Crime Victims' Coping Styles When Confronted with Undermining Behaviour

Syras Derksen

M.A. Thesis

Department of Psychology

University of Manitoba

Winnipeg, Manitoba

December 15, 2005
Crime Victims' Coping Styles When Confronted with Undermining Behaviour

by

Syras Derksen

A Thesis/Practicum submitted to the Faculty of Graduate Studies
of The University of Manitoba
in partial fulfillment of the requirement of the degree
of
MASTER OF ARTS

SYRAS DERKSEN © 2005

Permission has been granted to the Library of the University of Manitoba to lend or sell copies of this thesis/practicum, to the National Library of Canada to microfilm this thesis and to lend or sell copies of the film, and to University Microfilms Inc. to publish an abstract of this thesis/practicum.

This reproduction or copy of this thesis has been made available by authority of the copyright owner solely for the purpose of private study and research, and may only be reproduced and copied as permitted by copyright laws or with express written authorization from the copyright owner.
Abstract

Crime victims have been traumatized by members of their social world. This type of trauma can leave victims unusually sensitive to actions of their social surroundings (Symonds, 1980). This social sensitivity is unfortunate because communities can react negatively towards victims of crime (Janoff-Bullman, 1985). Undermining behaviour, such as blame or avoidance, from the community can be severely harmful to victims’ mental health (Ullman, 2001). Investigations have found that undermining behavior is more predictive of negative mental health outcomes than social support (Ullman, 1999). Victims’ attempts to use approach coping strategies (Lazarus, 1984), such as problem-solving, often make them more likely to receive negative reactions from others. As a result, to avoid these unpleasant interactions, victims may change their method of handling their trauma to more avoidant coping strategies (Ullman, 1996). This research project investigated undermining behaviour, coping styles, and stress in 52 crime victims contacted through the Victim Companions Program. Victims Companions is a provincial government program designed to give victims support as they deal with the aftermath of their crime and their journey through the justice system. Each victim completed a package containing self-report measures of stress, coping, and undermining behaviour. Responses were analyzed using path analysis. The first hypothesis was that undermining behaviour would be directly associated with perceived stress in crime victims. The second hypothesis was that undermining behaviour would be directly associated with avoidant coping in crime victims. The third hypothesis was that undermining behaviour would be inversely associated with approach coping in crime victims. The fourth hypothesis was that avoidant coping would be directly associated with perceived stress in crime victims. The fifth hypothesis was that approach coping would be inversely associated with perceived stress in crime victims. Results from the path analysis did
not support the hypotheses. The lack of fit with the hypothesized model and the findings from a modified model suggest that the outcome measure of perceived stress does not adequately represent the long-term consequences of crime victimization. In a post-hoc analysis, the findings from Ullman (1996) with recovery as the outcome measure were partially replicated. However, the extreme amount of error in this model casts some suspicion on the findings. The present study was limited in its ability to draw conclusions because of the small sample size and cross-sectional design. Future research could further explore the mechanisms through which undermining behaviour affects victims of crime.
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pearson Correlations Coefficients for Selected Demographic and Psychological Variables</td>
<td>42</td>
</tr>
<tr>
<td>2. Descriptive Statistics for Psychological Measures</td>
<td>44</td>
</tr>
</tbody>
</table>
LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Model of Undermining Behaviour, Coping, and Perceived Stress</td>
<td>31</td>
</tr>
<tr>
<td>3. Model Path-estimates of Undermining Behaviour and Perceived Stress</td>
<td>50</td>
</tr>
<tr>
<td>4. Model Path-estimates of Undermining Behaviour and Perceived Recovery</td>
<td>51</td>
</tr>
<tr>
<td>5. Model Path-estimates of Undermining Behaviour, Approach Coping, and Perceived Recovery</td>
<td>52</td>
</tr>
</tbody>
</table>
# Table of Contents

INTRODUCTION ........................................................................................................... 1

Victims of Crime ........................................................................................................ 1

Transactional Theory of Stress .................................................................................. 10

Undermining Behaviour ............................................................................................ 19

Methodological Issues ............................................................................................... 27

Present Research ........................................................................................................ 29

Hypotheses .................................................................................................................. 32

METHOD ....................................................................................................................... 33

Participants .................................................................................................................. 33

Procedures .................................................................................................................. 33

Measures ..................................................................................................................... 34

RESULTS ....................................................................................................................... 40

Social Demographic Characteristics ......................................................................... 40

Descriptive Statistics ................................................................................................. 41

Hypothesis Testing ....................................................................................................... 46

Post-hoc Analysis ....................................................................................................... 47

DISCUSSION ............................................................................................................... 55

REFERENCES .............................................................................................................. 60

APPENDICES

Appendix A: Recruitment Script ............................................................................... 69

Appendix B: Reminder Script .................................................................................... 71
Appendix C: Participant Instructions .......................................................... 73
Appendix D: Consent Form ........................................................................... 74
Appendix E: Social-demographic Characteristics ......................................... 77
Appendix F: Criminal Trauma History ............................................................ 78
Appendix G: Undermining Behaviour Scale ................................................... 82
Appendix H: Ways of Coping Scale ............................................................... 84
Appendix I: Perceived Stress Scale ................................................................. 89
Crime, in most cases, is an act of one person against another that has a long-lasting impact on the victim and on the larger community to which the victim belongs. Victims may experience emotional reactions that include confusion, shock, helplessness, fear, anxiety, and depression (Herman, 1992). Victim’s often feel that there is no reason for their victimization and can be overwhelmed with questions of ‘Why me?’ Their assumptions of a meaningful, rational, fair world, as well as their assumptions of personal invincibility, are shattered and they are often left feeling weak, needy, and unworthy (Krupnick, 1980). This study focussed on crimes that involve a clear perpetrator or group of perpetrators, are interpersonal, and leave a victim or victims in the community. Examples of the type of crime on which this thesis focused are murder, theft, rape, molestation, and stalking. In the past, there has been little research investigating responses to criminal victimization (Frieze, Hymer, & Greenberg, 1987; Kamphus, & Emmelkamp, 1998). Most of the research was directed towards perpetrators and their rehabilitation (Sales, Rich, & Reich, 1987). More recently, investigators have begun investigating different forms of victimization, trauma, and victims’ recovery (Arata, 1999; Kamphuis & Emmelkamp, 1998; Kaukinen, 2002; Middleton et al. 1996; Osborne & Rhodes, 2001). The research suggests that crime victims have some characteristics that make their type of trauma unique (Janoff-Bullman, 1985; Symonds, 1980). Investigations of specific victim groups are more extensive than investigations of crime victims as a whole. Although there are differences between types of crime, there are enough similarities in crime victims’ experiences to group them together meaningfully.

Janoff-Bullman (1985) explains how criminal and non-criminal trauma may have different consequences for victims. The proposed difference between criminal trauma and other forms of trauma stems from the fact that criminal trauma has a perpetrator. Criminal
victimization involves the perception that another human being had the specific intention of causing the crime, and perhaps the intention of harming the victim. However, many perpetrators do not specifically want to harm the victim, despite the fact that their actions have this effect. For example, a thief might steal the wallet of a tourist for the money, not out of malevolence against the owner. This is different from a thief who stole that same wallet out of spite because he did not like the owner. Nonetheless, in both of these examples, the crime was not an accident or an ‘act of god,’ which is enough to change the dynamics of the trauma the victim experiences. Often victims have no awareness of the offender’s motivation and so their perceptions of the incident are unaffected by the criminal’s intention. To take this reasoning even further, in some cases perpetrators may commit a crime accidentally. For example, a computer expert might create a computer virus as an experiment and accidentally let it into a network. None of those affected by the virus knows the identity of the perpetrator, but they most likely believe that the virus was created with the intention of destroying their hard drives. This example shows how it is not the intentionality of the perpetrator, but rather the perception by the victim that the crime was committed intentionally, that differentiates crime victims’ trauma from the experience of other victims.

For the purposes of this investigation, a crime victim was defined as a person who has experienced trauma that is perceived, by that person, to be caused by the actions of another person. This is a broad definition of a crime victim because it can apply to the person who had direct loss or contact with the offender, as well as to the community around the direct victim who feel traumatized. This research focused on those directly affected by the crime and those who are relationally close to the primary victim, through either biological ties or close friendships.

Crime Victims’ Trauma
As already discussed, crime victims are different from other trauma victims because they have perpetrators; however, there is still the question of how this makes crime victims’ trauma different from the trauma experienced by other victims. Janoff-Bullman (1985) describes the inner processes that underlie the sometimes severe emotional reactions and sensitivity that occur after victimization. Her theory is based on the assumptions or worldviews people hold as they live their lives. These assumptions help people move through everyday activities without undue stress. These understandings of the world are known by many different names: “theories of reality” (Epstein, 1973); “structures of meaning” (Marris, 1975); and “schemas” (Alba & Hasher, 1983). People generally operate under positive assumptions of themselves and others. Weinstein (1980) terms this general positivity towards the self and the world “unrealistic optimism.”

Janoff-Bullman’s (1985) theory posits that, after victimization, these assumptions are often called into question or “shattered.” Horowitz (1986) actually defines trauma as events that call into question people’s “inner schemata” or their schema of themselves in relation to the world. The breakdown of a safe, rational, and fair view of the world can be similar for crime victims and victims of other types of trauma (e.g. natural disasters). However, for victims of crime, the experience can be more socially personal. Alice Sebold, a survivor of rape, describes the loss of her world assumptions of safety. “When I was raped I lost my virginity and almost lost my life. I also discarded certain assumptions I had held about how the world worked and about how safe I was” (Sebold, 1990, p 34). This statement evidences a conscious knowledge of an assumption change that can also occur below awareness. Although these broken-down assumptions of the world can be dramatic in crimes that are personal and violent, less is known about crimes that are less severe or more removed from the individual. Most authors treat trauma as an overarching construct through which these processes occur to a lesser or greater extent.
Symonds (1980) describes how crime victims’ specific type of trauma can lead to further injury after the crime. Symonds theory is that many victims experience a “second injury” after the crime. This second injury occurs when victims of crime contact service personnel like police or doctors. As a result of this continuous exposure to traumatized groups, or perhaps because of other reasons, service personnel can become callous and blaming towards victims. Although it is possible that service personnel’s behaviour is solely responsible for crime victims’ second injury, the fact that many groups contact service personnel without adverse effect suggests that crime victims’ specific type of trauma has some role in their second injury. Symonds explains crime victims’ role in their second injury by including a discussion of two differences in crime victims’ trauma. The first is that victims often feel betrayed because the criminals should never have had the opportunity to hurt them. Victims often believe that the justice system allowed the criminal to harm them. For example, criminals often commit crimes after they are released from prison on parole. The victims of these paroled offenders often feel like the justice system is too lenient or incompetent. These feelings of injustice can result in anger towards service personnel and the justice system. Symonds also describes a sensitivity stemming from the loss of control many victims experience after the crime. After the crime, victims face their own powerlessness to control their lives. These individuals experience the breakdown of their feelings of safety, security, and invulnerability. In this state of powerlessness and insecurity, victims often cling to service personnel and others who are supposed to help them after such an event. Doctors and police usually attempt to maintain a professional distance from victims to preserve a degree of objectivity, and to protect themselves and victims from later painful separations. Thus, when these professionals are unable to give victims the support they desire, or do not live up to victims expectations, the victims experience a second injury. Symond’s “second injury” is the feeling of
betrayal because society has let them down by allowing the crime to happen and by not being able to meaningfully help them after they have been traumatized.

Community Reactions

The community’s reaction after the crime is another part of crime victims’ trauma. Becoming a victim often becomes part of a person’s identity and, thus, can change how others react to that person. Changing reactions after the crime can be a disorienting experience for many victims. Community members also sometimes undermine victims. Undermining behaviours are negative behaviours that may contain negative affect, negative evaluations, or behaviours that block the attainment of goals (Vinokur & van Ryn, 1993). This undermining behaviour from the community can make the transition into ‘victimhood’ even more difficult. Ullman (1996) found that 80% of crime victims experienced negative reactions including taking control of the victim’s life, blaming the victim for their victimization, and attempting to distract the victim from their trauma.

