings than did the police script at the incident and consequence stages for violation and control and at the consequence stage for anger. The court script elicited higher ratings than did the police script at the incident stage for violation and at the consequence stage for control.

For the perpetrator not present script, the neutral script elicited lower ratings than did other scripts at the incident and consequence stages for violation, control and anger. The neutral script also elicited lower ratings than did the police and court scripts at the scene and approach stages for violation, control and anger. The crime script elicited lower ratings than did the police script at the scene and approach stages for violation, control and anger. The crime script elicited lower ratings than did the court script at the scene stage for violation and anger and the approach stage for

violation. The crime script elicited higher ratings than did the police script and the court script at the consequence stage for violation, control and anger. Finally, the police script elicited higher ratings than did the court script at the scene and consequence stages for violation.

Table 18

The results of posthoc analyses for the between script differences at each stage of the crime, police, court and neutral scripts for violation, control and anger for the perpetrator present and perpetrator not present groups.

VAS	Group	Stage	F	MSE	p	Fisher	Differences
Violation	Perp	Scene	6.5	3372.3	.002	17.4	N<C,P,T
		Approach	8.7	4986.9	.0002	18.3	N<C,P,T;P<T
		Incident	29.1	13849.7	.0001	16.7	N<C,P,T;P<C,T
		Conseq	21.8	11607.8	.0001	17.6	N<C,P,T;C>P
	No perp df=3,12	Scene	31.1	4710.9	.0001	17.0	N,C<P,T;P>T
		Approach	11.6	3916.2	.0007	25.3	N,C<P,T
		Incident	39.4	7525.5	.0001	19.0	N<C,P,T
		Conseq	27.5	8129.4	.0001	23.7	N<C,P,T;C>P,T P>T
Control	Perp	Scene	12.2	6666.3	.0001	17.8	N<C,P,T;C<T
		Approach	18.2	9368.5	.0001	17.4	N<C,P,T;C,P<T
		Incident	25.6	11114.6	.0001	15.9	N<C,P,T;C>P
		Conseq	20.9	9683.4	.0001	16.4	N<C,P,T;P<C,T
	No perp	Scene	24.0	5239.3	.0001	20.3	N,C<P,T
		Approach	9.6	2989.7	.002	24.3	N,C<P,T
		Incident	11.6	6538.3	.0007	32.6	N<C,P,T
		Conseq	13.7	5939.6	.0004	28.7	N<C,P,T;C>P,T
Anger	Perp	Scene	6.8	3871.0	.0008	18.2	N<C,P,T
		Approach	7.3	4811.2	.0005	19.6	N<C,P,T
		Incident	13.4	8059.6	.0001	18.7	N<C,P,T
		Conseq	20.4	9207.9	.0001	16.2	N<C,P,T;C>P
	No perp	Scene	21.5	6026.2	.0001	23.1	N,C<P,T
		Approach	8.5	3928.6	.003	29.6	N<P,T;C<P
		Incident	31.4	7751.2	.0001	21.6	N<C,P,T
		Conseq	25.7	8178.6	.0001	24.6	N<C,P,T;C>P,T

Then, examination was made of across stage changes for each script for violation, control and anger for the perpetrator present and perpetrator not present groups. These results are presented in Table 19. Consideration first was given to the perpetrator present group. For the crime script, the scene and approach stages elicited lower ratings of violation than did the incident and consequence stages. The approach stage elicited lower ratings of anger than did the incident and consequence stages and the approach stage elicited lower ratings than did the consequence stage. For the court script, the scene stage elicited lower ratings of violation than did the incident and consequence stages.

Next, consideration was given to the results for the perpetrator no present group. For the crime script, the scene and approach stages elicited lower ratings of violation, control and anger than did the incident and consequence stages. The approach stage elicited lower ratings of control and anger than did the approach stage. For the court script, the approach stage and the consequence stage elicited lower ratings of violation than did the incident stage.

Table 19

The results of the posthoc analyses of across stage changes in ratings of violation, control and anger for the crime, police, court and neutral scripts for the perpetrator present and perpetrator not present groups.

VAS	Group	Script	F	MSE	p	Fisher	Differences
Violation	Perp	Crime	30.4	8523.9	.0001	12.8	1,2<3,4
		Police	2.7	1503.3	ns		
		Court	3.7	1733.0	.02	16.4	1<3,4
		Neutral	0.4	8.5	ns		
	No perp df=3,12	Crime	45.5	9925.7	.0001	20.4	1,2<3,4
		Police	1.8	572.7	ns		
		Court	3.4	1125.0	.05	25.0	1<3;3>4
		Neutral	1.1	144.9	ns		
Control	Perp	Crime	6.3	3664.2	.002	18.4	1,2<3,4
		Police	0.2	94.0	ns		
		Court	1.0	357.5	ns		
		Neutral	0.3	1.9	ns		
	No perp	Crime	32.4	5982.5	.0001	18.7	1<2,3,4;2<3,4
		Police	2.1	893.4	ns		
		Court	0.4	372.9	ns		
		Neutral	0.8	216.2	ns		
Anger	Perp df=3,54	Crime	4.9	3766.0	.006	21.1	1<3,4;2<4
		Police	1.9	954.1	ns		
		Court	0.6	284.6	ns		
		Neutral	0.4	8.8	ns		
	No perp	Crime	61.9	8550.0	.0001	16.2	1<2,3,4;2<3,4
		Police	0.5	288.3	ns		
		Court	0.7	473.2	ns		
		Neutral	1.1	193.8	ns		

Discussion

This analysis demonstrated the severity and intensity of peritraumatic experiences of 19 victims of crime who testified in court. The specific focus of the current analysis was devoted to the effect of perceived need to prove victimisation

during cross-examination and the presence of the perpetrator during courtroom proceedings on victims' experiences. The finding that providing testimony in court is a stressful event when compared to neutral events was as hypothesised. Specifically the results indicated an intense psychophysiological reaction across the entire experience and high psychological responses during different stages of the experience. Further, as predicted, perceived need to prove victimisation at the time of the police interview increased some negative reactions of victims during their experiences. However, contrary to what was expected, the absence of the perpetrator had a more severe impact on victims' experiences than when the perpetrator was present.

In relation to the psychophysiological responses of victims to the court testimony script, the results showed that there were no differences in heart rate during the different stages of the court script. However, differences between the scripts were evident. For instance, the crime and court scripts evoked the highest heart rate across the events, and this was at a level higher than the neutral script. The crime and court events did not differ significantly from each other, psychophysiologicaly.

The fact that the arousal response was equivalent for victims' during the crime and court experiences was an interesting result. It is generally understood that a stressful or traumatic event that often is associated with a perceived risk of personal harm causes elevations in psychophysiological responses, including heart rate (Yeager & Roberts, 2003). However, it must also be recognised that the events that trigger an elevation in heart rate may not always have this element of risk. It is acknowledged that some events, such as appearing in court and giving evidence, may be perceived to represent a risk to psychological integrity, especially under circumstances where the experience is linked to personal issues such as the experience of being a victim of crime.

This outcome is in line with the research that is indicative of the distressing nature of events, including certain types of criminal victimisation, which do not entail objective risk of harm. For example, studies into sexual harassment (Stockdale et al., 2009) and the psychological component of IPV (Pico-Alfonso, 2005) are suggestive of the fact that threat to physical integrity need not be present in order for an experience to produce distress. In fact, these criminal activities have both been related to the later development of PTSD.

Thus, there is a need to interpret the elevations in heart rate in light of the reports of psychological status at the time of these events. With regard to psychological responses reported by the participants of this study, there were significant interactions of script and stage for all the VAS ratings.

The court script evoked stronger feelings of threat than the crime script at the scene stage and stronger senses of threat than the crime and police scripts at the approach stage. The level of threat perceived at the incident stage was equivalent to the crime script but greater than in response to the police interview. By the consequence stage and after giving evidence and being cross examined, it was the crime script that continued to elicit the greatest feelings of threat whereas the court and police scripts did not differ. The overall degree of threat peaked at a moderately-high level in response to the court script.

It would appear then, that there was an anticipatory threat response that occurred while waiting to enter and then when actually entering the courtroom. This is not surprising given that for most, a courtroom is an unfamiliar environment. Nevertheless, people are aware of the need and ideally would have been prepared to experience both giving an account of the events they experienced and to have their version of events brought under scrutiny by defence counsel. In such cases, the threat

may come from having to give an account in a public forum of what occurred or from having to go through a process of having the consistency, validity or reliability of their account examined. This is in line with previous research documenting the problematic public nature of the court experience (Herman, 2003; Koss, 2000).

With the strong anticipatory response, it is probably most likely that it is the way in which evidence giving and cross-examination are handled that would cause an individual to feel threatened before entering the witness stand. For many, performing or speaking in front of an audience is a challenging event which has the potential to provoke anticipatory anxiety (Behnke & Sawyer, 1999). Further, to provide an account of one's personal and traumatic experiences and have that account, in effect, evaluated by others, including the judge, legal counsel, a jury and observers, could be quite daunting especially when the focus of attention is directed on that person under scrutiny and when one's credibility is perceived to be brought into question. That is, not only are victims susceptible to the impact of aggressive lawyers, they are required to partake in this stressful experience and be subjected to such lawyers' behaviours with an array of people present in the courtroom (Herman, 2003). As such, forcing victims to testify publicly goes against a victim's post-trauma need for control and social validation (Herman, 2003), arguably, adding to the victims' distress. Koss (2000) has also suggested that for victims of sexual abuse, this process of retelling their traumatic experience can be distressing as a consequence of being forced to publicly answer questions about intimate details of their sexual assault as well as questions regarding their sexual history.

It is not surprising then, that a sense of violation was reported to be moderately high at the time that this process would have been at its most intense. That is, while a sense of threat may be felt in the lead up to being on the witness stand, the feeling of

violation would be greatest when experiences, reactions and consequences of exposure to an event that caused feelings of vulnerability had to be disclosed and then when the credibility of the account was brought into question. Certainly, with the exception of the experience of the crime itself, there was no other time when there was a greater sense of violation than when having personal experiences both discussed and, in effect, criticised. This is consistent with the increasing evidence pointing to victims' distress resulting from lawyers who set out to assign blame for the criminal experience and/or question the victims' reliability or credibility by engaging in unrelenting and aggressive questioning (Herman, 2003; Orth, 2002; Rothbaum et al. 1992).

The finding is also in line with the literature specifically examining secondary victimisation. According to this notion, in general, when victims feel blamed by criminal justice personnel or other service providers, including police officers, lawyers, judges, or medical professionals, the attitudes, reactions or behaviours of such professionals can trigger secondary victimisation in victims who are already traumatised by the original event (Campbell & Raja, 1999; Halder & Jaishankar, 2011; Parsons & Bergin, 2010; Patterson, 2011). Thus, secondary victimisation is seen as additional traumatic experiences which involve the violation of victims' rights over and above the initial victimisation (Orth, 2002).

The failure of this sense of violation to resolve or abate in the immediate aftermath of the crime is not mirrored in the court script. That is, there is a reduction in ratings of violation from the moderately higher level at the incident stage of the court script to the consequence stage, although the degree of violation returned only to a moderate level. In a sense, there is a major difference between the crime and court events that would influence the degree of perceived violation at the consequence

stage. For the crime event, the feelings about what had just occurred would change only if there had been an opportunity to reflect upon the meaning of the event. Of course, in the moments after exposure to a crime there would have been little opportunity for this type of reflection to occur. More time would need to pass before feelings of violation could be managed or resolved.

For the court event, the meaning behind the experience would already have been known before the experience occurred. Although a person giving evidence and being cross-examined cannot be fully prepared for all likely events or lines of questioning, ideally it is the case that the purpose of the actions in the court is known as is the general process understood. People would have had time to ready themselves in terms of understanding the necessity of giving evidence. Therefore, although the actual experience may be difficult, resulting in feelings of violation because of the nature of the experience and the nature of questioning, the general understanding of the purpose of the experience would have readied people to allow that sense of violation to begin to resolve as the very clear indicators that the experience of cross-examination was complete became evident. In a sense, the person would be prepared in advance to cope better with the aftermath of the court experience because of the anticipatory reflection on the meaning and purpose of giving evidence.

Like the ratings of violation and threat, ratings of lack of control were elevated at the scene and approach stages of the court script relative to the crime script. However, it is worthy of note that the crime script elicited greater lack of control ratings than did the court script at the incident stage. This was in contrast to the ratings of threat and violation that could not be differentiated from the ratings made to the crime script at this stage. Further, although there were no variations across stages of the court script for control, it is evident that the peak occurred at the approach stage

and not the incident stage. It would seem that the greatest sense of lack of control occurred at the time immediately before giving evidence and being cross-examined occurred. Thus, entering the courtroom, a typically unfamiliar environment, knowing that the stressful experience of giving evidence was to come heightened a sense of having little control over events. Although the experience of giving evidence was unpleasant or uncomfortable for participants, it allowed them a greater sense of control than was experienced in the lead up to the event. This may be because prior to commencing giving evidence and responding to cross-examination questions, most people would have no real information about how they would manage the experience or whether they would be able to engage in the interactions with legal counsel in a manner that would be satisfactory for the court. Further, victims are not always informed about who will be present in the courtroom and, specifically, the number of people in general or whether or not the perpetrator's associates will be there. These aspects would all likely contribute to victims' increased sense of uncontrollability immediately before being called into the courtroom to begin giving testimony.

As the events depicted at the incident stage progressed, participants would then have had a better appreciation of how matters were progressing. Their fears about the nature of cross-examination would undoubtedly have abated as the cross-examination progressed. Indeed, examination of the fear ratings shows this pattern. Fear peaked at the approach stage in the same way that lack of control peaked at the approach stage. A sense of perceived lack of control and more intense fear in the lead up to the experience is an established pattern of response to many novel events that are anticipated with trepidation. In fact, in the literature pertaining to anticipatory anxiety, levels of anxiety have been documented to rise preceding the occurrence of a fear-provoking event in line with evaluations such as the pleasantness or

unpleasantness of an upcoming experience, whether the experience has an important goal, and the perceived capacity to cope with the experience (Behnke & Sawyer, 1999). Such levels of anxiety are then likely to decrease from stages of anticipation into stages of confrontation and adaption. Studies investigating anticipatory anxiety have shown this pattern in psychological responses in relation to events such as public speaking (Behnke & Sawyer, 1999) and examinations (Martin, 1997), among many others.

With regard to ratings of anger, levels were moderate for the court script and at the approach and incident stages could not be distinguished in intensity from feelings of anger at the same stages during the crime and police events. Anger responses to the court and police scripts at the scene stage were elevated relative to the crime script and the crime script was associated with elevated ratings of anger relative to the police and court scripts at the consequence stage.

Given the initially stronger anger ratings at the scene stage, the peak of anger during cross-examination and the lower ratings relative to the crime script at the consequence stage, an argument could be made that it is the process of court involvement that elicited the moderate ratings of anger. This is in line with the notion that criminal trials are adversarial. That is, there are two sides competing against each other (Parson & Bergin, 2010). With a victim giving evidence for the prosecution, that victim is pitted against the defence counsel. The anticipation of this process and the actual experience of the cross-examination would be sufficient to evoke an angry response in someone who did not have greater experience in the nature of criminal trials and the roles of the participants in those trials. Also, there would be some personal investment in being perceived as being a credible witness. If someone

challenged that credibility, as defence counsel would do, it is not surprising that an angry response would be evoked.

This is supported by the finding that the only response affected by a need to prove victimisation at the incident stage of the court script was anger. Overall, an absence of a need to prove victimisation in court resulted in moderately low levels of anger whereas a need to prove victimisation was associated with moderately high levels of anger. A perceived need to prove victimisation in court would be most likely to occur during cross-examination when the veracity of evidence provided would be challenged (Wheatcroft et al., 2004). This challenge would be likely to be associated with the cognitive triggers of anger, that is, credibility is attacked (harm), the defence counsel set out to discredit the evidence/witness (deliberately done) and the witness should have been believed (should have done other than what they did/unfairness).

However, this angry response associated with a need to prove victimisation in court did not occur in a psychological vacuum. Indeed, the need to prove victimisation group reported feeling more threatened by the court experience overall. Interestingly, they also reported feeling more threatened by the crime experience. It may be the case that this reaction to the crime created a threat sensitivity that would have made the court experience, when credibility was likely to be challenged, more difficult than if that threat sensitivity did not exist. Of course, it cannot be ruled out that a negative court experience did not result in the victim viewing the crime experience in a more negative way.

Certainly, the other feature of the court experience that needs to be considered is the presence of the perpetrator in the courtroom. It was expected that the presence of the perpetrator would make the experience in court more difficult for the victim.

However, an interesting result was noted. The group who did not have to face the perpetrator in court experienced greater feelings of violation, lack of control and anger in response to particular aspects of the crime and police scripts. For instance, the perpetrator not present group reported higher levels of violation at the consequence stage of the crime script as well as during every stage of the police script except the consequence stage when compared to the perpetrator present group. For feelings of control, the only difference occurred at the incident stage of the police script whereby the perpetrator not present group reported a more intense reaction than the perpetrator present group. When consideration was given to anger, the perpetrator not present group experienced higher levels of anger during the consequence stage of the crime script and at the scene and approach stages of the police script than the perpetrator present group.

When considering these results, it is likely to be the case that the need to give evidence without the perpetrator being present (e.g., via videolink) was brought about by the serious nature of the crime and the psychological response of the victim to the perpetrator after the crime and before the need to go to court. That is, those participants who would be likely to respond more poorly to the presence of the perpetrator were the ones who had other arrangements made for them because of the threat to their psychological wellbeing. In fact, such victims of crime suffering from fear or distress as the result of the crime or as a result of intimidation are referred to in the literature as vulnerable and intimidated witnesses. Further, in line with the needs and concerns of these victims, special measures have been incorporated into courtroom practices to minimise the psychological harm caused by acting as a witness (Burton et al., 2006).

When one considers script differences for feelings of violation, it is apparent that the perpetrator not present group's response to the court experience could not be distinguished from the responses to the crime and police interview at the incident stage. In this way, all target events were perceived to be violating in nature. For the perpetrator present group, the crime and court scripts were associated with higher ratings of violation than was the police interview. Also, when changes across the court script were considered, there was no resolution of the feelings of violation at the consequence stage for the perpetrator present group but there was for the perpetrator not present group.

Therefore, although the perpetrator not present group had a more pervasive sense of violation in reaction to their experiences, the end of cross-examination did allow for them to feel an easing of these feelings of violation that was not experienced by the perpetrator present group. So, although the overall experience was probably more unpleasant for the perpetrator not present group, it could be argued that the scene was set for a move towards recovery particularly for this group after the court experience. More rapid resolution of a negative experience after a traumatic or stressful event is likely to lead to a better psychological outcome.

When feelings of control are considered, the perpetrator present group's feelings of lack of control did not differ from those experienced in response to the crime event at the incident and consequence stages of the court script. This was in contrast to the perpetrator not present group who experienced lesser feelings of lack of control than elicited by the crime script by the consequence stage of the court script. Although there were no significant variations in response across the court script in terms of ratings of control, these relative differences between scripts for the two groups are interesting. For those participants who had to face the perpetrator in court, feelings of

lack of control were as strong at the consequence stage as they were in the aftermath of the crime. In contrast, this was not the case for the no perpetrator group. Again, this general perception of greater control in the aftermath of the court experience, at least relative to the crime experience, may have signalled a resolution of the experience, setting in place a pathway to better recovery. It would, of course, be necessary to follow up participants to determine if their psychological recovery was hastened or improved by earlier resolution of negative responses to the challenges of involvement in the criminal justice system.