The community can negatively affect victims of crime throughout their recovery. When victimization occurs, victims’ first contact is usually with the police and other service personnel. The exchanges between service personnel and crime victims were previously discussed in terms of victims’ extra sensitivity to these interactions. However, there are many interactions after the crime that are potentially damaging for anyone in recovery. Damaging interactions with the police and court system can occur when these groups’ agendas interfere with crime victims’ healing. The police usually have the primary motivation of solving the crime and finding the offender. This agenda can sometimes interfere with their ability to be sensitive to victims’ feelings (Bolin, 1980). In some cases, the police suspect that the victim committed the crime. Victims are often suspects in cases in which they have a motive to commit the crime, like an
insurance claim in a vandalism case. They might also be considered suspects when they know or are related to a missing person or someone who died suspiciously. These suspicions can cause the police to be rough and blaming in their interactions with victims. After victims have dealt with the police, some must still work through the court system. Similar to the police, the court system is not focused on victims or their experience of justice. Instead, they are concerned with the adherence to criminal law. Again, this goal can leave victims feeling uninvolved and unimportant (Sales et al., 1987). Recently, there have been significant court reforms in the form of victims’ compensation, victims’ advocates, and victim impact statements. Although these changes may help victims to feel more understood and less confused, there is still no evidence that they significantly improve victims’ experience (Herman, 2003). Research shows that victims who have significant trouble with the justice system have higher levels of Post Traumatic Stress Disorder (PTSD) symptoms than other victims, including those who did not report the crime to the police (Campbell et al., 1999).

While victims are dealing with the justice system, they must still deal with their new status within the general community and their family. It is unfortunate that, in many instances, victims are held responsible for the crime happening to an extent that is greater than they deserve (Burt & DeMello, 2002; Shaver, 1970). Although there is research on many different crimes, rape is a commonly cited crime where victims tend to be blamed for causing the crime (Janoff-Bullman, 1985). For example, victims might be blamed for wearing clothes that were too revealing or being in the wrong neighbourhood. Blame from the community is also associated with less help from others (Berkowitz, 1969; Brickman, et al., 1982; Schopler & Mathews, 1968). It is not surprising, knowing how the community can blame rape victims, to find evidence that rape victims sometimes blame themselves (Arata, 1999). This literature has also shown that
all forms of self-blame lead to maladaptive coping and greater levels of PTSD (Arata & Burkhart, 1998; Arata & Burkhart, 1996).

It is relatively easy to understand why victims can have negative reactions to the undermining and blaming behaviours they sometimes encounter after being victimized. It is more difficult to understand why community members have negative reactions to victims of crime. These reactions are difficult to understand because, normally, victims are thought of as needing care and understanding. Janoff-Bullman (1985) argues that this lack of support for crime victims stems from the dynamics resulting from the presence of a perpetrator. She argues that when communities attempt to explain the trauma found in natural disasters, they often explain them as occurring by chance. However, because victims of crime have a perpetrator, there is likely more to the victim being chosen by the offender than chance. If the victim knows the offender, the community might conclude that they should have seen some warning, or believe that they did something that provoked the offender. If this is the case, the community might put some of the responsibility of the crime on the victim. Even when the offender is a stranger, community members might suspect that the victim did something that attracted the offender, or that they did not do enough to prevent the offender from committing the crime.

These different explanations for criminal offences are based on the premise that people view human behaviour as rationally based. If the offender's thinking is rational, his or her actions might have some justification. The victim might have done something or not done something that allowed the offender to justify the crime. For example, the victim might have called the offender a name, thus giving the offender justification for injuring or killing the victim. This example of offender “rationality” is more obvious, but the rationality of some offenders is more obscure. A rapist may believe that a woman asked to be raped because she
dressed provocatively or did not fight back. Despite the obscure nature of these rationalities, they may still be interpreted as displaying some thinking on the part of the offender. That is, the offender is assumed to have not committed the crime on an entirely random basis. These rationalities place blame on victims because they imply ways that victims could have prevented the crime. If the victim had not called the offender a name, the offender would not have committed the crime. Community members might actually read documented rationalities given by the offender, they may infer these rationalities from some piece of evidence, or they may believe the offender had some rationality because of assumptions they have about how offenders think. Although most of the time community members understand that the crime was not the victim’s fault, the offender’s perceived rationality makes this conclusion less than inevitable.

Janoff-Bullman (1985) argues that there are other reasons why the community may undermine crime victims. Community members may distance themselves socially from victims because it helps them maintain their own assumptions of invulnerability. Community members can socially distance themselves from victims in any number of ways. They might believe that the offender targeted the victim because of the victim’s actions. This allows community members to believe that they will remain safe if they avoid the behaviours that attracted the offender to the victim. Community members may also separate themselves from the victim’s character. They might do this by deciding the victim has poor judgement or cannot handle relationships. This again allows community members to feel safe because they are different from the victim.

Unfortunately, once a community has socially distanced itself from the victim, it is more likely that victims will receive negative reactions and a lack of social support. Investigators have found a social categorization approach helpful in explaining why people help each other in some
situations and not others (Levine & Thompson, 2004). The central variable within this approach is whether the helpee is considered part of the helper's in-group (Levine et al., 2002). It has been conceptualized as a sense of shared personal identity and has been extended to include shared social identities (Cialdini et al., 1997). Dovidio et al. (1997) have defined this sense of shared identity as a "...categorization of another person as a member of one's own group" (p. 104). These researchers showed that people are more likely to help others when they view the helpee as part of the helper's in-group.

Levine and Thompson (2004) manipulated British university students' sense of shared identity. The researchers had the students identify with either their British identity or their European identity. To accomplish this, the researchers had two different questionnaires, a British and a European version. The British questionnaires had a larger Union Jack flag set against smaller Japanese and American flags, references to the students as a British subject pool, and references to the study as British. The European version was the same as the British, only the Union Jack flag was replaced with European Union flag, and it used European references instead of British. The researchers found that, in a disaster, students in the European identity group were more likely to offer help to European disaster victims. The authors argue that this research shows that shared identity is a better predictor of helping behaviour than geographical location or emotional response. This research helps elucidate how the re-defining that occurs after a person has been victimized by crime might result in social distancing and potentially negative reactions. If others classify victims as being different, it is possible that a by-product of this re-classification is fewer supportive behaviours and an increase in negative interactions.

To summarize, victims of crime undergo trauma that is sudden and potentially severe. The crime confronts victims with the reality that others wish to harm them or gain for themselves
without regard for the feelings or safety of others. The crime usually forces victims to deal with service personnel such as police and other justice officials. These interactions can sometimes be helpful in gaining a sense of justice, but they can also be traumatizing and may re-victimize. Often victimization can force people to re-define who they are in relation to the world. This status as victims of crime can sometimes be helpful in gaining resources such as victim compensation and in gaining some emotional support from others. However, many times becoming a victim can lead to blame and social distancing from the community. Victims' sensitivity, because of their trauma, combined with the potential for negative reactions from others, can be very damaging for victims after the crime.

Transactional Theory of Stress

The term stress first originated in the physical sciences and meant the force a rigid object can withstand before breaking. Psychologists adopted the stress concept to describe how people withstand the emotional and physical events around them. The term ‘break’ refers to a spectrum of negative psychological reactions individuals are prone to experience when they are overwhelmed. Victims of crime potentially experience a great deal of stress during, and after the crime (Herman, 1992). Stress is an important variable to study with this population because of the well-supported association between stress and negative mental health outcomes (e.g., Lee, Koeske, & Sales, 2004; Bovier, Chamot, & Perneger, 2004). To help understand how people react to negative or challenging circumstances, investigators have put forth a number of different stress models. Many different types of events can be stressful for people. However, even if individuals are confronted with the same experience, their reactions can vary considerably (Canino et al., 1990; Phifer, 1990). Through the years, researchers have made many attempts to develop models that explain peoples’ complex reactions to normative and extraordinary life
events (for an overview, see Bartlett, 1998).

Hans Selye (1950, 1951-1956), who conceptualized one of the first stress models, focused on the reactions animals exhibit when stressed. He described stress as a physiological reaction occurring inside the organism. These physiological reactions, termed the General Adaptation Syndrome, are a set sequence of three bodily reactions. The sequence begins with the alerting response, which is followed by the resistance response, and ends when the organism reaches exhaustion. Physiology forms the basis for this stress model, which makes it generalizable to many different species.

Other investigators have attempted to extend this research by focusing on the stimuli that cause the stress reaction. To understand stressful stimuli, investigators attempted to create categories of events that are likely to be stressful (Elliot & Eisdorfer, 1982; Lindemann, 1944). For example, some of the stressors that might be included in catalogue of stressors are “death of a spouse or other family member,” “marriage,” or “vacation” (Zimmerman, 1983).

After extensive exploration, recent authors criticized both of the above models. The main criticism brought against these approaches is that they do not explain the variability in stress responses observed in humans (Hobfoll, 1989). This includes the variability observed between different persons who experience the same stressful stimuli, as well as the variability in stress reactions observed in a person who experiences the same stressful stimuli over time. This criticism is especially relevant for victims of trauma. Victims who experience the same trauma can have vastly different reactions (Bowman, 1997). Furthermore, after a trauma, victims can experience different levels of stress as they try to cope. One example of this fluctuation in stress is the fact that victims often experience higher levels of stress during the anniversary of the crime.
The model used in most current research is the transactional model of stress (Lazarus, 1966; Lazarus & Folkman, 1984). The transactional model of stress asserts that individuals' perceptions largely determine whether stimuli are stressful. The most important perception or appraisal is the balance (ranging from positive to negative) between perceived demands and perceived resources available to meet demands. The more negative the balance, the greater the resulting stress. The model also includes a range of coping behaviour, which helps explain peoples' changing reactions to stress over time. The transactional model conceptualizes stress as a 'transaction' between the individual's perceptions and the reality of the environmental challenge or threat.

There are many other stress models in the literature. Investigators have used some of these stress models more extensively than others (for a review, see Hobfoll, 1989 or Bartlett, 1998). However, the only other model that is used extensively with trauma is the Conservation of Resources (COR) model of stress (Hobfoll, 1989). This theory has been used in particular with victims of natural disasters (e.g., Freedy, Shaw, Jarrell, & Masters, 1992). The COR model of stress focuses on the actual physical and psychological resources of individuals. The more a situation taxes their resources, the more stressed they become. Researchers in the trauma area are attracted to this theory of stress because resources are relatively easy to measure, and because its focus on physical and psychological loss is consistent with these victims' experiences. Although the COR model is relatively simple and has conceptual parallels to victims experience, it does not take into account the persons' subjective appraisals of their situation. Thus, because the transactional model of stress better accounts for crime victims' perceptions and coping strategies, the proposed research will utilize the transactional model of stress rather than the COR model.

The critical role of cognitive appraisals in the transactional model will be elaborated upon next.
Cognitive Appraisals

The transactional model of stress is based on the cognitive appraisals people make when they interact with the environment (Lazarus & Folkman, 1984). In this process of appraisal, people assess the balance between their perceived demands and perceived coping resources. People assess situations as irrelevant if they think the environment holds no positive or negative consequences. For example, if a person lives in Canada, with no connection to Africa, and the evening news reports a deadly heat wave in Africa, the heat wave will probably be assessed as irrelevant. In turn, if a situation is appraised as irrelevant, it will not be considered a demand to which a response is necessary.

Once people have identified the relevant demands and resources, they assess whether they have sufficient perceived resources to manage the perceived demands. If demands exceed resources, the outcome will be negative and their stress is high. If demands and resources are roughly equal, the outcome will be perceived as uncertain and they will have moderate levels of stress. If resources exceed demands, people will perceive the outcome as positive and their stress will be low. Peoples’ resources in this model are conceptualized as coping skills combined with material, social, and psychological resources. People’s resources can range from extensive to minimal.

These assessments of the situation are continual over time. A changing appraisal is termed a re-appraisal. Individuals re-appraise situations repeatedly as their perceptions of demands and resources, including coping resources, change over time as new information is factored into the appraisal process.

Coping

Lazarus and Folkman (1984) define coping as the “...constantly changing cognitive and
behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person” (p. 141). The term coping was first used in animal experimentation and in psychoanalytic studies. Briefly, within the animal field, coping refers to the animal responses that successfully reduce arousal by neutralizing dangerous or noxious stimuli (Miller, 1980). However, as the coping construct was adapted for use with human populations, it became more refined and complex. Here coping was used to classify people according to their usual ways of dealing with situations. For example, a person can be classified as a conformist, obsessive-compulsive, suppressor, repressor, or sublimator (see Loevinger, 1976; Shapiro, 1965; Vaillant, 1977). The transactional model of stress is the latest to adapt the coping construct to humans.