The same pattern was evident for anger in that there appeared to be a move towards resolution in the aftermath of giving evidence for the no perpetrator group as indicated by the significantly lower ratings of anger for the court consequence stage relative to the crime consequence stage that was not demonstrated for the perpetrator present group. It could be the case that the lack of significant decrease in angry feelings after providing testimony were reflective of residual anger that stemmed from seeing the perpetrator once more. In fact, research has suggested that facing the perpetrator goes against a victim's need to avoid reminders of the victimisation by forcing them to confront such reminders (Herman, 2003; Orth, 2002; Orth & Maercker, 2004). In fact, by seeing the perpetrator, once more a victim may engage in anger-related cognitions including the fact that the perpetrator caused them harm, the harm was intentionally driven, and they should not have directed such criminal behaviour towards them.

In summary, court testimony elicited stronger psychological and psychophysiological ratings when compared to emotionally neutral events. In fact, with respect to heart rate, victims' recordings were similar for the court and crime experiences. For psychological responses, the court experience elicited an

anticipatory threat response, the feelings of threat were then similar at the incident stage before reducing following testimony. Senses of violation were at their greatest during the incident stage of the court script, when victims' accounts are under question. Ratings of lack of control and fear remained at a steady level throughout the court experience, although were slightly elevated at the approach stage, immediately before entering the courtroom and/or witness box. Victims' reported moderate levels of anger throughout the court experience, with a slight peak at the incident stage.

Further, the need to prove victimisation during testimony increased victims' feelings of anger during the incident stage and a general sense of threat throughout the entire courtroom experience. Interestingly, when the perpetrator was absent from the courtroom, levels of violation, lack of control and anger were elevated at different stages during the police and crime scripts.

CHAPTER 8
SUMMARY AND CONCLUSIONS

Overview of results

The present study investigated the severity and intensity of peritraumatic responses of individuals during criminal victimisation in comparison to their reactions while engaging in criminal justice-related events including a police interview and court testimony. Of particular interest were the different aspects of these events that might contribute to their stressful nature. A personalised, staged guided imagery methodology was employed to assess the peritraumatic psychological and psychophysiological reactions of the 43 victims of crime.

As predicted, the results of the crime analysis indicated that victims respond in negative ways to criminal victimisation, more so than emotionally neutral events. This lends support to the notion that criminal victimisation is a stressful experience and one with the potential to cause posttraumatic symptoms and conditions in victims (Green & Pomeroy, 2007; Pico-Alfonso, 2005). However, worthy of note were the slightly elevated psychological responses in the lead up to the trauma, suggesting the possible existence of indicators of imminent danger before the traumatic event began. These responses were followed by a predictable increase in ratings of fear, threat, lack of control, violation and anger during the incident stage when the crime was unfolding. Subsequently, threat and lack of control began to decrease following the cessation of the crime and the beginning of the process of regaining control. However, residual feelings of fear, violation and anger were evident in the immediate aftermath of the crime and signified secondary appraisals of the crime experience and thoughts about what lay ahead (Grey et al., 2001).

Interestingly, perceived risk to life did not impact on the severity of all reactions to criminal activity. Rather, those who experienced criminal victimisation with a

perceived high risk of harm experienced an overall heightened sense of threat, violation and fear across the scene, approach, incident and consequence stages when compared to those who were not exposed to criminal acts with the same high level of perceived threat. It is most likely the case that such high perceptions of harm increased senses of threat, thereby, causing a heightened sense of fear. The severity of the crime also would presumably increase feelings of violation.

When consideration is given to the police interview analysis, as hypothesised, results indicated that police interviews elicit stronger psychophysiological and psychological responses in victims than neutral events. In fact, although at a somewhat reduced level, participants' recordings of heart rate in relation to the police interview script were statistically similar to their psychophysiological responses to the crime at the approach and incident stages. Further, heart rate remained relatively level throughout the police interview script suggesting that there are aspects other than the actual interview experience that cause distress, including retelling, the formal qualities of the interview and the negative responses police elicit because of people's preconceived beliefs. The lack of significant change in heart rate in the consequence stage is concerning as high physiological arousal in the immediate aftermath of trauma has been related to the development of PTSD (Bryant, Harvey, Guthrie, & Moulds, 2000; Shalev et al., 1998). For psychological responses to the police interview, participants felt mildly threatened at the scene stage, more so than the crime, and the severity of the threat remained the same until the interview process began, where there was a peak in participants' feelings of threat, before such feelings decreased again in the consequence stage. However, the sense of threat was comparatively lower in the police interview at the incident and consequence stages of the police script than in the crime script. This suggests that the police interview, at

the time that people recount their traumatic experiences, is a stressful encounter, but less so than criminal victimisation. For ratings of violation, lack of control, fear and anger, victims experienced higher levels preceding the police interview than leading up to the crime experience. Interestingly, the angry feelings experienced in the lead up to the police interview were comparable to the levels felt during criminal victimisation. Feelings of violation and fear remained moderate during the police interview. For lack of control, victims' feelings peaked during the police interview and then decreased following the completion of the interview. The ratings of violation, anger and fear did not decrease significantly after the police interview was complete.

A perceived need to prove victimisation during police interview impacted on victims' feelings of control and violation at different stages of their experiences. For instance, the perceived need to prove victimisation was associated with elevated feelings of violation and loss of control at the scene and approach stages of the crime script. Although at a lower level, this effect was also found during the early stages of the neutral script. Further, high elevations in feelings of violation for the need to prove victimisation in the incident and consequence stages of the police interview were similar to victims' in severity to feelings of violation during exposure to criminal victimisation. These findings may be indicative of the type of the crime experienced or the nature of the police interview.

However, contrary to the hypothesis, the perceived support received from police officers did not impact on victims' experiences. It may be the case that the reason for this is that victims receive support from other sources and this is sufficient to meet their post-trauma needs.

When considering the results of the court testimony analysis (n=19), the psychological and psychophysiological ratings again provided support for the notion that court testimony was more distressing than emotionally neutral events. In fact, with respect to heart rate, victims' recordings were similar across the court and crime experiences. The court experience also elicited an anticipatory threat response in comparison to the police interview and crime, but the feelings of threat were similar at the incident stage for the crime and court experiences. However, following engagement in the court proceedings, levels of threat were less than those felt after criminal victimisation. Feelings of violation were at their greatest during the incident stage of the court script, when victims' accounts were under question, which reduced to a moderate level in the consequence stage. Ratings of violation and lack of control were also higher in the lead up to the incident stage of the court script in comparison to the crime script. These feelings of control remained at a similar level through the court experience, although the slight peak was evident at the approach stage, immediately before entering the courtroom and/or witness box. For responses of anger, there were elevations in the scene stage of the court and police scripts relative to the crime script. The moderately angry responses during the approach and incident stages were similar for all three trauma scripts. However, the anger was lower in comparison to the crime script at the consequence stage.

Further, the need to prove victimisation during testimony increased victims' feelings of anger during the incident stage and a general sense of threat throughout the entire courtroom experience. Interestingly, when the perpetrator was absent from the courtroom, levels of violation, lack of control and anger were elevated at different stages during the police and crime scripts than when the perpetrator was present. For example, elevations in violation were evident at the consequence stage of the crime

script and at every stage of the police script. Heightened levels of lack of control also were apparent at the incident stage of the police script. Finally, increased levels of anger at the consequence stage of the crime script and the scene and approach stages of the police script were evident in the perpetrator not present group. This may be due to the reason why the perpetrator was not present during testimony. The separation of victim and perpetrator is due to the psychological state of the victim. To protect vulnerable individuals who have impaired psychological functioning, permission may be given for process to take place from an adjacent room via video link. Certainly,, regardless of the crime, some individuals have poorer mental health and coping mechanisms and, as a consequence, are likely to react more severely to many events. This would explain both the elevations in psychological responses to the original traumatic event and police interview, and the reason for the absence of a perpetrator during testimony.

Conclusions

The results confirm the notion that criminal victimisation can be a traumatic experience for individuals who are exposed, which is evident psychologically and psychophysiologicaly. Further, victims may potentially become further stressed while engaging in criminal justice activities such as attending a police interview and giving evidence or being cross-examined in court, particularly in the lead up to these events. Although, in general, these experiences produce less stress during the actual police interview or court testimony when compared to the original crime experience, they still have the capacity to cause negative psychological and psychophysiological reactions. It is also the case that certain aspects of these criminal justice activities

make their involvement more distressing for victims, such as the need to prove victimisation during both the police interview and court experience. Further, not having the perpetrator present during courtroom proceedings, which may reflect more serious crimes or potential reactions to such perpetrators, proved particularly stressful for victims.

It is reasonable to assume that by identifying and remedying the negative aspects inherent in criminal justice activities, victims' experiences may be less negative, thereby, improving their overall satisfaction and compliance, willingness to seek assistance from other services, attrition rates, and future engagement in the criminal justice system.

This could be achieved by offering greater assistance to victims as they move through the criminal justice system. For example, as police officers are usually the first contact victims have with the system, an opportunity could be taken to ensure victims recognise safety signals that may then assist them to better control their psychological reactions. Opportunities could be taken through the involvement in the criminal justice system to increase victims' sense of control and reduce their feelings of threat. Well timed and appropriate interventions of this nature might ease the stress that involvement in this system generates.

Limitations

Given the uniqueness of this sample and the consequential difficulties in obtaining participants, the sample size in the current study is reasonably small. The sample also is unrepresentative with more female participants than male, the majority of participants having experienced a crime of a violent or sexual nature, rather than a

property crime, and only a small proportion of victims having participated in court proceedings. Therefore, the generalisability of the results is somewhat more limited. Nevertheless, the intensive nature of the investigation does provide results that are interpretable and can offer avenues for further research.

The design also did not assess information regarding, or control for the impact of, prior trauma history on victims' experiences. It may be the case that prior victimisation may impact peritraumatic responses in participants' subsequent crime exposures.

Finally, the retrospective nature of study is a potential problem and subject to memory-related problems, although many trauma-related research studies use similar methodologies.

Directions for future research

This study opens many avenues for future research. For example, a focus on the experience of those who were the victims of personal and property crimes could determine the nature of the challenges they face in subsequent criminal justice activities, taking into account factors such as perceived support or actual access to victim support services, previous police contact or courtroom experience, as well as degree of traumatisation at the time of the crime. The identification of differential responses of those with differing experiences within the criminal justice system highlights the need to identify the specific support that will assist people with different needs while engaging in criminal justice activities.

Further, the impact of the severity or type of trauma experienced and the impact on victims of repeated trauma leading up to a traumatic event would be an interesting

focus for future research. Specifically, whether indicators in the lead up to crime are more evident in cases of severe trauma or more identifiable by victims of repeated trauma could prove beneficial.

Finally, to investigate the temporal proximity of the police interview to the crime and whether elevated psychological or psychophysiological reactions preceding the police interview can be accounted for by the existence of residual crime reactions would be an interesting future research topic.

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APPENDIX A

Descriptive Statistics for the clarity of imagery and accuracy of script content for the
crime, police and neutral scripts

Table 20. The mean ratings and standard deviations for clarity and lifelike for each stage of the crime, police and neutral scripts.

VAS	Stage	Crime		Police		Neutral	
		M	SD	M	SD	M	SD
Clarity	Scene	79.9	21.9	78.3	17.8	86.4	15.9
	Approach	79.2	19.1	78.1	20.3	86.2	18.6
	Incident	86.2	12.9	79.6	20.4	86.8	18.1
	Consequence	85.6	12.8	81.4	19.0	87.4	18.0
Lifelike	Scene	78.9	19.7	75.6	21.4	85.4	17.7
	Approach	81.4	17.0	75.4	22.5	85.4	19.9
	Incident	85.8	14.5	74.9	24.8	86.7	17.6
	Consequence	84.1	13.9	77.6	22.0	87.4	17.5

APPENDIX B

Materials described in analysis 1

B1: INFORMATION SHEET



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INFORMATION SHEET

Victims of crime: The experience of criminal justice activities.

The current study is being conducted by Dr Janet Haines, Professor Douglas Paton, and Miss Janita Scott of the School of Psychology at the University of Tasmania. The purpose of this study is to determine the severity and intensity of peritraumatic and posttraumatic stress responses of victims of crime during the actual crime, while being questioned by police and during court proceedings. This project is being undertaken by Janita Scott for a Doctor of Psychology degree.

We are asking people to participate in this study if they have been a victim of crime and have been interviewed by police and attended the court procedures relating to that event. By participating in this study you may learn more about the ways in which you deal with stressful situations. In addition, the information obtained from this study will increase the knowledge about the types of post-crime events that may traumatise people with the aim of improving the ways in which posttraumatic stress reactions are managed.

Participation in this study is completely voluntary. At least two hours' course credit will be available for Psychology students if required. If you agree to participate but then decide to withdraw, you may do so at any time without prejudice. If you wish to withdraw, you may also request that any data relating to you be withdrawn from the study.

If you agree to participate, your first session will involve being interviewed on audiotape to obtain information regarding your criminal victimisation, the police interview and the court proceedings relating to the event, as well as an emotionally neutral event such as making a hot drink. The information gathered from this will be used to formulate four separate imagery scripts. You will then be asked to complete the Impact of Event Scale-Revised. The second session will comprise of being read these scripts while measurements including heart rate, respiration, skin conductance levels, and finger blood volume will be recorded through the use of electrodes and similar instruments. These measurement tools do not cause discomfort although you should be aware of the slight risk of skin rash. Finally, you will be asked to complete visual analogue scales upon completion of each script in order to determine psychological responses associated with threat, violation, loss of control, anger and fear in relation to the imagery scripts. Each session is estimated to take approximately one hour.

Some people may find that it is difficult discussing their traumatic experience as it causes anxiety. If this is the case for you, we recommend that you do not participate in this project because we will require people to talk about their reactions to these experiences. In addition, if you agree to participate but then find it causes you undue

anxiety, please let us know. We will assist you with your anxiety and provide you with the opportunity to withdraw from the study. We do not wish for participation in the project to be distressing for you.

We will maintain the strictest of confidence in relation to this study. All written information, computer data files and audio cassettes will be stored with a participation number code. The data will be secured in a locked cabinet. Individuals will not be identifiable from the results of the study or in any published material from the study.

If you wish to further discuss the study; before, during, or after participation, please contact;

Dr Janet Haines
(03) 6226 7124
J.Haines@utas.edu.au

This project has received ethical approval from the Human Research Ethics Committee (Tasmania) Network. If you have concerns of an ethical nature, or complaints about the manner in which the study is conducted, you may contact the Executive Officer (Amanda McAully, on 6226 2763) of the Human Research Ethics Committee (Tasmania) Network or discuss your concerns with a University Student Counsellor (6226 2697) free of charge.

Should you wish to discuss your traumatic experience with someone unaffiliated with the project, we would suggest that you contact Student Counselling (telephone: 6226 2697), the University Psychology Clinic (telephone: 6226 2805), or your general practitioner. The services provided by Student Counselling and the University Psychology Clinic are free of charge. If you require immediate assistance, please let us know as we would be happy to provide support. If you are receiving counselling or psychological support, you may wish to discuss participation in this project with your counsellor or psychologist prior to commencement.

We would be happy to discuss your individual results with you. Overall results will be available in hard copy or electronic form on the School of Psychology website at the completion of the project if you are interested (www.scieng.utas.edu.au/psychol/). If you decide to withdraw from the project, we would welcome the opportunity to discuss with you any concerns you have about the project and your participation in it. The data collected from this study will be kept in the School of Psychology for at least 5 years and will be destroyed by shredding paper documents and erasing audio cassettes.

Please keep this information sheet and, if necessary, refer to the information it contains. In addition, if you agree to participate, you will be asked to sign a statement of informed consent. A copy of this statement will be provided to you.

Thank you.

B2: CONSENT FORM



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STATEMENT OF INFORMED CONSENT

Victims of crime: The experience of criminal justice activities.

I.....have read and understood the information sheet for this study. The nature and possible effects of the study have been explained to me.

I understand that the study involves;

- Discussing a traumatic event where I was a victim of crime, when I was questioned by police and attended the court proceedings of that event, as well as an emotionally neutral event;
- Recording the discussions on audiotape to facilitate the preparation of imagery scripts;
- Completing an Impact of Event Scale-Revised;
- Attending a recording session and having electrodes and measurement instruments fitted so that measurements of my heart rate, respiration, skin conductance level, and finger blood volume can be made while I am being asked to imagine aspects of the events;
- Rating my psychological responses to each of these events using the visual analogue scales;
- A time commitment of approximately one hour for the interview and one hour for the laboratory session.

I understand the data collected from this study will be kept in the School of Psychology for at least 5 years and will be destroyed by erasing the audio cassettes and shredding the paper documents.

I understand that all research data will be regarded as confidential and that my name will not be attached to the data that are collected. Any questions that I have asked have been answered to my satisfaction. I agree to participate in this study and understand that I may withdraw at any time without prejudice. If I wish to withdraw, I understand I may request that any data relating to me is withdrawn from the study. I agree that research data gathered for the study may be published, however, that I will not be able to be identified in published material.

Name of
participant.....

Signature.....

Date.....

Investigator's statement

I have explained this project to this participant and I believe that consent is informed and that s/he understands the implications of participation.

Name of Investigator.....

Signature.....

Date

APPENDIX C

Materials referred to in analysis 1

C1: Demographic Questionnaire

Name: _____

Sex: Female ☐ Male ☐ (please tick one)

Age: _____

Please describe the nature of the crime? _____

Was it a crime against your property ☐ or a crime against yourself ☐

How long ago did the crime take place? (please tick one)

Less than 6 months

6-12 months

12-24 months

More than 24 months

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

If more than 24 months, how long ago ____

How much time was there between the crime and police interview (approx)? _____

How many times were you interviewed by police? _____

Did you feel you had to prove you were a victim during the police interview? Yes /
No

Did you feel satisfied with the level of support offered by the police officers? Yes /
No

How much time was there between crime and court proceedings? _____

Was the perpetrator present when you gave testimony in court? Yes / No

Did you feel you had to prove you were a victim while testifying in court? Yes / No

C2: IMPACT OF EVENT SCALE-REVISED

Instructions: The following is a list of difficulties people sometimes have after stressful life events. Please read each item, and then indicate how distressing each difficulty has been for you *during the past 7 days* with respect to the disaster. How much were you distressed or bothered by these difficulties?

	Not at all 0	A little bit 1	Moder- ately 2	Quite a bit 3	Extre- mely 4
1 Any reminder brought back feelings about it.					
2 I had trouble staying asleep.	0	1	2	3	4
3 Other things kept making me think about it.	0	1	2	3	4
4 I felt irritable and angry.	0	1	2	3	4
5 I avoided letting myself get upset when I thought about it or was reminded of it.	0	1	2	3	4
6 I thought about it when I didn't mean to.	0	1	2	3	4
7 I felt as if it hadn't happened or wasn't real.	0	1	2	3	4
8 I stayed away from reminders about it.	0	1	2	3	4
9 Pictures about it popped into my mind.	0	1	2	3	4
10 I was jumpy and easily startled.	0	1	2	3	4
11 I tried not to think about it.	0	1	2	3	4
12 I was aware that I still had a lot of feelings about it, but I didn't deal with them.	0	1	2	3	4
13 My feelings about it were kind of numb.	0	1	2	3	4
14 I found myself acting or feeling like I was back at that time.	0	1	2	3	4
15 I had trouble falling asleep.	0	1	2	3	4
16 I had waves of strong feelings about it.	0	1	2	3	4
17 I tried to remove it from my memory.	0	1	2	3	4
18 I had trouble concentrating.	0	1	2	3	4
19 Reminders of it caused me to have physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart.	0	1	2	3	4
20 I had dreams about it.	0	1	2	3	4
21 I felt watchful and on guard.	0	1	2	3	4
22 I tried not to talk about it.	0	1	2	3	4

C3: Example of personalised imagery scripts

NEUTRAL SCRIPT

Close your eyes. We'll start the 60 second baseline...