The transactional model differs from prior formulations in two ways (Lazarus & Folkman, 1984). The first important aspect of the transactional formulation addresses the problem of some investigators confounding coping with outcome. That is, within some research, coping only occurs when the person successfully reduces the stress. This is circular reasoning because, within this framework, there is no way to identify ways of coping that are not helpful. Therefore, the transactional definition defines coping as ‘efforts to manage...demands’ (Lazarus & Folkman, 1984, p. 141). In effect, this aspect of the definition defines actions as coping even if they are not successful at reducing stress, as long as they are activities enacted with the purpose of reducing stress. This part of the definition allows coping strategies to not only be unsuccessful, but also to be strategies that do not lead to problem resolution. That is, coping is only an effort to ‘manage’ the situation and, as such, coping can include defensive or avoidance strategies that may reduce stress in the short-term, but do not lead to mastery over the situation. Second, in the transactional formulation, coping is conceptualized as a process rather than as a
trait. As a process, coping is constantly in flux and there is always the possibility of change. These changes occur within the context of the previously discussed cognitive appraisals and re-appraisals people make as they interact with their environment. Lazarus and Folkman (1984) discuss three main aspects of this transactional or process approach to coping. First, coping is what individuals think and do at any given time, rather than what people usually or typically think or do. This is different from the trait approach to coping, which attempts to identify typical coping styles. By formulating coping as what people do moment to moment, the transactional approach can look at the process individuals go through as they deal with situations. The second aspect of this approach is that coping efforts are always considered within the situational context. That is, when researchers consider different coping reactions, they also consider the situation in which these coping strategies are used. Keeping coping in the context of the situation helps researchers realize how people’s choices of coping strategies are not just an expression of a trait but, instead, are a reaction to their changing perceptions of their environmental demands and coping resources. Finally, under the process approach, coping strategies can change as an environmental demand changes over time. A close connection exists between the shifts in coping strategies and the re-appraisals people make as they interact with their environmental demands.

*Coping styles.*

Throughout the process of coping with situational demands, people strive to find different coping strategies (cognitive, behavioural, and/or emotional) that will help them successfully handle the situation or remove the stress. Lazarus and Folkman (1984) make an overall distinction in coping strategies (i.e., avoidance coping vs. approach coping) that can apply to all coping, no matter what situational demand people are striving to handle. In general, people use avoidant coping strategies when their appraisals lead them to the conclusion that it is not possible
to successfully meet the situational demand. When people appraise a demand and believe that it can be met, they are more likely to choose an approach coping strategy.

There are many different specific strategies within both the avoidant and approach categories of coping. The avoidant style of coping encompasses strategies that deal with how the individual views the stressor, either by redefining the stressor or by avoiding the stressor entirely. Some of the avoidance strategies have been called minimization, distancing, and selective-attention. These strategies are directed towards reducing the emotional impact of the stressor through defensive strategies.

Some forms of avoidant coping use selective comparisons to reduce distress. In these instances, an upsetting situation is compared with even more upsetting situations to reduce distress. For example, comparing a low grade on a test with another even lower grade might decrease distress. Another avoidant coping strategy is to diminish the relevance/importance of the distressing situation. For example, after not getting a job people might decide that they did not want that job anyway. In each of these situations, stress is reduced through re-defining the meaning of the situation. Both of these strategies attempt to reduce stress without changing the situation. Thus, they are strategies that are useful when the person appraises the situation as unchangeable. Under this logic, crime victims are more likely to use this style of coping because it is impossible for them to go back and change the fact that the crime happened. This is not to say that this is the only coping strategy that victims of crime have available.

Unfortunately, avoidant coping is not very adaptive for victims of crime. Research conducted with rape survivors has found that avoidance coping is negatively related to psychological recovery (Cohen & Roth, 1987; Santello & Leitman, 1993). Other researchers have found that the influence of avoidance coping depends on when you measure it after the
victimization. Frazier et al. (1995) found that rape victims using avoidance coping experienced less distress immediately after the crime but more distress six to twelve months after the crime. The eventual effect of avoidant coping on victims' recovery is negative. Kamphuis et al. (1998) found that this relationship is generalizable to other crime victims, in that greater avoidant coping predicted worse psychological outcomes for victims of bank robberies.

Approach coping is the other classification Lazarus and Folkman (1984) use to group different coping behaviour. This style of coping involves actively attempting to solve problems. These activities include defining the problem, generating alternative solutions to the problem, weighting these potential solution’s costs and benefits, and finally choosing and implementing the solution. To help distinguish approach coping from avoidant coping, it is important to identify the main components of problem-solving. These include having an objective, along with analytic strategies used towards achieving the objective. Outward-directed approach coping strategies are the most common. An example of an outward-directed coping strategy is solving a math problem on a final exam. Solving the math problem is an approach coping strategy because it has an objective and uses analytic strategies to achieve this objective. It is a successful coping strategy, if people using the strategy can solve the math problem, because it reduces the threat of failing the test, and potential feelings of inadequacy or sanction that might follow this failure. However, approach coping strategies can be directed inwards as well as towards the outside (Kahn et al., 1964). An example of an inward approach strategy is learning a new skill.

It is possible for victims to use approach coping strategies when they are dealing with their trauma (Kamphius & Emmelkamp, 1998). They may decide to help in taking action against their offender. This could be in the form of laying charges or testifying. However, there are other examples that are less action-oriented or obvious. For example, getting counselling might be part
of a problem-solving strategy. In other cases, actions as simple as getting out of bed and having a shower can be part of the victim’s problem-solving strategy.

Empirical research has found that approach coping strategies are either neutral or positively related to positive psychological outcomes (Ullman, 1999). However, some researchers argue that both approach and avoidance coping are equally effective when they are used in the appropriate situation (Folkman, 1984). To cope well with situations, it is important to have a good match between the coping style and the situation. More controllable situations should be dealt with using approach coping strategies, whereas more uncontrollable situations are better managed with avoidance coping strategies. With this view, people cope ineffectively when they misperceive either their level of control or which coping strategy is best for their level of control. Baum, Fleming, and Singer (1983) studied the coping process of individuals who experienced the nuclear accident at Three-Mile Island. The victims of this disaster perceived their situation as uncontrollable. Thus, when they used avoidant coping strategies, they had better psychological outcomes than when they used approach coping strategies.

Crime might seem like it matches best with avoidant coping strategies because it is uncontrollable. However, crime seems to be an exception to the rule. As already mentioned, crime victims who use avoidant strategies have worse psychological outcomes (Cohen & Roth, 1987; Frazier et al., 1995; Green, Streeter, & Pomeroy, 2005; Kamphuis et al., 1998; Santello & Leitman, 1993). To explain this exception, it is helpful to look at how crime victims’ trauma is different from the trauma experienced by other victims. In other types of uncontrollable trauma, victims sometimes cling to members of their social support system. In fact, some forms of natural disasters seem to bring out more altruistic behaviour from community members (Kaniasty & Norris, 1995). However, victims of crime have been victimized by their social
world. Thus, crime victims who use avoidant strategies will either avoid their social surroundings because they are perceived as dangerous or change their perceptions of their social surroundings to reduce stress. Another potential appraisal might be the belief that others caused the crime or increased their trauma, which helps reduce the victims’ own feelings of responsibility. These avoidant strategies could eventually contribute to a lack of trust and disconnection from society in general (Herman, 1992). Avoidant coping might seem to be the best strategy for victims because of victims’ lack of control but, when these strategies are used to manage their social world, the effect of avoidance can be negative.

Undermining Behaviour

After victims have gone through the traumatic experience, they are sometimes confronted with undermining behaviour (Andrews, Brewin, & Rose, 2003; Ullman & Filipas, 2001; Zoellner, Foa, & Bartholomew, 1999). These behaviours can take many different forms, such as blame, avoidance, or hatred. Victims’ sensitivity after the crime compounds the trauma inflicted by these unsupportive behaviours after the crime. Undermining behaviour can involve (a) negative affect, e.g. anger or dislike, (b) negative evaluation, e.g. criticisms of the person’s actions, efforts, or attributes, and (c) behaviours that block or hinder the attainment of goals, e.g. not believing victim’s stories, not allowing victims to meet their offender (Vinokur & van Ryn, 1993).

The close connection between social support and undermining behaviour calls into question the nature of the relationship between these two constructs. The issue involves whether these two ideas are one construct, are on a continuum, or are two separate constructs. If these two ideas were on a continuum, it would mean that low social support was actually the same as social undermining. Likewise, if these two constructs were on a continuum, high social support would
equate with lower levels of undermining behaviour. Vinokur & Van Ryn (1993) recorded the responses of unemployed individuals to measures of undermining behaviour and social support. They used structural modelling techniques to test two models, one with both social support and undermining behaviour loaded onto one factor, and another model with the two variables left to vary. In their analysis, the model that contained the constructs as independent accounted for significantly more variance than the model that contained the constructs as one factor. They concluded that, even though social support and undermining behaviour are strongly inversely correlated (ranging from -.63 to -.76), social support and undermining behaviour independently affected participants' levels of mental health and stress. Therefore, a person can theoretically experience high social support and high undermining behaviour at the same time and, theoretically, even from the same person. For example, a man could offer to drive his co-worker home after work and, while they are driving home, berate his co-worker for poor work performance. In this example the man is giving his co-worker social support by driving him or her home, while at the same time displaying undermining behaviour in the diatribe he gives his co-worker as they drive. In Vinokur & Van-Ryn's analysis, they also found that social support and undermining behaviour had different impacts on participants. Social support had weaker positive effects on participants' mental health with little variance across participants. Undermining behaviour had stronger and more volatile, or inconsistent, effects on participants' mental health.

Although undermining behaviour has not been studied as extensively as socially supportive behaviour, recently researchers have found it to be a potent predictor of distress (for a review of these studies, see Ullman, 1999). Investigators have often found that social support has negligible effects on mental health when compared with undermining social behaviour (Davis,
Brickman, & Baker, 1991; Finch, Okun, Barrera, Zautra & Reich, 1989; Okun, Melichar & Hill, 1990; Pagel, Erdly, & Becker, 1987; Rook, 1984; Ullman, 1996; Ullman & Filipas, 2001; Zoellner, Foa, & Bartholomew, 1999). It is still unclear why social support would show non-significant or weak relationships with outcomes, whereas undermining behaviour would show strong impacts on victims’ outcomes (Ullman, 1996).

Rook (1984) was one of the first researchers to investigate unsupportive behaviours. She examined the affect of socially supportive relationships and socially undermining relationships on the well-being of 120 widowed women. Participants were asked how many people in their life filled different supportive functions (e.g. companionship, emotional support, instrumental support etc.). The women were then asked how many people were sources of various social problems (e.g. privacy invaders, promise breakers, anger provokers, etc.). This study resulted in two major findings. The first was that socially supportive and unsupportive behaviours were not empirically related. That is, the number of social supports reported was unrelated to the number of social problems. Moreover, there was no relationship between the number of problematic others and the number of supportive others. The study’s second finding was that supportive relationships were positively related to well-being and unsupportive behaviours were negatively related to well-being. However, socially supportive ties were only positively related to well-being when they involved positive affect, as opposed to instrumental support. Rook concluded that researchers should study the specific content of the social interactions to better predict positive or negative outcomes. Just assessing the number of social ties or involvement in social networks did not provide enough information to predict accurately mental health outcomes.

After Rook (1984) was published, follow-up studies investigating undermining behaviour were conducted. They supported her conclusions and emphasized how different this perspective
was from the theoretical thinking of the time. Pagel, Erdly, and Becker (1987) conducted a longitudinal study looking at how helpful and unhelpful behaviours predict depression in spousal caregivers of Alzheimer’s patients. Their investigation concluded that helpful behaviours from social networks were unrelated to depression, whereas upsetting interactions with social networks significantly predicted depression. In addition, because their research was longitudinal in design, they were able to control for initial depression levels. Pagel et al. found that, even when controlling for earlier depression, upset with social networks significantly predicted depression. Thus, they were also able to discard a suspicion that upsetting interactions with social networks were just another measure of depression.

Pagel et al. (1987) attempted to explain how their results fit with previous findings that network satisfaction was related to well-being. Research has generally found that level of network social support is a good predictor of mental health outcomes (Williams, Ware & Donald, 1981). Findings that suggest positive and negative social interactions are independent and relate to mental health outcomes differently seems to go against this well-established finding. Pagel et al. suggested that helpful and unhelpful behaviours of others combine into an overall feeling individuals have towards their social networks. They also suggested that these two types of interactions are weighted differently; that is, negative social interactions are weighted more heavily than positive social interactions. Therefore, when people report that they are satisfied with their social networks, they could be saying that they have relatively few complaints.

Pagel, et al.’s (1987) conceptualization of undermining social interactions as being weighted more heavily than other social interactions is consistent with research completed more recently. In some instances, social support has so little correlation with positive outcomes that it
shows negative relationships with adjustment. Davis, Brickman, and Baker (1991) found that positive social interactions with others were directly related to negative adjustment in rape victims. They concluded that individuals in greater need elicit more social support than others who were not experiencing such severe symptomology. Thus, in this study, the power of social support as a sign of needing help was more powerful than social support's ability to enhance people's adjustment. Ullman (1996) suggests that, in such traumatic situations, perhaps most forms of emotional support, or tangible forms of support, do little to ease the pain the victim has gone through. In fact, victims sometimes view these forms of support as unhelpful. Ullman found that only listening was positively related to victims' recovery. Listening allows the victim to talk about their assault, which is already known to be important to recovery from traumatic experiences (Pennebaker, Kiecolt-Glaser, & Glaser, 1988). Ullman suggests that other forms of emotional support were unhelpful because they cannot take the pain away, or because they were unwanted.