Right. It is Tuesday morning. It is about 6am. You are in your bedroom. You have just given your husband a coffee. You are now heading back into the kitchen. You walk through the kitchen door. You are feeling ok but sleepy.... **Concentrate on that feeling right now (pause).** See the kitchen in front of you. There are cupboards and a window on the right. Look to your left and see more cupboards, the fridge and the table. Straight ahead is a bedroom sliding door. You can hear to your right that the car next door is running. Notice you are feeling fine as you listen to the noise of the car. **Concentrate on that feeling right now (pause).** **Now open your eyes and switch that scene off.**

Close your eyes.

Right. Listen to your two budgies making noises. They want to get out of their cage. You are feeling pretty tired but relaxed. You are contemplating what study you have to do today. You also are organising what you have to do before you leave the house. Wondering who is picking up which of the children and when.... **Concentrate on those thoughts and feelings right now (pause).** You rub your eyes because you are still half asleep. Turn to your right. Reach out and flick the kettle on. Now reach up above you and get a cup out of cupboard. Place it on the bench and put a tea bag and some sugar in there. You are feeling fine. **Concentrate on that action right now (pause).** **Now open your eyes and switch that scene off.**

Close your eyes.

Right. Turn around and face the bedroom door. Walk to end of the kitchen. Turn and face left. Get two bowls out of cupboard and walk back to the bench near the cupboard. Place the bowls down and get two spoons out. The jug has now bottled. Pour some water in your tea. Go and grab some milk from the fridge and bring it back to the bench. Finish making your cup of tea. **Concentrate on that action right now (pause).** Pick up your cup of tea and carry it out of the kitchen. You walk up the hall and go into the first bedroom on your left. You tell your daughter it is time to get up. You ask her what she wants for breakfast. She says rice bubbles. You now walk back down the hall drinking your tea. You are feeling relaxed. **Concentrate on that action right now (pause).** **Now open your eyes and switch that scene off.**

Close your eyes.

Right. As you are walking you almost bump into your husband as he comes out of laundry. You ask him if he wants another drink. He gives you the thumbs up. Follow him into the kitchen. You walk over to the cupboard to get out the cereal. Open the cupboard, grab out the box and carry it back to the bench. You are still feeling fine. **Concentrate on that action right now (pause).** Pour the cereal into the bowl and then pour some milk on it. Place the bowl on the kitchen table with the spoon beside it. You call out to your daughter 'Bfast is up, get out of bed'. You turn around and stand in front of the sink looking out window. You finish your cup of tea. You feel pretty good. You are now feeling more alert and awake. **Concentrate on that action right now (pause).** **Now open your eyes and switch that scene off.**

CRIME SCRIPT

Close your eyes. We'll start the 60 second baseline...

Right. It is in the afternoon on a Thursday in 2009. You are with "K". "S" is at your mum and dad's place. You had stopped at "K"'s friends place and you are driving back to your place. You are feeling good. **Concentrate on that feeling right now (pause).** You and "K" decide to stop at the bottle shop to pick up a bottle of wine to drink with dinner. You are cooking fish and looking forward to it as you have not eaten it for some time. You are feeling ok. **Concentrate on that feeling right now (pause).** **Now open your eyes and switch that scene off.**

Close your eyes. You drive towards the Mornington Inn and pull into the car park. You park your car next to the green transporter box. You discuss which wine you might get before getting out of the car. You are thinking that you feel like some red wine. You are feeling fine. **Concentrate on that feeling right now (pause).** As you get out of the car, notice another car pulling into the car park. You then look up towards the road and see your ex-girlfriend "N", "C", "J", and a guy get out of a yellow sedan. They head towards you. You are wondering what they are doing. You are feeling somewhat concerned. **Concentrate on that feeling right now (pause).** **Now open your eyes and switch that scene off.**

Close your eyes. Notice "C" has a baseball bat. "J" then says something and runs at you from behind. She stabs something into your chest. You turn and as you do, "C" hits you in head. You turn to her. She throws a batten in air and the guy catches it. You turn and walk towards him. You want to get the batten. He hits you on the head. He then grabs you by your shirt and hits you repeatedly with other. At same time, feel something hitting your back. Notice your adrenalin pumping. **Concentrate on that feeling right now (pause).** You have fallen to your knees. He's continually hitting you. You then hear police sirens. See the police cars drive past you and into car park. The guy stops hitting you and yells 'stop, let me go'. He runs off and throws the batten away. Hear the noise of it hit the ground. You are in disbelief **Concentrate on that feeling right now (pause).** **Now open your eyes and switch that scene off.**

Close your eyes. Turn and see the girls hitting "K". The police are breaking up the fight. Notice the sense of relief when you realise it is finally over. **Concentrate on that feeling right now (pause).** Look down and notice the blood in your jeans pocket. You push it out. You then look at the rest of you. As you do, notice your pocket it full again. You realise it must be bad. The ambulance has arrived now. You tell the ambulance officer. They pull up shirt. They tell you that you have been stabbed. They take you to the ambulance. You sit in there with Katrina. Notice her head is cut open and bleeding. You cannot believe they have done this. **Concentrate on that feeling right now (pause).** **Now open your eyes and switch that scene off.**

POLICE SCRIPT

Close your eyes. We'll start the 60 second baseline...

Right. It is 2005. It is late march. It is Saturday. It is a few months after the incident with "C". You are at the Glenorchy police station sitting in your car. You found a series of abusive text messages from "C". He had threatened to kill you. You had decided that enough is enough and you needed to go to police. As you get out of the police station, you are in two minds about whether to go through with the process. **Concentrate on how you are feeling right now (pause).** As you get closer to the building, you realise the police station is closed. You reach out and press the after-hours buzzer. As you wait to be let in, notice you are feeling a little nervous. **Concentrate on that feeling right now (pause). Now open your eyes and switch that scene off.**

Close your eyes. You are let into the police station. Walk into the foyer. Notice the smell. It is a mixture of pink anaesthetic hand wash and flowers. See four people waiting in front of you. You think that this is too hard. No one will believe you. You are worried "C" will find out and track you down. As you are waiting, you are feeling apprehensive. **Concentrate on how you are feeling right now (pause).** A police officer asks you briefly about why you want a restraining order. You tell him about the incident with the gun where he tried to shoot you. You are then immediately led into an interview room. Your anxiety levels are noticeable. **Concentrate on that feeling right now (pause). Now open your eyes and switch that scene off.**

Close your eyes. You are sitting in the interview room. The policeman now asks you to make a formal statement. He asks you the basics such as your full name, "C's" full name. He then asks you to explain the night in lots detail. He wants you to describe the exact words everyone said. **Concentrate on doing that right now (pause).** Once you get to the point where "C" shot the gun at you, the police officer asks if you are sure. You can't believe he is asking that. You question why you are here if he is going to take that attitude. He asks you about the gun. What kind. What it looked like. Where is it kept in his house? Did you know he had it before went there. Does he have a license for it? Has anyone else seen it? You shut your eyes. You think just get me through this. **Concentrate on that feeling right now (pause). Now open your eyes and switch that scene off.**

Close your eyes. You have just given your statement. It took hours. You are feeling so awake. Everything is coming back to you with respect to the incident. You can remember everything. It is in your face. You can remember the smells. Sounds. Feelings. You are totally overwhelmed. **Concentrate on that feeling right now (pause).** As you leave the police station you are wondering where to go from here. Where the kids are, are you really an unfit mother? You are thinking you should have left "C" years ago.. You are feeling guilty. **Concentrate on that feeling right now (pause). Now open your eyes and switch that scene off.**

COURT SCRIPT

Close your eyes. We'll start the 60 second baseline...

Right. It is the end of 2005. Nearly Christmas. You are at court. You are sitting in a tiny room waiting to give your testimony. It is really hot. The DPP comes into the room and introduces himself. He said "S" has just given his statement and he has been charged with aggravated assault, stalking, firearms and drug offences. He tells you he is still remanded in custody and he will be staying there. You are feeling nervous. **Concentrate on that feeling right now (pause).** He tells you the best sentence "S" may receive would be 3 years but the worst case scenario is 6 months. The DPP basically tells you that it is all up to you to make the judge believe it happened. He tells you to pause before you speak. Not to make a mistake or it will make "S" look innocent. You are feeling more panicky now. You are worried you will say the wrong thing or not be able to speak. You stand up and straightened up your skirt. You take a deep breathe. **Concentrate on that feeling right now (pause). Now open your eyes and switch that scene off.**

Close your eyes. The DPP tells you that you can do this. He says don't look at him. Take no notice. The more emotional you are the better. He says it's ok they will pause if you become too emotional. They will watch "S" reaction to you. This doesn't help your anxiety **Concentrate on that feeling right now (pause).** You walk out of the door. Your brother is there. You are a bit emotional because you have had limited contact with him and you are pleased he is supporting you. You walk into the courtroom. As the door opens, smell "S's" aftershave. You feel like going to be sick. Your feet automatically move. You can't look at him. You are looking at the ground. You are thinking you can't do this. **Concentrate on that feeling right now (pause). Now open your eyes and switch that scene off.**

Close your eyes. You remain standing in the witness box. People are asking you questions. You just automatically answer the best you can. They are mostly asking you about his gun. They ask you how could you not know he had a gun. How can you prove it. Why would he shoot at you after being separated for nearly a year. Feels like his eyes are on you. Watching you. You can still smell his aftershave **Concentrate on that feeling right now (pause).** You can see his feet as you are looking at the ground. You wonder why he didn't clean his shoes for court. You then realise they don't have the gun. So it is his word against yours. You have no one to back up your story. No one wanted to be involved. You really believe he will eventually kill you. This totally overwhelms you. You want it to end. You don't know where to look. You want it to stop now. You can't cope anymore. **Concentrate on that feeling right now (pause). Now open your eyes and switch that scene off.**

Close your eyes. The DPP and your lawyer come over to the witness box. They ask you to follow them. You feel as though you cannot move. Your feet won't move. Your lawyer whispers. It's all ok. It's all part of the process. You are worried now because you have to walk past him once more. **Concentrate on that feeling right now (pause).** As you walk past "S", you know he is staring at you. He is trying to psych you out. You hear a girl say 'bitch'. You feel like you are shrinking into the carpet. You are worried everyone is thinking that about you. **Concentrate on that feeling right now (pause). Now open your eyes and switch that scene off.**

C4: Visual Analogue Scale

Participant Number: _____

Script: Police Interview ☐ Crime ☐ Court ☐ Neutral ☐

Stage: 1 ☐ 2 ☐ 3 ☐ 4 ☐

How do you feel?