The reasons why socially supportive behaviours fail to help victims do not explain why negative social reactions are such powerful predictors of negative outcomes. Vinokur and van Ryn (1993) suggest that undermining social behaviour is particularly damaging because it is not only the absence of help with coping, it is also a direct threat to existing social resources. For example, if people are told that they are lazy, their perception of themselves as industrious is threatened and potentially reduced. In this case, the undermining behaviour threatens the coping resources of the insulted people. Thus, undermining social behaviour can be conceptualized as a stressor. This conceptualization is consistent with Lakey et al.'s (1994) finding that negative social interactions were related to lower self-esteem, low interpersonal trust, external control beliefs, and many dysfunctional attitudes. Vinokur and van Ryn (1993) continued to theorize that
undermining social behaviours could be especially damaging when individuals are in stressful situations or when they are in relationships where they have less power. This could be especially true for victims of crime because the undermining social behaviours exacerbate the already damaged assumptions victims hold about the goodness of society.

Victims might be particularly vulnerable to undermining social behaviour because such behaviour is coming from individuals from whom the victim expects positive interactions. This unexpected change in social interactions can exacerbate already damaging negative social interactions. Pagel et al. (1987) found that the expectation of negative interactions seems to have a role in how people respond. In their research, Pagel et al. found that individuals who had higher satisfaction with their social networks were more negatively affected by undermining or upsetting social interactions than individuals with lower levels of satisfaction. To explain these interesting results, Pagel et al. used attributional theory. Attributional theory states that individuals order the world in ways that allow them to gain the greatest sense of control (Kelley, 1972). As part of this theory, expected events are seen as less informative than unexpected events (Pyszczynski & Greenberg, 1981). Another way of stating this is that unexpected events are given more weight when making conclusions about the world. Put in the context of Pagel et al.'s findings, when people expect positive social interactions and then experience the opposite, these negative social interactions are experienced as more salient than if they expected negative social interactions. Thus, when negative social interactions are unexpected, they predict depression better than when negative social interactions are expected. This finding is especially relevant for victims of crime. Many victims have positive social networks and expect this to continue. After the crime, their social network might change for the worse. The above attributional model suggests that these sudden, unexpected, negative interactions can be
especially harmful.

Undermining behaviour might also negatively affect victims' recovery by pressuring them towards less successful coping strategies. Helpful coping strategies that lead victims to mastery of their situation can sometimes put victims in situations in which they are dependent on others. For example, if victims want to hold their offenders responsible for the crime, they have to go to the police to report the crime. Seeking justice could be a sign of a problem-solving approach to the situation that could lead to a sense of mastery. However, negative reactions from the police could stop this coping approach by victims and redirect them towards more avoidance oriented coping strategies. Ullman (1996) conducted a study investigating the effect of sexual assault on 155 victims from the community. Participants were given a checklist measuring approach and avoidant coping strategies, a checklist of different positive and negative social reactions, and two measures of adjustment. Ullman split the analysis into many different path analysis models to test whether coping mediated the relationship between undermining behaviour and two different outcome measures. In the first model, Ullman found that avoidant coping mediated the relationship between negative reactions and psychological outcomes in victims' of sexual assault. The mediating effect of avoidant coping accounted for enough variance to eliminate the direct relationship between undermining behaviour and psychological symptoms. Specifically, victims who experienced negative reactions were more likely to use avoidance coping styles, which led to negative psychological adjustment. However, it is also possible that victims who engaged in avoidant coping strategies attracted more negative social reactions. To test for this, Ullman calculated additional path models and showed that negative social reactions did not mediate the relationship between avoidance coping and psychological symptoms. Even with this confirmation, Ullman was cautious about concluding that avoidance
coping mediates the relationship between negative reactions and adjustment because the finding was not duplicated with the outcome measure of self-reported recovery. This negative result, however, might be a methodological artifact because self-reported recovery was measured using only one question, whereas the adjustment checklist contained fifteen symptoms and had a Cronbach alpha of .73.

Surprisingly, in another model, Ullman (1996) found that undermining behaviour was directly related to greater approach coping, and approach coping was in turn directly related to greater psychological symptoms. This finding is surprising because of approach coping’s normal association with positive outcomes in rape victims (Ullman, 1999). However, Ullman did not comment on this finding because, in the model, undermining behaviour was significantly directly related to psychological symptoms and, thus, approach coping did not mediate the relationship between undermining behaviour and psychological symptoms. This interesting finding might become clearer in a more complete model that accounts for both approach and avoidant coping’s role in victims’ recovery process.

To summarize, researchers have found that negative interactions predicted mental health outcomes better than socially supportive interactions. In fact, socially undermining behaviour is not just the absence of support, but can be thought of as a significant stressor. This stress is especially damaging when individuals are in unbalanced power relationships, when it blocks helpful coping strategies, or when the undermining behaviour is not what victims expect from their social network. This stress could also be especially damaging for individuals who have already become vulnerable to beliefs that the social world is dangerous and harmful. This potential vulnerability to the effects of socially undermining behaviour is unfortunate because the conditions which make individuals vulnerable to their effects are also the conditions that make
undermining social interactions more likely. The crime itself is likely to induce negative reactions or avoidance from others, which can be very harmful to victims because of their already vulnerable condition.

Methodological Issues

There are many limitations to doing research with victims of crime. The foremost problem with this population is their availability. Although some crime victim populations are more accessible than others, in general researchers find it difficult to get adequate samples of crime victims. The nature of their criminal victimization also makes it ethically impossible to manipulate crime victims' traumatic experience. Thus, researchers have been largely unable to determine causal relationships. Therefore, the major methodological issues for this proposal come from the inherent limitation of doing research with victims of crime.

Crime victim research encompasses a large area because there are so many different kinds of crime victims. The research on some types of victimization is much larger than on other types of victimization. Judith Herman (1992) attempted to write about the entirety of victims' experiences. However, in much of her work, she has been forced to rely upon victims' accounts and on her own clinical experience. Many of her findings on victims’ recovery were generalized from research on war veterans, sexual assault, and childhood sexual abuse. Most of the research on victims of crime is done with victims of sexual assault, who seem to be more available to researchers. Although many of the findings for this population may be generally relevant for victims of crime, there are other types of crime victims whose responses could differ drastically. For example, research findings drawn from rape victims will probably be quite different from research conducted with burglary victims. Thus, it is important for researchers to pursue research opportunities with different types of crime victims.
Even when researchers have opportunities to do research with crime victims, there are still many limitations to their research. One of these is the number of participants. Victims of certain crimes (e.g., murder victims) are so difficult to contact that researchers are forced to rely on extensive exploratory interviews with the few victims they can contact to learn about their experience (e.g., Herman, 1992; Parappully, et al., 2002). Recently, some researchers have been able to contact larger groupings of non-sexual-assault victims (e.g., Kamphuis & Emmelkamp, 1998; O'neill, & Kerig, 2000). This type of research is still scarce. The research literature on sexual assault victims is quite different from other types of crime. It seems that many researchers in this area use large numbers of undergraduate students and include those participants who have experienced sexual assault in their study (e.g., Arata, 1999). Unfortunately, this type of participant recruitment is not possible for crime victims, who are less prevalent in the community or whose trauma is less lasting. The difficulty researchers have finding victims has also restricted their ability to research victims over time. For example, university students who have experienced sexual assault will vary in how long ago they were victimized. In a sample from this and many other populations, it is difficult for researchers to compare sufficiently large numbers of individuals who have experienced similar trauma at the same time in their past. Although this research could be completed, it would be awkward and unwieldy. It would be much more productive if researchers could study victims longitudinally over a long period of time beginning just after the crime. Unfortunately, it is difficult accessing victims for this type of research. For these reasons, most research with crime victims is cross-sectional in nature.

For obvious reasons, the manipulation of crime is, in most cases, extremely unethical. This is certainly true for crime that causes long-lasting or severe trauma. These ethical concerns have severely restricted research with victims of crime. In some instances, this restriction has left
Researchers unable to make causal attributions. For example, in research on self-blame, the methodology doesn’t allow for conclusions to be drawn about what causes self-blame in rape victims. Some researchers assume or speculate that rape causes self-blame in these victims. These speculations about causality are usually incomplete and often wrong. Bowman (1997) argues that it is only an assumption that the traumatic event is more powerful than individual differences in causing individual responses after the crime. Instead of the trauma, Bowman argues that peoples’ histories of mental illness predicts their subsequent level of distress, and questions how much influence one event can have on an individual. These arguments emphasize the need for caution in drawing causal conclusions.

This discussion has briefly addressed some of the major methodological issues that must be managed when doing research with crime victims. Many of them stem from difficulty contacting victims of crime. In addition, researchers must be exceedingly careful when dealing with populations that are sensitive to further victimization. It is unfortunate that such an important population as crime victims has so many limitations for researchers. However, despite these challenges, researchers should still be able to discover many things about them.

Present Research

The literature reviewed thus far leaves unanswered the question of how coping and stress are related to each other in victims of crime. Given the research already completed with crime victims and other populations, the present research tested the model presented in Figure 1. Each arrow in this model represents a directional relationship, and the sign next to the arrow represents whether that relationship is theorized to be positive or negative. As each arrow in the model represents an association, each arrow also represents a hypothesis. This model contains five hypotheses; each one based on relationships found in previous investigations.
Ullman’s (1996) study comes closest to describing the relationships between undermining behaviour, coping, and stress. As discussed earlier, Ullman found that avoidant coping behaviour significantly mediated the relationship between undermining behaviour and psychological symptoms in rape victims. This study also found that approach coping did not significantly mediate the relationship between undermining behaviour and psychological symptoms. However, Ullman’s analysis investigated these two path analysis models separately. Thus, this investigation did not describe the relationship between undermining behaviour and psychological symptoms when both potential coping mediators were taken into account. The model in Figure 1 was designed to take both of these coping mediators into account.

Ullman’s (1996) models used psychological symptoms as the principal outcome measure. This research replaced psychological symptoms with perceived stress. Although both stress and negative psychological symptoms are related to coping, Lazarus and Folkman (1985) originally conceptualized coping strategies in terms of their relationship with people’s experience of stress. Therefore, this research utilized perceived stress as the outcome measure of this investigation.
Figure 1: Model of Undermining Behaviour, Coping, and Perceived Stress
Hypotheses

Hypothesis 1
Undermining behaviour will be directly associated with perceived stress in crime victims.

Hypothesis 2
Undermining behaviour will be directly associated with avoidant coping in crime victims.

Hypothesis 3
Undermining behaviour will be inversely associated with approach coping in crime victims.

Hypothesis 4
Avoidant coping will be directly associated with perceived stress in crime victims.

Hypothesis 5
Approach coping will be inversely associated with perceived stress in crime victims.
Method

Participants

This research drew participants from the Victim Companions Program. The Victim Companions Program is based in Winnipeg and is currently servicing victims throughout Manitoba. The main goal of this program is to support victims as they recover and as they go through the justice system. Many different types of crime victims are assisted by this program. Some of the victims may not be direct victims, but instead family or friends of a victim. An example of this is a family member or friend of a murder victim. This study attempted to recruit all of the victims currently serviced or otherwise associated with the program, including victims who did not directly experience the crime. The demographics collected about the crime are particularly important because these participants have experienced many different types of crime at different points in their lives.

Procedures

The staff of the Victim Companions Program asked potential participants if they could give their phone number to a researcher who would ask them if they would like to participate in a study. The Victim Companions Program staff were given basic information about the purpose of the study and were asked to tell potential participants to direct questions to the researcher. The researcher called the victims who agreed to be called, told them more about the study, and asked for permission to send them the research package (questionnaire, consent forms, instructions, and return envelope) in the mail. For these phone calls, the researcher created a script to ensure consistency (Appendix A). The participants were also told that they could call the researcher if they had any questions about the forms or questionnaire. The package sent to the participants contained instructions for participating (Appendix C) and two consent forms.
(Appendix D). These consent forms made it clear that declining to participate would not affect services, now or in the future, that they could withdraw at any time, and that they could decline to answer any specific questions. Staff members of the Victim Companions Program were also instructed to tell participants that the research was separate from the Victims Companions Program and was voluntary. The research package also contained a questionnaire (Appendices E-I) that mostly consisted of multiple-choice questions. The questionnaire was filled in by participants and then returned in the enclosed self-addressed stamped envelope. Later, if participants took more than three weeks to complete and return the questionnaire, the investigator phoned to remind them about the research and to find out if there had been any problems. In this second phone call, the investigator also used a script (Appendix B). These reminders seemed to significantly increase the number of research packages returned. To ensure confidentiality, the researcher separated the consent forms and questionnaires when packages were returned. The questionnaires did not contain any identifying information to link it to its corresponding consent form.

**Measures**

*Social-demographic Characteristics.*

The first section of the questionnaire contained social-demographic questions (Appendix E). This section included questions on the respondents’ gender, age, marital status, and education. These questions were adapted from Anderson’s (2001) social-demographics section. This demographic section was chosen because it covered all the demographic variables of interest and provided a proven, understandable format.

*Criminal Trauma History.*

The second section of the questionnaire asked about the participants’ recovery from the
crime and details about the participants' form of victimization (Appendix F). This section was developed by the investigator to understand the participants' criminal experience during and after the crime. It was necessary for the researcher to develop this section because there were no questionnaires in the literature that adequately addressed such experiences. As already discussed, research studying criminal trauma is rare and most of what is available focuses on a specific sample of crimes. Therefore, researchers have not needed to determine the different types of crimes experienced by the sample, as was required in this research. The questions in this section asked about the type of crime the person experienced, the details concerning the criminal’s experience with the justice system, and victims’ perceptions of their own impairment and recovery. The impairment and recovery measures each consisted of six questions covering physical, mental, emotional, educational/employment, social, and overall impairment and recovery. Each item was answered on a scale from 1 (Not Impaired / Not Recovered at All) to 10 (Totally Impaired/Recovered). The six subscales for impairment and recovery were combined into a mean score of impairment and recovery. Thus, the theoretical range of score was 1-10 with a higher mean indicating greater impairment or recovery respectively.

_Undermining Behaviour:_

The third section of the questionnaire contained questions on undermining behaviour (see Appendix G). This measure is a modified version of the measure used by Vinokur and Ryn (1993), which was originally developed by Abbey et al. (1985). The undermining measure was created to represent actions that would diminish the effect of socially supportive actions. This particular measure was chosen partially because it focuses on people’s perceptions. The transactional model of stress makes it clear that perceptions of the social environment are most important in determining people’s experience of stress (Lazarus & Folkman, 1985).
This undermining behaviour measure had Cronbach alpha coefficients ranging from .84 to .86 in the three times it was used by Vinokur and Van-Ryn’s (1993). Vinokur and Van-Ryn’s research was directed towards the undermining behaviour received by married individuals from their spouses. Thus, the questions needed to be modified to make them appropriate for the present investigation. This included putting the questions in the past tense and having them refer to victims’ general experience in the community, rather than to their spouse alone. There was also a concern that the questions were too general in terms of the source of the undermining behaviour. To address this problem, the questions were asked four times, each time referring to a different segment of the population that could potentially undermine the respondent. The four groups referred to were police/criminal justice personnel, medical personnel (only if they were required after the crime), family/friends, and the general community. An additional question was added for the present research concerning the person’s experience of blame from others in the community. It was added because blame is sometimes experienced from communities after criminal victimization (Janoff-Bullman, 1985). The researcher attempted to frame this question in a form similar to the other questions in this measure. It read “How much did the police/criminal justice personnel...blame you” and was repeated for the four different potentially undermining groups. Each item for this measure was answered on a scale from 1 (Not At All) to 5 (A Great Deal). All of the questions were combined into an overall mean score of undermining behaviour. Thus, the theoretical range of scores on the undermining behaviour measure was 1-5 with a higher mean indicating greater undermining behaviour.

Coping.

The fourth section of the questionnaire assessed the participants’ coping strategies (Appendix H). The present study used Lazarus and Folkman’s (1984) Ways of Coping Scale
(Revised) to measure participants’ coping strategies when confronted with crime. The different questions in this measure fit either with approach coping styles or avoidant coping styles. Within their own factor analysis, Lazarus and Folkman (1984) found many factors that fell under the approach coping style, including forming several possible solutions, gathering information, and making a plan. They also found many different avoidant coping strategies including distancing, avoiding, emphasizing the positive aspects of the situation, and self-blame.

Coyne and Gottlieb (1996), in their discussion of coping checklists, suggest that checklists be geared toward the specific situation participants are facing. In light of this suggestion, the instructions for this section of the questionnaire were modified to put it in the context of crime victimization. The instructions now read “Please read each item below and indicate, by circling the appropriate category, to what extent you coped in that way after the crime. Please answer these questions in terms of the crime you described earlier.” The instructions put the coping strategies in the context of the crime the participant described previously, as opposed to referencing his or her general coping strategies when stressed. Examining the victim’s response to this specific incident is consistent with the transactional theory of stress, which highlights the importance of studying how people cope in specific situations, as opposed to how they cope generally.

In the literature, the Ways of Coping Scale (Revised) has been divided into different subscales by different researchers. Therefore, the reliability for this measure has been reported only in terms of these different subscales. For example, Folkman and Lazarus (1988) split the Ways of Coping Scale (Revised) into eight different subscales. The Cronbach alphas of these different subscales ranged from .47 to .74. These alphas are fairly low, even for research purposes. However, in a more recent study, Rasmussen, Aber, and Bhana (2004) studied
violence in urban adolescents. In their sample, they found that they could not fit responses into the eight categories outlined by Folkman and Lazarus. Therefore, they split the scale into five subscales, with alphas ranging from .67 to .73. Obviously, the reliability of these subscales is more adequate. Rasmussen et al. were unable to conduct a factor-analysis because they had too few participants. Instead, they restructured the scales using conceptual analysis of the items to provide the most empirically reliable and conceptually coherent subscales. The five subscales they found were confrontive coping, seeking social support, positive reappraisal, planful problem-solving, and escape avoidance. They describe confrontive coping as “aggressive tactics to alter the situation” (p. 67); seeking social support as “efforts to gain informational and emotional support” (p. 67); planful problem-solving as “deliberate problem-focused efforts at resolving a situation” (p. 67); positive reappraisal as “reframing of a problem so as to create positive meaning for personal growth” (p. 67); and escape avoidance as “wishful thinking” (p. 68).

Similar to Rasmussen et al.’s (2004) situation, the present research did not have a large enough sample size to conduct an exploratory factor analysis of its coping checklist. Therefore, the checklist was split into different subscales using conceptual analysis of the checklist’s items. That is, each question was examined to decide what coping strategy (approach versus avoidant) it best describes. As a result, the items were split along the lines of previous research. For example, approach coping generally includes the items from Rasmussen et al.’s confrontive coping, seeking social support, and planful problems solving subscales. Similarly, the avoidance coping subscale generally includes the items from Rasmussen et al.’s positive reappraisal and escape avoidance subscales. For each potential response to stress, the current participants responded on a scale from 1 (Not Used) to 4 (Used A Great Deal). The mean was found for the
participants' answers on both approach and avoidant coping. Thus, the theoretical range for responses was from 1-4 with a higher mean indicating greater use of that coping strategy.

*Perceived Stress.*

Participants' level of stress was measured using the Perceived Stress Scale (PSS) (Cohen, Kamarck, & Mermelstein, 1983) (Appendix I). This is a 14-item scale that asks how often in the previous month the person felt or did different things that are related to stress. For example, question 3 asks: “In the last month, how often have you felt nervous and “stressed”?” Seven of the fourteen items on this scale were reverse scored, as specified by the measure’s designers. In their three studies, Cohen et al. calculated Cronbach alpha’s for the PSS ranging from .84 to .86. They also assessed the PSS’s validity. When they used Pearson product-moment correlations to compare the PSS with a number of life events scales, they found that the PSS was more associated with depressive symptomology (e.g., .76 vs .18) and physical symptomology (e.g., .70 vs. .40) in college students. Each question was answered on a scale from 1 (Never) to 5 (Very Often). The mean was found from the questions to represent the participants’ overall stress level. Thus, the theoretical range for responses was from 1-5 with a higher mean indicating greater stress.
Results

In the present study, 71 of the 80 potential participants consented to be called by the researcher and, 56 of these 71 potential participants completed and mailed back the questionnaire packet. This 79% return rate is very good for a mail out study. There are at least two plausible reasons for this very good return rate. The first is that the crime victim community within the Victim Companion Program is closely knit, with norms of helpfulness, especially in the case of crime victim research and other crime victim advocacy. The second plausible reason is the two phone reminders included in the protocol of this mail-out.

Despite the very good return rate, the number of packages returned was barely adequate, because at least 50 participants were required to complete the analysis (10-20 participants per variable path; Ullman, 1996). Four participants out of the 56 were excluded from the analysis; two because of incomplete consent forms and two because of unanswered items. Thus, 52 participants were included in the statistical analysis, which was just adequate to test the hypotheses.

The decision to not include the two participants due to missing data was based on a visual inspection. Unlike the rest of the sample, these participants had large sections of missing data. The missing data for the rest of the sample seemed to result from either minor mistakes or legitimate lack of experience with what the question was asking. For example, many participants did not answer the questions asking about the behaviour of medical personnel, because they did not have experience with medical personnel as part of their victimization. On the rest of the questionnaire, there were minimal amounts of missing data. This missing data was replaced with the sample mean values for that particular question.

Social Demographic Characteristics
From the addresses used to send out the packages, it seemed that the majority of victims who participated lived in Winnipeg. There were 39 female (75%) and 13 male (25%) respondents in the sample. The sample was well educated, although all levels of education were represented (28.8% finished senior high school and 42.9% finished either a post-secondary diploma or bachelors degree). The majority of the sample was married (61.5%), but there were many single (25%) and divorced/separated (13.5%) respondents.

The crimes represented in this study were also varied. The majority of participants had experienced the murder of a loved one (55.8%). The remainder had experienced theft (21.2%), molestation/sexual assault (11.5%), or stalking/rape (5.8%). The majority of participants reported having suspects in their case (61.5%). However, only a minority of participants reported their case being brought to court (38.5%).

The mean age of the sample was 47, with ages ranging from age 18 to 76. The mean number of years since the crime was quite large and varied widely ($M = 12.35, SD = 9.7$). This length of time since the crime is similar to Ullman (1996) whose respondents had experienced the crime an average of 9.7 years earlier. Both age and years since the crime were correlated with the psychological measures used in the present study. Age did not correlate with any of the variables, but years since crime correlated significantly with several variables (Table 1). The results showed significant inverse relationships between years since crime and approach coping, as well as years since crime and perceived stress. In contrast, there was a significant direct relationship between years since crime and recovery. These results indicate that the sample of the present study was affected by the large and varied number of years since the crime.

Descriptive Statistics

The statistical adequacy of each psychological measure was evaluated (e.g. internal
Table 1

Pearson Correlations Coefficients for Selected Demographic and Psychological Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Sample (N = 52)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Age</td>
<td>Years Since Crime</td>
<td></td>
</tr>
<tr>
<td>Undermining Behaviour</td>
<td>-0.22</td>
<td>-0.07</td>
<td></td>
</tr>
<tr>
<td>Approach Coping</td>
<td>0.13</td>
<td>-0.28*</td>
<td></td>
</tr>
<tr>
<td>Avoidant Coping</td>
<td>-0.06</td>
<td>0.03</td>
<td></td>
</tr>
<tr>
<td>Perceived Stress Scale</td>
<td>-0.07</td>
<td>-0.22*</td>
<td></td>
</tr>
<tr>
<td>Perceived Impairment</td>
<td>0.03</td>
<td>-0.24</td>
<td></td>
</tr>
<tr>
<td>Perceived Recovery</td>
<td>-0.04</td>
<td>0.31*</td>
<td></td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.10 level (2-tailed)

** Correlation is significant at the 0.05 level (2-tailed).

*** Correlation is significant at the 0.01 level (2-tailed)
consistency, skewness etc.). Table 2 summarizes each measure's mean, standard deviation, minimum, maximum, and internal reliability. Although some measures did not perform well in terms of normality, all of the measures had very good reliability.

The undermining behaviour measure overall had a very good Cronbach’s alpha (.94). However, the undermining measures related to medical personnel and the police/justice system had a great deal of missing data. The medical personnel part of this measure had 198 unanswered questions and the police/justice system part of this measure had 31. It seems that the majority of participants in this sample did not encounter medical personnel during their criminal experience and many did not encounter the police or justice system. The lack of contact with the police or justice system may be due to crimes that were not reported, but may also be because the participants were only related to the direct victims and, thus, were not involved with the police or criminal proceedings. In the end, the medical personnel and police/justice system sections of the undermining behaviour measure were not included in the analysis.

The undermining measure overall was also found to have a floor effect (skewness = 1.57). Through examining the raw data, it appears that many participants did not have negative experiences with their family/friends or community, and answered all of the questions with 1 (no undermining). This observation was confined by the large number of participants who answered 1 to the undermining behaviour questions (36.2%), as well as the low mean score and small standard deviation (M = 1.61, SD = .79). To correct this problem, many different techniques for correcting skewed distributions were tried, without appreciable improvement.