Not threatened Threat

Not violated Violated

In control Out of control

Not angry Angry

Not fearful Fearful

Low risk of harm High risk of harm

How clear was the imagery in that scene?

Not clear Clear

How close to real life was that scene?

No lifelike Lifelike

APPENDIX D

Descriptive Statistics for the psychophysiological and psychological data for
Analysis 1: The crime

Table 21. The mean heart rate and standard deviations for each stage of the crime and neutral scripts.

Stage	Crime		Neutral	
	M	SD	M	SD
Scene	76.8	12.4	74.1	11.3
Approach	76.7	12.6	72.4	10.5
Incident	78.2	12.6	73.3	9.9
Consequence	76.1	12.4	73.9	10.5

Table 22. The mean VAS ratings and standard deviations for threat, violation, control, anger and fear for each stage of the crime and neutral scripts.

VAS	Stage	Crime		Neutral	
		M	SD	M	SD
Threat	Scene	19.1	20.8	5.8	11.7
	Approach	32.5	29.7	6.2	14.4
	Incident	78.9	22.0	4.5	6.7
	Consequence	62.1	26.9	4.5	7.3
Violation	Scene	16.9	21.5	5.2	10.2
	Approach	25.9	24.3	5.9	11.5
	Incident	76.8	19.9	4.4	7.3
	Consequence	75.6	25.1	4.4	8.0
Control	Scene	22.8	25.4	6.2	9.1
	Approach	33.3	26.6	6.9	13.1
	Incident	75.8	24.0	4.9	7.3
	Consequence	65.8	27.1	4.5	7.0
Anger	Scene	18.3	23.9	4.4	7.5
	Approach	31.2	29.9	7.0	14.6
	Incident	61.2	32.9	4.5	7.6
	Consequence	70.8	28.3	4.8	8.9
Fear	Scene	17.0	22.3	6.9	16.3
	Approach	32.6	28.0	6.7	14.6
	Incident	74.2	27.0	4.8	8.4
	Consequence	67.9	28.4	5.3	10.2

Table 23. The mean heart rate and standard deviations for the crime and neutral scripts for the high and low risk to life groups.

Group	Stage	Crime		Neutral	
		M	SD	M	SD
High risk	Scene	79.4	14.7	74.7	12.7
	Approach	78.2	14.7	72.9	11.6
	Incident	78.0	14.9	73.7	11.7
	Consequence	77.3	14.9	74.8	12.4
Low risk	Scene	75.2	11.3	74.5	11.9
	Approach	77.9	13.4	73.1	10.3
	Incident	78.9	11.8	73.5	9.7
	Consequence	77.2	11.6	74.9	10.1

Table 24. The mean VAS ratings and standard deviations for threat, violation, control, anger and fear for the high and low risk to life groups for each stage of the crime and neutral scripts.

VAS	Group	Stage	Crime		Neutral	
			M	SD	M	SD
Threat	High risk	Scene	23.4	22.8	6.6	16.0
		Approach	43.4	30.2	8.3	20.5
		Incident	87.9	11.4	3.7	5.8
		Consequence	68.0	26.1	3.1	5.7
	Low risk	Scene	6.9	7.9	3.4	5.2
		Approach	11.0	16.1	2.3	4.3
		Incident	59.0	33.0	3.2	4.7
		Consequence	40.0	30.6	2.8	3.8
Violation	High risk	Scene	22.1	28.1	5.8	13.8
		Approach	34.1	30.5	7.1	15.4
		Incident	79.4	18.4	3.4	6.2
		Consequence	78.0	24.0	2.5	4.8
	Low risk	Scene	13.1	15.0	2.7	3.5
		Approach	12.3	15.0	2.3	3.7
		Incident	57.9	23.3	2.8	4.0
		Consequence	57.3	33.3	2.7	3.7
Control	High risk	Scene	25.4	24.7	6.3	9.9
		Approach	36.4	27.2	8.4	17.8
		Incident	78.4	22.9	3.7	5.5
		Consequence	61.4	28.2	3.4	5.2
	Low risk	Scene	21.0	28.4	5.9	10.7
		Approach	22.2	25.9	3.4	6.2
		Incident	55.8	30.5	3.3	4.3
		Consequence	54.8	32.1	3.9	4.3
Anger	High risk	Scene	21.5	25.3	4.5	7.8
		Approach	41.6	32.5	7.1	15.9
		Incident	61.6	30.6	3.0	4.9
		Consequence	70.3	30.2	2.6	4.5
	Low risk	Scene	21.8	32.9	1.2	2.3
		Approach	18.9	31.7	2.2	3.0
		Incident	47.0	38.6	2.8	3.8
		Consequence	62.3	31.5	2.4	3.3
Fear	High risk	Scene	20.6	23.0	6.6	17.5

Low risk	Approach	40.2	30.2	8.3	20.3
	Incident	85.4	17.3	3.2	5.1
	Consequence	75.5	25.8	2.8	4.5
	Scene	4.4	6.1	1.6	2.4
	Approach	13.6	17.2	2.7	3.5
	Incident	43.7	30.6	3.4	4.8
	Consequence	48.8	29.4	2.6	3.6

Table 25. The mean ratings and standard deviations for threat, violation and fear for the crime and neutral scripts for the low and high perceived risk to life groups.

VAS	Group	Crime		Neutral	
		M	SD	M	SD
Threat	High risk	55.7	33.8	5.4	13.5
	Low risk	29.2	31.8	2.9	4.3
Violation	High risk	53.4	36.1	4.7	11.0
	Low risk	35.2	31.9	2.6	3.6
Fear	High risk	55.4	35.7	5.2	13.7
	Low risk	27.6	29.3	2.6	3.6

APPENDIX E

Descriptive Statistics for the psychophysiological and psychological data for
Analysis 2: The police interview

Table 26. The mean heart rate and standard deviations for each stage of the crime, police and neutral scripts.

Stage	Crime		Police		Neutral	
	M	SD	M	SD	M	SD
Scene	76.8	12.4	75.8	11.3	74.1	11.3
Approach	76.7	12.6	74.9	12.2	72.4	10.5
Incident	78.2	12.6	76.3	12.3	73.3	9.9
Consequence	76.1	12.4	75.9	12.3	73.9	10.5

Table 27. The mean ratings and standard deviations for each stage of the crime, police and neutral scripts for each of the VASs.

VAS	Stage	Crime		Police		Neutral	
		M	SD	M	SD	M	SD
Threat	Scene	19.1	20.8	29.0	24.5	5.8	11.7
	Approach	32.5	29.7	31.5	25.4	6.2	14.4
	Incident	78.9	22.0	40.9	29.5	4.5	6.7
	Consequence	62.1	26.9	32.8	26.8	4.5	20.8
Violation	Scene	16.9	21.5	42.0	31.8	5.2	10.2
	Approach	25.9	24.3	42.0	29.3	5.9	11.5
	Incident	76.8	19.9	52.4	33.3	4.4	7.3
	Consequence	75.6	25.1	50.2	30.2	4.4	8.0
Control	Scene	22.8	25.4	42.9	29.4	6.2	9.1
	Approach	33.3	26.6	49.1	28.7	6.9	13.1
	Incident	75.8	24.0	52.4	29.6	4.9	7.3
	Consequence	65.8	27.1	39.8	30.2	4.5	7.0
Anger	Scene	18.3	23.9	43.5	30.7	4.4	7.5
	Approach	31.2	29.9	44.4	27.2	7.0	14.6
	Incident	61.2	32.9	55.0	30.1	4.5	7.6
	Consequence	70.8	28.3	48.3	32.4	4.8	8.9
Fear	Scene	17.0	22.3	46.6	31.4	6.9	16.3
	Approach	32.6	28.0	48.4	30.3	6.7	14.6
	Incident	74.2	27.0	46.3	32.7	4.8	8.4
	Consequence	67.9	28.4	44.1	32.0	5.3	10.2

Table 28. The mean heart rate and standard deviations for each stage of the crime, police and neutral scripts for the need to prove victimisation and no need to prove victimisation groups.

Group	Stage	Crime		Police		Neutral	
		M	SD	M	SD	M	SD
Victim	Scene	74.4	11.7	77.7	13.3	74.7	13.5
	Approach	73.9	12.7	76.0	14.3	72.6	12.1
	Incident	76.0	12.9	78.7	16.6	73.2	12.3
	Consequence	74.8	13.6	78.6	14.9	74.6	12.5
No Victim	Scene	79.8	14.4	76.3	12.0	74.7	11.9
	Approach	80.2	14.5	76.3	13.5	73.2	10.8
	Incident	79.5	14.4	77.1	12.6	73.8	10.5
	Consequence	78.5	14.0	77.2	13.3	74.9	11.4

Table 29. The mean VAS ratings and standard deviations for each stage of the crime, police and neutral scripts for the need to prove victimisation and no need to prove victimisation groups for each of the VASs.

VAS	Group	Stage	Crime		Police		Neutral	
			M	SD	M	SD	M	SD
Threat	Victim	Scene	27.0	27.5	33.9	26.4	11.8	21.5
		Approach	39.6	30.3	44.4	21.1	15.4	27.8
		Incident	76.0	27.1	46.3	23.2	6.0	6.7
		Consequence	60.8	28.7	46.1	25.3	5.3	7.0
	No Victim	Scene	13.3	14.9	27.4	21.4	2.7	4.8
		Approach	29.1	30.5	24.9	23.7	1.8	3.5
		Incident	79.4	24.2	32.5	30.3	2.3	4.2
		Consequence	57.6	31.7	30.2	27.1	1.8	3.5
Violation	Victim	Scene	34.7	34.8	42.6	33.3	10.9	18.2
		Approach	42.7	35.2	40.9	22.9	13.3	20.2
		Incident	71.3	25.4	62.0	24.4	6.2	7.2
		Consequence	76.1	22.4	66.9	27.3	4.8	5.8
	No Victim	Scene	11.3	14.1	42.2	30.5	1.7	3.8
		Approach	18.9	20.6	42.8	33.6	1.6	3.5
		Incident	72.7	21.3	43.8	37.3	1.7	3.7
		Consequence	68.6	31.5	47.8	32.0	1.4	3.2
Control	Victim	Scene	44.3	29.9	38.3	31.9	11.7	14.5
		Approach	49.6	19.2	43.2	21.8	14.1	24.2
		Incident	72.0	26.9	51.1	14.7	4.8	5.9
		Consequence	58.9	28.0	45.8	21.4	4.2	4.7
	No Victim	Scene	13.8	14.7	39.8	29.1	3.4	5.4
		Approach	22.8	26.5	45.7	32.9	3.1	5.1
		Incident	70.3	28.3	42.8	34.8	2.9	4.6
		Consequence	59.3	30.3	38.6	32.5	3.2	5.0
Anger	Victim	Scene	28.8	29.4	41.4	34.6	6.9	9.8
		Approach	38.8	29.8	37.7	26.7	12.8	21.3
		Incident	73.7	26.0	45.4	32.9	4.6	5.5
		Consequence	73.9	27.0	46.3	36.4	2.9	3.8
	No Victim	Scene	18.0	26.5	45.3	31.1	1.7	3.6
		Approach	31.6	35.7	41.6	26.8	1.8	3.1
		Incident	48.3	34.2	55.2	32.0	2.1	3.7
		Consequence	64.6	32.1	47.2	33.4	2.3	4.3
Fear	Victim	Scene	21.0	16.2	49.8	30.1	11.9	23.8

	Approach	39.9	24.5	52.6	23.4	15.1	27.5
	Incident	75.1	21.0	51.2	28.4	5.0	6.0
	Consequence	73.9	27.3	49.4	28.7	3.9	4.2
No Victim	Scene	12.3	4.2	41.2	33.3	1.4	3.3
	Approach	27.0	31.0	42.3	32.1	2.1	3.8
	Incident	69.7	33.7	37.1	33.3	2.4	4.2
	Consequence	62.9	30.5	45.4	35.1	2.1	4.1

Table 30. The mean heart rate and standard deviations for each stage of the crime, police and neutral scripts for the high satisfaction with support and low satisfaction with support groups.

Group	Stage	Crime		Police		Neutral	
		M	SD	M	SD	M	SD
Support	Scene	77.3	12.7	74.0	10.4	73.4	13.2
	Approach	76.8	13.3	73.6	12.3	72.1	11.9
	Incident	76.3	12.7	74.6	11.7	72.4	11.6
	Consequence	75.8	12.3	74.2	11.3	73.4	12.7
No support	Scene	79.0	15.6	81.5	14.2	76.8	10.6
	Approach	80.3	15.6	80.8	15.0	74.4	9.6
	Incident	81.7	15.5	82.9	15.9	75.7	9.8
	Consequence	79.6	16.2	83.5	15.7	77.2	9.2

Table 31. The mean VAS ratings and standard deviations for each stage of the crime, police and neutral scripts for support and no support groups for each of the VASs.

VAS	Group	Stage	Crime		Police		Neutral	
			M	SD	M	SD	M	SD
Threat	Support	Stage	14.9	13.9	29.5	20.0	2.9	5.0
		Approach	29.9	29.8	26.1	22.2	3.3	5.7
		Incident	79.9	22.1	27.9	25.7	3.2	4.8
		Consequence	57.1	33.1	32.2	26.6	2.6	4.0
	No Support	Stage	22.9	28.8	29.6	28.3	10.0	20.9
		Approach	37.2	32.0	40.6	26.2	11.5	27.0
		Incident	75.4	29.8	52.7	27.1	4.0	6.5
		Consequence	61.4	26.0	41.2	28.4	3.7	6.7
Violation	Support	Stage	17.0	24.1	46.2	31.4	2.8	4.6
		Approach	26.0	27.2	38.1	29.2	3.9	7.4
		Incident	70.9	24.2	44.9	34.1	2.8	4.3
		Consequence	68.2	30.7	47.8	31.5	2.5	3.9
	No Support	Stage	22.7	27.5	35.7	30.3	8.0	18.0
		Approach	28.2	30.9	49.0	31.6	8.2	19.2
		Incident	74.5	19.8	58.4	34.5	4.0	7.3
		Consequence	76.1	25.3	64.9	29.5	2.7	5.5
Control	Support	Stage	20.0	23.9	42.6	29.9	5.2	8.9
		Approach	27.6	27.9	43.1	29.1	5.0	6.9
		Incident	66.5	30.7	43.2	31.7	3.9	5.0
		Consequence	57.7	31.9	41.6	31.2	3.3	4.5
	No Support	Stage	30.7	28.1	33.7	29.4	7.8	11.8
		Approach	38.6	25.8	47.9	30.8	9.8	23.4
		Incident	78.3	19.6	49.6	26.6	2.9	5.2
		Consequence	61.7	24.9	39.9	26.6	4.0	5.6
Anger	Support	Stage	25.5	31.6	45.1	30.2	1.6	3.3
		Approach	38.1	36.7	37.3	23.2	3.2	5.1
		Incident	52.2	33.0	50.6	31.8	2.9	4.3
		Consequence	66.8	29.5	45.4	33.2	2.3	3.6
	No Support	Stage	15.0	17.8	42.2	35.6	6.5	9.5
		Approach	27.0	27.2	45.3	31.5	9.4	20.7
		Incident	64.5	34.6	54.2	33.9	2.9	4.9
		Consequence	69.1	33.1	49.4	36.3	2.8	4.9
Fear	Support	Stage	10.9	14.2	48.4	32.5	2.1	3.9
		Approach	28.3	28.8	44.9	28.6	3.4	5.2

	Incident	68.6	29.7	35.2	31.0	3.3	4.7
	Consequence	63.7	29.9	43.3	34.2	2.7	4.4
No Support	Stage	22.5	27.4	36.7	31.2	9.6	23.1
	Approach	36.3	30.8	47.0	32.3	11.6	26.8
	Incident	76.4	30.8	52.9	32.0	3.2	5.6
	Consequence	71.5	29.5	52.6	30.6	2.7	4.0

APPENDIX F

Descriptive Statistics for the psychophysiological and psychological data for
Analysis 3: Court Testimony

Table 32. The mean heart rate and standard deviations for each stage of the crime, police, court and neutral scripts.

Stage	Crime		Police		Court		Neutral	
	M	SD	M	SD	M	SD	M	SD
Scene	76.6	13.3	74.7	11.7	76.0	14.5	74.4	13.8
Approach	76.6	14.2	73.9	13.3	76.0	14.0	72.8	12.7
Incident	76.9	13.8	75.1	12.8	77.0	14.5	73.4	12.0
Consequence	75.2	12.5	75.7	13.0	75.3	14.8	74.3	12.7

Table 33. The mean heart rate and standard deviations for the crime, police, court and neutral scripts.

Crime		Police		Court		Neutral	
M	SD	M	SD	M	SD	M	SD
76.3	13.2	74.9	12.4	76.1	14.2	73.7	12.7

Table. 34. The mean VAS ratings and standard deviations for each stage of the crime, police, court and neutral scripts.

VAS	Stage	Crime		Police		Court		Neutral	
		M	SD	M	SD	M	SD	M	SD
Threat	Scene	25.8	26.6	29.4	23.5	42.1	24.2	7.0	15.7
	Approach	39.7	33.2	30.9	25.6	59.8	22.9	7.9	20.0
	Incident	74.3	26.2	39.4	29.0	60.0	27.5	3.7	5.7
	Consequence	71.5	22.6	31.3	27.5	39.2	26.1	3.5	5.6
Violation	Scene	20.6	28.0	45.2	32.9	39.5	22.4	6.3	13.4
	Approach	33.7	29.5	39.5	30.7	51.6	29.9	7.3	15.0
	Incident	77.0	19.6	56.0	35.6	66.5	26.8	3.8	6.0
	Consequence	78.8	22.6	53.3	32.3	51.8	30.2	4.4	8.4
Control	Scene	31.0	31.4	49.1	29.2	58.0	25.3	5.4	9.3
	Approach	39.3	28.2	50.5	28.8	66.9	28.0	7.3	17.3
	Incident	72.9	25.6	51.5	29.7	58.0	28.8	4.0	5.3
	Consequence	68.2	24.8	41.3	31.1	54.4	30.3	3.0	4.2
Anger	Scene	23.5	25.5	43.0	32.9	49.3	31.4	3.9	7.6
	Approach	38.2	31.9	44.6	29.2	50.0	30.4	7.1	15.5
	Incident	61.8	32.0	57.6	31.0	58.1	32.1	3.3	5.0
	Consequence	74.2	26.6	47.2	33.0	51.9	34.9	4.0	9.4
Fear	Scene	21.6	28.9	54.8	29.6	66.7	25.6	6.4	17.0
	Approach	36.7	31.1	51.8	28.9	70.8	25.4	8.4	19.8
	Incident	72.8	28.3	50.6	35.9	65.2	29.1	3.8	5.5
	Consequence	76.6	25.6	46.8	36.2	53.5	30.0	2.8	4.4

Table 35. The mean heart rate and standard deviations for each stage of the crime, police, court and neutral scripts for the need to prove victimisation in court and no need to prove victimisation in court groups.