The approach and avoidance coping measures were evaluated next. Both were taken from the Ways of Coping (Revised) scale (Folkman and Lazarus, 1988). Previous research had split this measure up into many different types of coping styles and reported Cronbach alpha
<table>
<thead>
<tr>
<th>Scale/Subscale</th>
<th>M</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
<th>α^1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undermining Behaviour</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family/Friends</td>
<td>1.67</td>
<td>0.96</td>
<td>1.00</td>
<td>5.00</td>
<td>0.94</td>
</tr>
<tr>
<td>Community</td>
<td>1.54</td>
<td>0.83</td>
<td>1.00</td>
<td>4.67</td>
<td>0.93</td>
</tr>
<tr>
<td>Family/Friend and Community Combined</td>
<td>1.61</td>
<td>0.79</td>
<td>1.46</td>
<td>1.78</td>
<td>0.94</td>
</tr>
<tr>
<td>Ways of Coping Scale</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approach Coping</td>
<td>2.24</td>
<td>0.6</td>
<td>1.29</td>
<td>2.98</td>
<td>0.85</td>
</tr>
<tr>
<td>Avoidant Coping</td>
<td>2.25</td>
<td>0.51</td>
<td>1.61</td>
<td>3.19</td>
<td>0.83</td>
</tr>
<tr>
<td>Perceived Stress Scale</td>
<td>2.95</td>
<td>0.58</td>
<td>2.42</td>
<td>3.96</td>
<td>0.78</td>
</tr>
<tr>
<td>Impaired After the Crime</td>
<td>5.95</td>
<td>2.06</td>
<td>2.22</td>
<td>8.33</td>
<td>0.86</td>
</tr>
<tr>
<td>Recovered After the Crime</td>
<td>7.80</td>
<td>1.81</td>
<td>7.16</td>
<td>8.90</td>
<td>0.88</td>
</tr>
</tbody>
</table>

^1Cronbach alpha based on standardized items
reliabilities ranging from .47 to .74. In the present research, the measures were split into two scales based on the visual inspection of each item. This analysis of the questions was performed before the research was conducted. The internal reliabilities of these two scales were better than even the best reliabilities of coping subscales in previous research. The Cronbach alpha for approach coping was .84 and for avoidant coping was .81. This increase in reliability was expected because the measure was divided into fewer subscales than in previous research.

Participants’ level of stress was measured using the Perceived Stress Scale (PSS) (Cohen, Kamarck, & Mermelstein, 1983). In their three studies, Cohen et al. calculated Cronbach alpha’s for the PSS ranging from .84 to .86. The Cronbach alpha for the PSS in this study was .78. This was the only measure that demonstrated a lower reliability in the present study than in previous research. The participants appeared to experience moderate stress on average (M = 2.95), with some variability (SD = .58).

Regarding impairment and recovery, the participants first rated their degree of impairment and then their subsequent degree of recovery. Many of the participants rated themselves as having no physical impairment and then left recovery blank because it didn’t make sense to indicate recovery when there was no impairment. This pattern did not extend significantly to the questions about impairment and recovery in other areas (cognitive, emotional, education/employment, social, overall) because most participants experienced some impairment in those other areas. A post-hoc decision was made to eliminate the physical recovery impairment and variables from the analysis. Even so, impairment and recovery overall had very good internal reliability (Cronbach alpha for impairment = .86, Cronbach alpha for recovery = .88). The mean for perceived impairment and perceived recovery were close and near the middle of the scale. This indicates that participants experienced a fair amount of impairment after the
crime, but also a fair amount of recovery. This is not surprising given the long time since the crime for the majority of the participants.

Hypothesis Testing

To test the model in Figure 1, a path analysis was completed based on crime victims' self-reported undermining behaviour, approach coping, avoidant coping, and perceived stress. The entire model was first assessed using a goodness-of-fit test. A model’s goodness-of-fit is determined by the ratio between $\chi^2$ and the degrees of freedom. The closer the ratio is to 0, the better the fit between the data and the model. If the ratio is less than 2.0, the model is considered to have a good fit (Ullman, 1996). For the present model, $\chi^2(1, N=52) = 12.790$, $p < .001$. Thus, the ratio between $\chi^2$ and df is 12.790 ($\chi^2/1=12.790$), which is well over the criterion. The significant p-value indicates that this degree of discrepancy between the data and the model would be very unlikely if the model were accurate.

The specific hypotheses outlined earlier could not be tested because the overall model did not fit the data. Despite the lack of fit shown in the analysis, the model’s path-estimates were examined to see what could be learned from the different associations (Figure 2). Each path-estimate is similar to a regression coefficient, in that it describes the strength of the relationship. As these path-estimates are similar to regression coefficients, they can be larger than one, although this does not usually occur. The significance of each path-estimate was determined using the "critical ratio," which is the ratio between the path-estimate and the standard error for that particular relationship. Thus, some smaller path-estimates may be significant even when larger ones are not because of their smaller standard error. Before the data was collected, the investigator decided to use a significance testing level of .10 because this study was exploratory
in nature. This less strict level of significance should be kept in mind when examining Figure 2 and the rest of the analysis.

It appears that most of the relationships hypothesized are not significant even at the .10 level. When looking at the model (Figure 2), the two significant paths are from undermining behaviour to both types of coping. This significance is in the predicted direction for the path from undermining behaviour to avoidant coping. However, the path from undermining behaviour to approach coping was hypothesized to be negative. Also, the error variances for avoidant coping, approach coping, and perceived stress are significant at the .001 level. This large amount of error is not surprising, given the lack of model fit and lack of significant individual relationships. At this point, a re-specification of the model was attempted to find models that better fit the data.

*Post-hoc Analysis*

Re-specification of the model was based on previous findings. Ullman's (1996) model for rape victims was very similar, but not identical, to the model used in the above analysis. The models tested next recreated the models used in Ullman's study as closely as possible to discover whether those findings could be replicated. The models used by Ullman differed from the previous model in two ways. First, Ullman created a separate model for each of the two coping strategies. Therefore, the present study re-ran the original model with the two coping strategies separated. The first step in assessing a path-analysis model is to test that models goodness-of-fit. However, unlike the model hypothesized previously, it was not possible to analyze these separate models using a Chi-square test for goodness-of-fit because there are no degrees of freedom. Instead, Ullman (1996) only reports the path estimates. The association between undermining behaviour and perceived stress was tested first. This path was tested alone first, because for
Avoidant Coping

Undermining Behaviour

Approach Coping

Perceived Stress

E1

0.19***

E2

0.32***

0.11

-0.10

-0.08

0.29***

0.30***

0.32***

Figure 2: Model Path-estimates of Undermining Behaviour, Coping, and Perceived Stress.

E1, E2, and E3 represent the error estimate for their respective variables

* Path-estimate is significant at the .10 level.

** Path-estimate is significant at the .05 level.

*** Path-estimate is significant at the .01 level.
either approach or avoidant coping to be considered mediating variables, the direct relationship needs to be significant before the mediator variables are included. The direct relationship without either mediator included was not significant (Figure 3). Therefore, this line of analysis was abandoned.

The second step in replicating Ullman's (1996) findings was to change the outcome variable in the analysis. Ullman's analysis used two outcome variables, namely psychological outcomes and a one-item measure of recovery. The present study did not include a measure of psychological outcome, but it did include a five-item measure of perceived recovery. The model was tested again with the measure of perceived recovery replacing the measure of perceived stress. As with the previous model, this model's goodness-of-fit could not be analyzed because it did not contain any degrees of freedom. Instead, it was analyzed in terms of its path-estimates.

The association between the measure of undermining behaviour and the measure of perceived recovery was tested first to ensure that there was a relationship for the coping measures to mediate. Unlike the perceived stress, the association between undermining behaviour and perceived recovery was significant (Figure 4). However, the model also showed a high degree of error for perceived recovery.

The next step in the analysis included approach coping as a potential mediator. This analysis found that the association between undermining behaviour and perceived recovery remained significant even with approach coping included as a mediator (Figure 5). Thus, approach coping cannot be considered a mediator of the relationship between undermining behaviour and perceived recovery. Finally, approach coping was taken out of the model and avoidant coping was included as the potential mediator. With avoidant coping included as a mediator, the relationship between undermining behaviour and perceived recovery was not
Figure 3: Model Path-estimates of Undermining Behaviour, and Perceived Stress.

E1 represents the error estimate for perceived stress.

* Path is significant at the .10 level.

** Path is significant at the .05 level.

*** Path is significant at the .01 level.
Figure 4: Model Path-estimates of Undermining Behaviour, and Perceived Recovery.

E1 represents the error estimate for Perceived Recovery

* Path is significant at the .10 level.

** Path is significant at the .05 level.

*** Path is significant at the .01 level.
Figure 5: Model Path-estimates of Undermining Behaviour, Approach Coping, and Perceived Recovery.

E1 and E2 represent the error estimate for their respective variables.

* Path is significant at the .10 level.

** Path is significant at the .05 level.

*** Path is significant at the .01 level.
significant (Figure 6). The mediating effect of avoidant coping is also supported by the significant direct association between undermining behaviour and avoidant coping, and the significant inverse association between avoidant coping and perceived recovery. The models with perceived recovery as the outcome variable partially replicate the findings of Ullman (1996). Ullman found that neither approach coping nor avoidant coping mediated the relationship between undermining behaviour and perceived recovery. Thus, this study confirmed that approach coping does not mediate this relationship but also contradicted Ullman’s finding that avoidant coping does not mediate the relationship between undermining behaviour and perceived recovery.
Figure 6: Model Path-estimates of Undermining Behaviour, Avoidant Coping, and Perceived Recovery.

E1 and E2 represent the error estimate for their respective variables

* Path-estimate is significant at the .10 level.

** Path-estimate is significant at the .05 level.

*** Path-estimate is significant at the .01 level.
Discussion

The main thesis of this study was that undermining behaviour would influence the coping of victims, which would influence how much stress victims would report at present. This thesis was based on previous findings that undermining behaviour was a very good predictor of stress and other outcome variables, even better than social support (e.g., Ullman, 2001). The model for the current research was changed from those supported in previous research (Ullman, 1996). 

Previous research found that avoidant coping mediated the relationship between undermining behaviour and psychological outcomes. However, the present study differed from previous research in its sample and methodologies. The previous research utilized a more uniform sample of rape victims, they used direct victims (the present sample contained many participants who were only related to the victims of crime, 55.8% were friends/family of murder victims), they analyzed forms of coping in separate models, and they predicted psychological symptoms and perceived recovery instead of perceived stress. These differences may have been enough to change the results entirely.

The model tested in the present study did not fit the data well enough to be considered a good fit by the Chi-square test of fitness. Examination of the models path-estimates made this lack-of-fit clear. Most of the individual relationships hypothesized in the model were not supported. There were a few elements in the present research that restricted its ability to find significant results. The majority of the present investigations participants were not direct victims. In the sample, 55.8% of participants were victims of murder and, thus, were only the friends or family of the direct victims. Although indirect victims can sometimes experience a great deal of undermining behaviour (accusations, blaming etc.), they most likely do not experience as much undermining behaviour as direct victims. Therefore, the large number of indirect victims likely
contributed to the large number of participants who reported little to no undermining behaviour. The floor-effect on the undermining measure limited the ability of the present research to find significant results.

Of all the unsupported relationships, perhaps the most surprising was the lack of relationship between undermining behaviour and perceived stress, especially considering the strong effect of undermining behaviour found in earlier studies. Perceived stress was chosen for this study because of its close conceptual relationship to coping. However, the results of the present study suggest that perceived stress does not adequately capture the influence of undermining behaviour in victims of crime. Previous research used psychological symptoms as an outcome measure, which might better capture the long-term effects of undermining behaviour after the crime. Undermining behavior might cause victims experience psychological symptoms like depression or anxiety because they feel attacked by their social network, which should be providing them with support. Although it is likely that undermining behaviour would cause crime victims a certain amount of stress after the interaction, this stress reaction might be short lived. Instead, the feeling of betrayal or lack of social support might influence victims’ long-term psychological outcomes. These long-term psychological outcomes likely interfere with the crime victims daily functioning and, in this way, cause crime victims stress. For example, if people become severely depressed or anxious because of a criminal trauma their ability to go to work, pay bills, or generally function could be limited. These restrictions could, in turn, cause crime victims a great deal of stress.

Previous research used victims’ perceived recovery after the crime as an outcome measure in models investigating the mediating effects of coping. To further explore the current data, this measure of recovery was inserted into models testing the mediating effects of coping.
This made an immediate difference to the relationships in the models. The first difference was a strong inverse relationship between undermining behaviour and the outcome measure (now perceived recovery). These models also found that, unlike previous research, avoidant coping mediated the relationship between undermining behaviour and perceived recovery. These results need to be viewed with caution, however, because the analyses were conducted post-hoc and, thus, have a greater probability of being due to chance. This finding also needs to be interpreted with caution because the recovery measure contained an extreme amount of error, so much so that the error estimate was greater than one. Additionally, the path-estimate between avoidant coping and perceived recovery was not only significant, but greater than one. Although it is theoretically possible for path-estimates and error estimates to be greater than one, this is rare and difficult to interpret. The high error rate for recovery makes it difficult to be certain what this variable is testing and it calls the measure’s validity into question. Such high error was unexpected because, although the measure for perceived recovery was developed by the researcher, it appeared to be a methodological improvement over Ullman’s measure of recovery because it contained five-items instead of one and possessed good internal consistency (cronbach alpha = .88). The present study’s high error rate was unable to be checked against Ullman’s study because Ullman did not report path analysis error terms. Consequently, the present study’s finding must be viewed with caution.

Limitations

The present study had many limitations. As the design was cross-sectional, it was unable to draw causal conclusions or to comment on the longitudinal course of recovery. Another limitation was that many of the victims in the study were indirect victims. Using only direct victims could have greatly increased the amount of undermining behaviour experienced in the
sample. This potential increase in undermining behaviour would have increased the study’s ability to find significant results. However, the major limitation of this study was the small sample size. The small sample size limited the power of the study and impeded its ability to test more complete/complex models.

There were also many limitations to the generalizability of the findings. The first limitation is that not all types of crime were sampled. The sample was also drawn from an organization that deals specifically with victims that are requesting services of some kind. These help-seeking victims may have been systematically different in some ways from other crime victims in the community, again impeding the generalizability of the data collected. The sample was also limiting because it was drawn from one organization in one province, thereby impeding the generalizability of findings. The victims who participated in the study were also volunteers rather than a completely random sampling from the program’s participants. This systematic selection also limits the generalizability of the findings.

Future Research

Future research could continue to investigate the effect of undermining behaviour on victims of crime. Given the findings of the present research, a future investigation could test whether psychological symptoms mediates the relationship between undermining behaviour and perceived stress. In this future investigation, it would be prudent to improve the measure of undermining behaviour. This measure had an extreme floor-effect, which greatly reduced the ability of this measure to vary with other constructs. This floor-effect could potentially be eliminated by using a scale from 1-10 or even 1-100, instead of 1-5. Changing the scale would make the measure more sensitive to the small variations at the lower end of the scale.

The influence of undermining behaviour on crime victims is extremely important to
understanding how to be sensitive to victims after the crime. It is also important to understand undermining behaviour in order to draft policies and design therapies that would best counteract the influence of undermining behaviour on crime victims' stress and psychological outcomes.
References


York. (pp. 709-819). As cited in http://online.sfsu.edu/~efc/classes/biol710/path/SEMwebpage.pdf#search='path%20analysis'


Appendix A

SCRIPT A

Instructions for Participant Recruitment

Hello Participants Name my name is Syras Derksen and I am calling about a study that is currently being conducted at the University of Manitoba. The researcher is interested in studying how people cope with criminal victimization and the reactions of others after the crime. This research will help researchers, people who work with victims, and victims themselves, better understand criminal trauma and the effectiveness of different coping strategies. The study will take approximately 15-25 minutes to complete, and involves mostly multiple-choice questions. It will ask about the crime you have experienced and how that victimization has influenced your life. Although, this research is not being conducted by the Victims Voice Program, this program endorses this study and believes that its results will be helpful in understanding victimization.

Your participation in this study is voluntary. You will not be penalized in any way for refusing to participate. You can also refuse to answer any of the questions in the study and you can withdraw at any time. Your services from Victims Voice will not be jeopardized or reduced if you do not participate.

We can send you the package that contains the questionnaire, the consent form, and instructions for participation. You would have two to three weeks to complete the questionnaire. Would you be willing to participate in this study?

If Yes

We will send you the package containing all the necessary information. Thank you for
your participation.

If No

Thank you for your time; and I would like to assure you again that your services at Victims Voice will not be affected by your decision not to participate.
Appendix B

**SCRIPT B**

**Prompt Script for Continued Participation** *(Will be used 3 weeks after package sent, and after another two weeks if participant does not respond)*

Hello *Participants Name* my name is Syras Derksen and I am calling about a study that is being conducted at the University of Manitoba and that you agreed to participate in. *(Question 1)* We sent you a package containing a questionnaire and some other forms; did you receive this package?

If Yes to Question 1

*(Question 2)* Have you been able to complete the questionnaire and return it in the envelope provided?

If No to Question 1

*(Question 3)* Are you still willing to participate in the research?

If Yes to Question 2

Thank you for your participation. We appreciate it very much.

If No to Question 2

*(Question 4)* Do you think that you will be able to complete the questionnaire in the next two weeks?

If Yes to Question 3
Great, we will send you another copy of the package. Thank you again for your participation.

If No to Question 3

Thank you for your time; and I would like to assure you again that your services at Victims Voice will not be affected by your decision not to participate.

If Yes to Question 4

Great, Thank you for your participation.

If No to Question 4

How long do you think it will take you to complete the questionnaire? (assess whether their timeline for completing the questionnaire fits with the timeline of the project)
Appendix C

Instructions for Completing Questionnaire

Step 1: Consent Forms

Enclosed are two identical consent forms. Please read over the consent form and decide whether or not you are willing to continue participating in the research. If you decide to continue, please sign and date one of the forms. You must be 18 years of age or older to participate in this study. If you decide not to participate, feel free to discard the questionnaire and other materials.

Step 2: Questionnaire

Fill in all of the questionnaire.

Step 3: Returning the Package

Please ensure that you return a copy of your questionnaire and one completed consent form; the other consent form is for your records. To return the questionnaire and signed consent form, please use the enclosed self-addressed stamped envelope provided in the package. Thank you!

Thank you for your time and consideration.
Appendix D

Consent Form

Research Project Title: Crime Victims’ Coping Styles When Confronted with Undermining Behaviour

Researchers:

Syras Derksen, Psychology Graduate Student:

Dr. Bruce Tefft, Research Supervisor:

This consent form, a copy of which will be left with you for your records and reference, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

The purpose of this research is to learn about how crime victims cope when they experience negative social interactions after the crime. Coping styles are an important area of research because coping is linked to stress and other health concerns. This questionnaire will ask about the crime you have experienced and how that victimization has influenced your life. Participation in this research involves filling in the questionnaire included with this consent form. One copy of the completed consent form will be returned to the researcher along with the completed questionnaire. If you find participating in this study distressing, please feel free to either contact the researchers or Victims Voice/ Victims Companions. When the researchers open the completed package, they will separate the questionnaire from the consent form, which has your identifying information. Separating the consent form and the questionnaire will make it impossible to link the identifying information on the consent form to your answers on the questionnaire. This research is voluntary, declining to participate will not affect your services from Victims Voice. You may also decline to answer any question or withdraw from participation at any time. Participation should take approximately 15-25 minutes.

Once the research has been completed, a summary of the findings will be available to all participants. If you would like to receive a copy of the summary, please indicate the best way to send you this information on the consent form you send back with the completed questionnaire.
Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time, and / or refrain from answering any questions you prefer to omit, without prejudice or consequence. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation.

This research has been approved by the Psychology / Sociology Research Ethics Board. If you have any concerns or complaints about this project you may contact any of the above-named persons or the Human Ethics Secretariat. A copy of this consent form has been given to you to keep for your records and reference.

_________________________________________  ____________________________
Participant’s Signature                        Date

_________________________________________
Participants First and Last Name (Please Print)
If you would like a copy of the results, please indicate the best way to send you this research summary. Victims Voice will also be given a copy of the summary that you can access once it is available. The summary should be available in November 2005.

Email: __________________________________________

Fax: ____________________________________________

Mailing Address:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
Appendix E

Social-demographics

INSTRUCTIONS:

Please provide some information about your personal characteristics.

1) What is your gender?  
   a. male  
   b. female  
   (circle one)

2) Age: __________

3) Marital Status:  
   1. Single / Never married  
   (circle one)  
   2. Common-law/Cohabiting with partner  
   3. Married  
   4. Divorced/Separated

4) Highest education level completed: (circle highest)  
   Elementary school: grade 1- 6  
   Junior high school: grade 7- 9  
   Senior high school: grade 10-12  
   Post-secondary diploma/certificate  
   Undergraduate university education: Bachelor’s degree  
   Graduate university education: Master’s degree  
   Graduate university education: Doctoral degree
Appendix F

Criminal Trauma History

INSTRUCTIONS:

Please provide some information about your criminal trauma history. Please answer all questions in terms of the crime that brought you to the Victims Companions Program. Please guard your confidentiality by not providing any information that might reveal your identity.

1) You were the victim of what type of crime? (please describe the criminal victimization that brought you to the Victim Companions Program)

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

2) In what year was the crime? __________________________

3) Were there ever any suspects in the case? (circle one)
   a. yes  
   b. no  
   c. I don’t know

4) Did the police ever suspect that you committed the crime? (circle one)
   a. yes  
   b. no  
   c. I don’t know

5) Did anyone else ever suspect that you committed the crime? (circle one)
   a. yes  
   b. no  
   c. I don’t know

6) Were one or more persons ever brought to court? (circle one)
   a. yes  
   b. no  
   c. I don’t know

7) If “yes” to question 5, how many were caught? (please specify:__________)

9) If “yes” to question 5, how many were brought to court? (please specify:__________)

10) If “yes” to question 5, how many were convicted of the crime? (please specify:__________)
11) What do you believe would be the most appropriate sentence for whoever committed the crime? (please specify: ______________________________________________________________________)

**Impairment from the Crime**

12) How much were you physically impaired or disrupted from the crime you described earlier? *(circle one)*

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not Impaired At All</td>
<td>Totally Impaired</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13) How much were you cognitively (for example, concentration) impaired or disrupted from the crime you described earlier? *(circle one)*

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not Impaired At All</td>
<td>Totally Impaired</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14) How much were you emotionally (for example, sadness or anxiety) impaired or disrupted from the crime you described earlier? *(circle one)*

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not Impaired At All</td>
<td>Totally Impaired</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

15) How much were you impaired or disrupted in terms of your education/employment since the crime you described earlier? *(circle one)*

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not Impaired At All</td>
<td>Totally Impaired</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

16) How much were you socially (for example, stopping social activities) impaired or disrupted
from the crime you described earlier?

(circle one)

1 2 3 4 5 6 7 8 9 10

Not Impaired At All  Totally Impaired

17) How much were you impaired or disrupted overall from the crime you described earlier?

(circle one)

1 2 3 4 5 6 7 8 9 10

Not Impaired At All  Totally Impaired

________________________________________________________

Recovery from the Crime

18) How far have you come in your physical recovery from the crime you described earlier?

(circle one)

1 2 3 4 5 6 7 8 9 10

Not Recovered At All  Totally Recovered

19) How far have you come in your cognitive (for example, concentration) recovery from the crime you described earlier? (circle one)

1 2 3 4 5 6 7 8 9 10

Not Recovered At All  Totally Recovered

20) How far have you come in your emotional (for example, sadness or anxiety) recovery from the crime you described earlier? (circle one)

1 2 3 4 5 6 7 8 9 10

Not Recovered At All  Totally Recovered
21) How far have you come in terms of resuming education/employment since the crime you described earlier? (circle one)

1  2  3  4  5  6  7  8  9  10
Not Recovered At All                       Totally Recovered

22) How far have you come in your social (for example, resuming social activities) recovery from the crime you described earlier? (circle one)

1  2  3  4  5  6  7  8  9  10
Not Recovered At All                       Totally Recovered

23) How far have you come in your overall recovery from the crime you described earlier?

(circle one)

1  2  3  4  5  6  7  8  9  10
Not Recovered At All                       Totally Recovered
Appendix G

Undermining Behaviour

**INSTRUCTIONS:**

Please provide some information about peoples’ reactions to you after the crime. Please answer these questions in terms of the crime you described earlier.