Group	Stage	Crime		Police		Court		Neutral	
		M	SD	M	SD	M	SD	M	SD
Victim	Scene	79.1	14.8	77.2	12.4	79.4	15.9	76.3	14.4
	Approach	78.3	14.7	77.1	13.8	79.0	15.8	74.7	13.0
	Incident	79.8	14.6	77.3	13.8	79.4	14.5	74.6	12.8
	Consequence	77.7	13.2	77.2	13.3	78.0	15.5	76.3	13.3
No victim	Scene	72.2	9.8	70.4	9.8	70.1	10.1	71.1	13.1
	Approach	73.8	14.1	68.5	11.2	70.9	9.0	69.5	12.5
	Incident	71.8	11.8	71.4	10.9	72.8	14.5	71.3	11.2
	Consequence	70.9	10.7	73.2	13.1	70.7	13.2	71.0	11.9

Table 36. The mean VAS ratings and standard deviations for each stage of the crime, police, court and neutral scripts for the need to prove victimisation in court and no need to prove victimisation in court groups.

VAS	Group	Stage	Crime		Police		Court		Neutral	
			M	SD	M	SD	M	SD	M	SD
Threat	Victim	Scene	34.7	29.6	31.0	20.0	51.9	23.8	4.3	7.1
		Approach	47.2	33.5	35.3	24.8	64.0	23.4	5.2	6.8
		Incident	81.7	20.3	44.9	32.2	72.7	20.1	4.1	5.6
		Consequence	79.7	16.1	38.1	28.5	44.3	23.7	3.6	5.4
	No victim	Scene	10.4	9.1	26.7	30.1	26.9	16.1	11.7	24.7
		Approach	26.7	30.5	23.3	27.2	52.7	21.8	12.6	32.8
		Incident	61.6	31.7	30.0	21.4	38.1	25.6	3.1	6.4
		Consequence	57.6	26.5	19.6	22.9	30.3	29.5	3.4	6.5
Violation	Victim	Scene	27.8	32.5	47.2	33.4	46.2	22.5	4.5	6.8
		Approach	41.8	27.1	40.2	28.9	61.3	26.7	6.3	8.8
		Incident	80.1	15.3	63.2	33.2	81.6	16.0	4.2	5.4
		Consequence	85.4	15.6	66.9	29.2	63.8	26.1	5.7	10.1
	No victim	Scene	8.1	11.3	41.9	34.4	28.0	18.2	9.4	20.9
		Approach	19.7	30.1	38.4	36.1	35.0	29.4	8.9	23.0
		Incident	70.1	25.2	43.9	38.8	40.6	20.9	3.3	7.4
		Consequence	67.6	29.2	29.9	23.6	31.3	26.5	2.0	3.6
Control	Victim	Scene	44.8	31.7	49.1	30.8	66.5	25.3	4.6	5.5
		Approach	50.2	24.8	57.2	28.1	72.6	25.9	5.0	6.4
		Incident	74.0	25.7	55.1	31.0	62.9	29.4	4.7	5.9
		Consequence	71.8	26.3	45.4	31.1	62.9	25.8	4.1	4.8
	No victim	Scene	7.4	8.7	49.1	28.5	43.4	19.0	6.7	14.2
		Approach	20.6	24.8	39.1	28.3	57.1	30.9	11.1	28.2
		Incident	71.0	27.3	45.3	28.5	49.6	27.6	2.9	4.3
		Consequence	61.9	22.5	34.1	32.1	39.7	33.7	1.1	2.0
Anger	Victim	Scene	32.4	28.3	38.6	32.4	57.0	31.0	3.9	5.8
		Approach	50.2	32.5	38.9	26.7	57.6	30.6	5.5	7.2
		Incident	63.2	29.1	59.5	32.5	70.2	25.2	4.7	5.9
		Consequence	77.9	25.1	54.0	34.6	54.6	35.5	5.8	11.6
	No victim	Scene	8.3	7.5	50.6	35.0	36.0	29.6	4.0	10.6
		Approach	17.7	18.2	54.3	32.8	37.0	27.4	9.9	24.8

Fear		Incident	59.4	39.0	54.4	30.6	37.4	33.6	0.9	1.6
		Consequence	67.7	29.9	35.4	28.6	47.4	36.1	1.0	1.9
	Victim	Scene	29.4	33.4	60.7	25.8	73.1	28.5	3.8	5.4
		Approach	45.7	32.7	60.6	24.3	70.2	28.8	5.7	7.2
		Incident	79.4	19.5	58.4	35.1	66.2	31.9	4.8	6.4
		Consequence	84.1	15.0	56.7	33.0	56.6	28.7	3.5	5.0
	No victim	Scene	8.1	11.4	44.7	34.9	55.7	16.1	10.7	27.9
		Approach	21.1	22.3	36.9	31.8	71.7	20.3	13.0	32.2
		Incident	61.4	38.4	37.3	35.8	63.6	25.7	2.0	3.5
		Consequence	63.7	35.2	29.7	37.4	48.1	33.7	1.6	3.0

Table 37. The mean VAS ratings for threat for the crime, police, court and neutral scripts for the need to prove victimisation in court and the no need to prove victimisation in court groups.

Group	Crime		Police		Court		Neutral	
	M	SD	M	SD	M	SD	M	SD
Victim	60.8	19.7	37.3	18.9	58.2	12.9	4.3	6.0
No victim	37.1	22.1	24.9	23.7	37.0	17.3	7.7	17.4

Table 38. The mean heart rate and standard deviations for each stage of the crime, police, court and neutral scripts for the perpetrator present and perpetrator not present groups.

Group	Stage	Crime		Police		Court		Neutral	
		M	SD	M	SD	M	SD	M	SD
Perpetrator	Scene	77.5	14.6	76.0	13.1	77.2	15.1	75.3	15.1
	Approach	78.0	16.1	75.1	13.9	77.5	15.4	74.8	13.9
	Incident	78.7	15.4	76.5	14.3	79.4	15.8	74.6	13.5
	Consequence	76.1	13.5	77.8	14.3	77.4	16.3	75.8	14.0
No perp	Scene	74.0	9.6	71.0	6.6	72.6	13.6	71.9	10.6
	Approach	72.9	6.7	70.6	12.0	71.8	8.8	67.1	6.5
	Incident	71.8	7.2	71.3	7.0	70.3	7.4	70.2	6.1
	Consequence	72.4	9.8	70.0	6.5	69.6	7.9	70.3	8.0

Table 39. The mean VAS ratings and standard deviations for each stage of the crime, police, court and neutral scripts for perpetrator present and perpetrator not present groups.

VAS	Group	Stage	Crime		Police		Court		Neutral	
			M	SD	M	SD	M	SD	M	SD
Threat	Perpetrator	Scene	28.3	28.8	26.2	21.1	42.9	24.6	4.9	7.4
		Approach	39.4	33.4	29.6	26.1	64.6	20.2	4.3	6.6
		Incident	73.9	27.6	38.6	30.3	60.4	29.8	3.6	5.4
		Consequence	72.1	21.4	34.5	30.0	45.6	27.0	3.6	5.1
	No perp	Scene	18.8	20.2	38.4	29.9	42.0	26.0	13.2	29.5
		Approach	40.6	36.4	34.4	27.0	46.6	27.1	18.2	38.5
		Incident	75.4	24.6	41.6	28.2	59.0	22.7	4.0	7.4
		Consequence	70.0	28.6	22.2	18.2	21.0	11.5	3.4	7.6
Violation	Perpetrator	Scene	25.5	30.7	35.2	31.8	39.4	25.0	4.6	6.5
		Approach	36.8	30.2	27.2	23.4	49.9	31.2	5.1	8.5
		Incident	74.1	21.7	45.0	33.9	65.6	30.5	3.6	5.1
		Consequence	72.1	22.8	50.6	35.0	57.2	29.9	5.3	9.4
	No perp	Scene	6.8	12.0	73.2	16.4	40.0	15.0	11.2	25.0
		Approach	25.0	28.5	74.0	21.3	56.4	28.7	13.2	26.8
		Incident	85.4	8.9	87.0	18.5	69.0	13.7	4.6	8.7
		Consequence	97.6	3.9	60.8	24.6	36.8	28.4	1.8	4.0
Control	Perpetrator	Scene	37.1	34.2	41.5	29.2	56.4	28.1	4.6	5.4
		Approach	40.1	30.5	45.9	30.5	66.4	30.5	4.2	6.1
		Incident	69.9	28.3	42.6	26.5	55.9	26.4	4.4	5.8
		Consequence	62.1	25.0	39.8	34.0	56.5	27.8	3.7	4.7
	No perp	Scene	14.2	12.0	70.4	17.4	62.6	16.9	7.6	17.0
		Approach	37.2	23.7	63.4	20.9	68.4	22.5	15.8	33.1
		Incident	81.4	14.8	76.2	25.2	63.8	37.5	3.0	4.1
		Consequence	85.2	15.9	45.4	23.9	48.4	39.6	1.0	1.4
Anger	Perpetrator	Scene	27.3	28.4	33.8	30.2	42.0	32.3	3.4	5.5
		Approach	40.5	35.9	33.1	22.8	46.4	33.5	4.6	6.9
		Incident	53.5	33.4	50.6	31.5	51.6	32.3	4.0	5.7
		Consequence	65.3	25.6	42.1	35.6	51.1	36.9	5.2	10.8
	No perp	Scene	13.0	10.6	68.8	28.1	69.6	18.7	5.6	12.5
		Approach	31.8	17.8	76.8	19.7	60.0	19.0	14.2	29.0
		Incident	85.2	8.7	77.2	21.7	76.2	25.9	1.2	1.8
		Consequence	99.0	1.7	61.2	21.6	54.4	32.4	0.8	1.1
Fear	Perpetrator	Scene	21.9	31.7	49.6	27.6	63.6	28.1	3.4	5.1

No perp	Approach	36.8	33.1	52.5	27.4	65.7	27.4	5.0	6.9
	Incident	70.8	29.2	48.0	37.2	60.6	29.4	4.3	6.2
	Consequence	77.0	21.7	51.6	35.2	55.9	30.0	3.0	4.8
	Scene	20.8	22.2	69.4	33.4	75.2	16.4	14.8	33.1
	Approach	36.4	28.1	50.0	36.2	85.0	11.2	18.0	38.0
	Incident	78.4	28.0	58.0	34.9	78.2	26.6	2.4	3.3
	Consequence	75.4	37.5	33.2	39.4	46.8	32.4	2.2	3.5