How much did police/criminal justice personnel:

<table>
<thead>
<tr>
<th></th>
<th>Not At All</th>
<th>A Great Deal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Act in an unpleasant or angry manner toward you</td>
<td>1 2 3 4 5 (circle one)</td>
<td></td>
</tr>
<tr>
<td>Make your life difficult</td>
<td>1 2 3 4 5 (circle one)</td>
<td></td>
</tr>
<tr>
<td>Appear to dislike you</td>
<td>1 2 3 4 5 (circle one)</td>
<td></td>
</tr>
<tr>
<td>Make you feel unwanted</td>
<td>1 2 3 4 5 (circle one)</td>
<td></td>
</tr>
<tr>
<td>Criticize you</td>
<td>1 2 3 4 5 (circle one)</td>
<td></td>
</tr>
<tr>
<td>Blame you</td>
<td>1 2 3 4 5 (circle one)</td>
<td></td>
</tr>
</tbody>
</table>

How much did medical personnel: (if treatment was required)

<table>
<thead>
<tr>
<th></th>
<th>Not At All</th>
<th>A Great Deal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Act in an unpleasant or angry manner toward you</td>
<td>1 2 3 4 5 (circle one)</td>
<td></td>
</tr>
<tr>
<td>Make your life difficult</td>
<td>1 2 3 4 5 (circle one)</td>
<td></td>
</tr>
<tr>
<td>Appear to dislike you</td>
<td>1 2 3 4 5 (circle one)</td>
<td></td>
</tr>
<tr>
<td>Make you feel unwanted</td>
<td>1 2 3 4 5 (circle one)</td>
<td></td>
</tr>
<tr>
<td>Criticize you</td>
<td>1 2 3 4 5 (circle one)</td>
<td></td>
</tr>
<tr>
<td>Blame you</td>
<td>1 2 3 4 5 (circle one)</td>
<td></td>
</tr>
</tbody>
</table>
### How much did family/friends:

<table>
<thead>
<tr>
<th></th>
<th>Not At All</th>
<th>A Great Deal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Act in an unpleasant or angry manner toward you</td>
<td>1  2  3  4  5 (circle one)</td>
<td></td>
</tr>
<tr>
<td>Make your life difficult</td>
<td>1  2  3  4  5 (circle one)</td>
<td></td>
</tr>
<tr>
<td>Appear to dislike you</td>
<td>1  2  3  4  5 (circle one)</td>
<td></td>
</tr>
<tr>
<td>Make you feel unwanted</td>
<td>1  2  3  4  5 (circle one)</td>
<td></td>
</tr>
<tr>
<td>Criticize you</td>
<td>1  2  3  4  5 (circle one)</td>
<td></td>
</tr>
<tr>
<td>Blame you</td>
<td>1  2  3  4  5 (circle one)</td>
<td></td>
</tr>
</tbody>
</table>

### How much did other community members:

<table>
<thead>
<tr>
<th></th>
<th>Not At All</th>
<th>A Great Deal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Act in an unpleasant or angry manner toward you</td>
<td>1  2  3  4  5 (circle one)</td>
<td></td>
</tr>
<tr>
<td>Make your life difficult</td>
<td>1  2  3  4  5 (circle one)</td>
<td></td>
</tr>
<tr>
<td>Appear to dislike you</td>
<td>1  2  3  4  5 (circle one)</td>
<td></td>
</tr>
<tr>
<td>Make you feel unwanted</td>
<td>1  2  3  4  5 (circle one)</td>
<td></td>
</tr>
<tr>
<td>Criticize you</td>
<td>1  2  3  4  5 (circle one)</td>
<td></td>
</tr>
<tr>
<td>Blame you</td>
<td>1  2  3  4  5 (circle one)</td>
<td></td>
</tr>
</tbody>
</table>
## Appendix H

### Ways of Coping (Revised)

**INSTRUCTIONS:**

Please read each item below and indicate, by circling the appropriate category, to what extent you used each of the following coping strategies after the crime. Please answer these questions in terms of the crime you described earlier.

<table>
<thead>
<tr>
<th></th>
<th>Not Used</th>
<th>Used A Great Deal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Just concentrated on what I had to do next – the next step.</td>
<td>1 2 3 4 (circle one)</td>
<td></td>
</tr>
<tr>
<td>2. I tried to analyze the problem in order to understand it better.</td>
<td>1 2 3 4 (circle one)</td>
<td></td>
</tr>
<tr>
<td>3. Turned to work or substitute activity to take my mind off things.</td>
<td>1 2 3 4 (circle one)</td>
<td></td>
</tr>
<tr>
<td>4. I felt that time would make a difference – the only thing to do was wait.</td>
<td>1 2 3 4 (circle one)</td>
<td></td>
</tr>
<tr>
<td>5. Bargained or compromised to get something positive from the situation.</td>
<td>1 2 3 4 (circle one)</td>
<td></td>
</tr>
<tr>
<td>6. I did something which I didn’t think would work, but at least I was doing something.</td>
<td>1 2 3 4 (circle one)</td>
<td></td>
</tr>
<tr>
<td>7. Tried to get the person responsible to change his or her mind.</td>
<td>1 2 3 4 (circle one)</td>
<td></td>
</tr>
<tr>
<td>8. Talked to someone to find out more about the situation.</td>
<td>1 2 3 4 (circle one)</td>
<td></td>
</tr>
<tr>
<td>9. Criticized or lectured myself.</td>
<td>1 2 3 4 (circle one)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not Used</td>
<td>Used A Great Deal</td>
</tr>
<tr>
<td>---</td>
<td>----------</td>
<td>------------------</td>
</tr>
<tr>
<td>10.</td>
<td>Tried not to burn my bridges, but leave things open somewhat.</td>
<td>1 2 3 4 (circle one)</td>
</tr>
<tr>
<td>11.</td>
<td>Hoped a miracle would happen.</td>
<td>1 2 3 4 (circle one)</td>
</tr>
<tr>
<td>12.</td>
<td>Went along with fate; sometimes I just have bad luck.</td>
<td>1 2 3 4 (circle one)</td>
</tr>
<tr>
<td>13.</td>
<td>Went on as if nothing had happened.</td>
<td>1 2 3 4 (circle one)</td>
</tr>
<tr>
<td>14.</td>
<td>I tried to keep my feelings to myself.</td>
<td>1 2 3 4 (circle one)</td>
</tr>
<tr>
<td>15.</td>
<td>Looked for the silver lining, so to speak; tried to look on the bright side of things.</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>16.</td>
<td>Slept more than usual.</td>
<td>1 2 3 4 (circle one)</td>
</tr>
<tr>
<td>17.</td>
<td>I expressed anger to person(s) who caused the problem.</td>
<td>1 2 3 4 (circle one)</td>
</tr>
<tr>
<td>18.</td>
<td>Accepted sympathy and understanding from someone.</td>
<td>1 2 3 4 (circle one)</td>
</tr>
<tr>
<td>19.</td>
<td>I told myself things that helped me feel better.</td>
<td>1 2 3 4 (circle one)</td>
</tr>
<tr>
<td>20.</td>
<td>I was inspired to do something creative.</td>
<td>1 2 3 4 (circle one)</td>
</tr>
<tr>
<td>21.</td>
<td>Tried to forget the whole thing.</td>
<td>1 2 3 4 (circle one)</td>
</tr>
<tr>
<td>22.</td>
<td>I got professional help.</td>
<td>1 2 3 4 (circle one)</td>
</tr>
<tr>
<td>23.</td>
<td>Changed or grew as a person.</td>
<td>1 2 3 4 (circle one)</td>
</tr>
<tr>
<td>24.</td>
<td>I waited to see what would happen before doing anything.</td>
<td>1 2 3 4 (circle one)</td>
</tr>
<tr>
<td>25.</td>
<td>I apologized or did something to make up.</td>
<td>1 2 3 4 (circle one)</td>
</tr>
<tr>
<td>26.</td>
<td>I made a plan of action and followed it.</td>
<td>1 2 3 4 (circle one)</td>
</tr>
<tr>
<td>27.</td>
<td>I accepted the next best thing to what I wanted.</td>
<td>1 2 3 4 (circle one)</td>
</tr>
<tr>
<td>28.</td>
<td>I let my feelings out somehow.</td>
<td>1 2 3 4 (circle one)</td>
</tr>
</tbody>
</table>
29. Realized I brought the problem on myself.  
Not Used 2 3 4 (circle one)  
Used A Great Deal

30. I came out of the experience better than when I went in.  
Not Used 2 3 4 (circle one)  
Used A Great Deal

31. Talked to someone who could do something concrete about the problem.  
Not Used 2 3 4 (circle one)  
Used A Great Deal

32. Got away from it for a while; tried to rest or take a vacation.  
Not Used 2 3 4 (circle one)  
Used A Great Deal

33. Tried to make myself feel better by eating, drinking, smoking, using drugs or medication, etc.  
Not Used 2 3 4 (circle one)  
Used A Great Deal

34. Took a big chance or did something very risky.  
Not Used 2 3 4 (circle one)  
Used A Great Deal

35. I tried not to act too hastily or follow my first hunch.  
Not Used 2 3 4 (circle one)  
Used A Great Deal

36. Found new faith.  
Not Used 2 3 4 (circle one)  
Used A Great Deal

37. Maintained my pride and kept a stiff upper lip.  
Not Used 2 3 4 (circle one)  
Used A Great Deal

38. Rediscovered what is important in life.  
Not Used 2 3 4 (circle one)  
Used A Great Deal

39. Changed something so things would turn out all right.  
Not Used 2 3 4 (circle one)  
Used A Great Deal

40. Avoided being with people in general.  
Not Used 2 3 4 (circle one)  
Used A Great Deal

41. Didn’t let it get to me; refused to think too much about it.  
Not Used 2 3 4 (circle one)  
Used A Great Deal

42. I asked a relative or friend I respected for advice.  
Not Used 2 3 4 (circle one)  
Used A Great Deal

43. Kept others from knowing how bad things were.  
Not Used 2 3 4 (circle one)  
Used A Great Deal

44. Made light of the situation: refused to get too serious.  
Not Used 2 3 4 (circle one)  
Used A Great Deal

45. Talked to someone about how I was feeling.  
Not Used 2 3 4 (circle one)  
Used A Great Deal

46. Stood my ground and fought for what I wanted.  
Not Used 2 3 4 (circle one)  
Used A Great Deal

47. Took it out on other people.  
Not Used 2 3 4 (circle one)  
Used A Great Deal
<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>48. Drew on my past experiences; I was in a similar situation before.</td>
<td>1 2 3 4 (circle one)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>49. I knew what had to be done, so I doubled my efforts to make things work.</td>
<td>1 2 3 4 (circle one)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50. Refused to believe that it had happened.</td>
<td>1 2 3 4 (circle one)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>51. I made a promise to myself that things would be different next time.</td>
<td>1 2 3 4 (circle one)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>52. Came up with a couple of different solutions to the problem.</td>
<td>1 2 3 4 (circle one)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>53. Accepted it, since nothing could be done.</td>
<td>1 2 3 4 (circle one)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>54. I tried to keep my feelings from interfering with other things too much.</td>
<td>1 2 3 4 (circle one)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>55. Wished that I could change what had happened or how I felt.</td>
<td>1 2 3 4 (circle one)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>56. I changed something about myself.</td>
<td>1 2 3 4 (circle one)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>57. I daydreamed or imagined a better time or place than the one I was in.</td>
<td>1 2 3 4 (circle one)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>58. Wished that the situation would go away or somehow be over with.</td>
<td>1 2 3 4 (circle one)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>59. Had fantasies or wishes about how things might turn out.</td>
<td>1 2 3 4 (circle one)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>60. I prayed.</td>
<td>1 2 3 4 (circle one)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>61. I prepared myself for the worst.</td>
<td>1 2 3 4 (circle one)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
62. I went over in my mind what I would say or do.

63. I thought about how a person I admire would handle this situation and used that as a model.

64. I tried to see things from the other person’s point of view.

65. I reminded myself how much worse things could be.

66. I jogged or exercised.

67. I tried something entirely different from any of the above. (please describe).
Appendix I

Perceived Stress Scale

INSTRUCTIONS:
The questions in this scale ask you about your feelings and thought during the last month. In each case, you will be asked to indicate how often you felt or thought a certain way. Although some of the questions are similar, there are differences between them and you should treat each one as a separate question. The best approach is to answer each question fairly quickly. That is, don’t try to count up the number of times you felt a particular way, but rather indicate the alternative that seems like a reasonable estimate.

1. In the last month, how often have you been upset because of something that happened unexpectedly? 1 2 3 4 5 (circle one)

2. In the last month, how often have you felt that you were unable to control the important things in your life? 1 2 3 4 5 (circle one)

3. In the last month, how often have you felt nervous and “stressed”? 1 2 3 4 5 (circle one)

4. In the last month, how often have you dealt successfully with irritating life hassles? 1 2 3 4 5 (circle one)

5. In the last month, how often have you felt that you were effectively coping with important changes that were occurring in your life? 1 2 3 4 5 (circle one)

5. In the last month, how often have you felt confident about your ability to handle your personal problems? 1 2 3 4 5 (circle one)
6. In the last month, how often have you felt that things were going your way?  
\[1 \ 2 \ 3 \ 4 \ 5 \ (circle \ one)\]

7. In the last month, how often have you found that you could not cope with all the things you had to do?  
\[1 \ 2 \ 3 \ 4 \ 5 \ (circle \ one)\]

8. In the last month, how often have you been able to control irritations in your life?  
\[1 \ 2 \ 3 \ 4 \ 5 \ (circle \ one)\]

9. In the last month, how often have you felt that you were on top of things?  
\[1 \ 2 \ 3 \ 4 \ 5 \ (circle \ one)\]

10. In the last month, how often have you been angered because of things that happened that were outside of your control?  
\[1 \ 2 \ 3 \ 4 \ 5 \ (circle \ one)\]

11. In the last month, how often have you found yourself thinking about things that you have to accomplish?  
\[1 \ 2 \ 3 \ 4 \ 5 \ (circle \ one)\]

12. In the last month, how often have you been able to control the way you spend your time?  
\[1 \ 2 \ 3 \ 4 \ 5 \ (circle \ one)\]

13. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?  
\[1 \ 2 \ 3 \ 4 \ 5 \ (circle \ one)\]