POSTTRAUMATIC STRESS AND PERITRAUMATIC DISSOCIATION IN WOMEN WHO HAVE EXPERIENCED DOMESTIC VIOLENCE

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Abstract

The aim of the present study was to examine the prevalence of PTSD symptoms in women who have experienced domestic violence. In addition, the relationship between PTSD and dissociation at the time of trauma (peritraumatic dissociation) was investigated. A community sample of 22 women who have experienced domestic violence completed a mailed self-report questionnaire. The following variables were assessed: frequency of physical and psychological abuse, general psychopathology, exposure to other traumatic experiences, peritraumatic dissociation and PTSD symptoms. As hypothesised, a significant proportion of women in the sample (32%) were classified as PTSD cases. The results of the study support previous research findings that have shown a positive relationship between current PTSD symptoms and chronicity of the abuse. A significant relationship was also found between peritraumatic dissociative experiences at the time of the abusive relationship and current PTSD symptoms and general psychopathology. Women classified as PTSD cases reported significantly higher rates of peritraumatic dissociative experiences than those classified as non-PTSD cases. The results of this investigation suggest that future research is needed to examine the association between peritraumatic dissociation and PTSD symptomatology in this population group.

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1.0 Domestic Violence

The term 'domestic violence' is defined in the current thesis as encompassing experiences of physical abuse, psychological abuse and/or sexual abuse within an intimate relationship. Physically abusive acts may consist of a range of behaviours including but not limited to being slapped; punched; kicked; thrown; burnt; cut; choked; bitten; stabbed; strangled and/or repeated beatings. At the extreme, partner abuse may result in homicide (Browne, 1993, Dutton, 1992a). Domestic violence may also include sexual abuse by a partner (Dutton & Goodman, 1994; Dutton, Hohnecker, Halle, Burghardt, 1994; Walker, 1984). Psychologically abusive acts within an abusive relationship may include humiliation, intimidation, harassment, damage to property, and threats of physical, sexual or psychological abuse to the victim, the victim's children, family or friends. Psychological abuse may also encompass economic abuse, isolation, using male privilege such as treating a female partner like a servant and acting like the master of the castle, and a variety of other behaviours used to maintain fear, intimidation, power and control (Dutton, 1992a; Dutton and Goodman, 1994; Herman, 1992; Klier, Jacobs & Quiram,1999).

It has been estimated that domestic violence occurs in one in seven New Zealand families (National Collective of Independent Women's Refuges, 1993). According to the more recent Women's Safety Survey, a nationwide survey conducted in 1996, 22% of non-Maori women and 44% of Maori women had experienced at least one incident of physical or sexual assault by their current partner (Morris,1997,1998). These figures highlight that violence within the context of intimate relationships remains a serious problem in New Zealand.

Research on the effects of domestic violence has consistently documented the harm such violence can cause both physically and psychologically (e.g. Dutton, 1992a; Dutton, 1992b; Herman, 1992; Walker, 2000). High levels of depression, anxiety, somatic disorders, alcohol and substance abuse, social withdrawal, cognitive distortions, suicide ideation and suicide attempts are

among the array of psychological problems commonly found among abused women (Astin, Ogland-Hand,Coleman & Foy,1995; Browne,1993; Gleason, 1993). More recently, posttraumatic stress disorder (PTSD) has been documented as a common response to the experience of partner abuse (e.g. Astin, Lawrence, & Foy, 1993; Cascardi, O'Leary, Lawrence & Schlee, 1995; Dutton & Goodman, 1994; Dutton,1992b; Herman,1992; Kemp, Green, Hovanitz & Rawlings, 1995).

1.1 Posttraumatic Stress Disorder (PTSD)

Dutton and Goodman (1994) note that while PTSD has long been used to encapsulate responses to a range of traumatic events, especially combat, it's application to victims of domestic violence is only relatively recent, and in some ways more complex. The essential feature of the diagnosis of PTSD as defined by the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV; American Psychiatric Association,1994) is an event that involves actual or threatened death or injury, or a threat to the physical integrity of oneself or others. A second central feature is that the person's response to the traumatic experience involves intense fear, helplessness or horror. The symptoms of PTSD are categorised into three clusters involving *re-experiencing* of the trauma such as through flashbacks, intrusive thoughts, memories, dreams or associations. *Avoidance* of trauma relevant stimuli and numbing of general responsiveness. Persistent *hyperarousal* such as jumpiness irritability, sleep disturbance and attention and concentration difficulties. Clinical features of PTSD, and the viability of its application to domestically abused women is discussed in Chapter Three.

1.2 Peritraumatic dissociation

Even devastating events do not lead to PTSD in all individuals, and research has suggested a variety of risk and predictive factors for the development of the disorder (see Briere,1997; van der Kolk, 1996; Wilson & Keane,1997). Peritraumatic dissociation, (dissociation at the time of the traumatic event) has been found to be a significant predictor, if not the most important predictor of the subsequent development of PTSD in a variety of trauma populations (e.g. Cardena & Spiegel, 1993; Holen,1993; Koopman, Classen & Spiegel, 1994; van

der Kolk & Fisler,1995). However, little research has systematically investigated this phenomena in domestically abused women. Essentially, dissociation is considered a defence mechanism involving the organisation of information (van der Kolk, van der Hart, & Marmar, 1996), and has been described by most as the separation of mental processes such as thoughts, emotions, cognition, memory, and identity; that are ordinarily integrated (Spiegel & Cardena, 1991). Peritraumatic dissociation may take the form of altered time sense where time may be experienced as either slowed down or accelerated, depersonalisation, out of body experiences, bewilderment, confusion, disorientation, altered pain perception, altered body image, or tunnel vision (Marmar, Weiss, & Metzler, 1997; van der Kolk, et al., 1996). The phenomena of peritraumatic dissociation is discussed in Chapter Four.

1.3 Objectives of the present study

Varying rates of current PTSD diagnosis ranging form 31%-89% have been documented among women who have been physically abused by their partners (e.g. Astin et al., 1993; Cascardi, et al., 1995; Gleason, 1993; Houskamp & Foy, 1991; Kemp, Rawlings & Green, 1991; Kemp, et al., 1995). The first objective of the present study is to examine the presence and extent of posttraumatic stress symptomatology in a community sample of women who have experienced domestic violence. Traumatic stress symptoms are examined primarily within the framework of PTSD as defined by DSM-IV (APA, 1994). The findings will contribute to empirical evidence of stress related outcomes in women who have been abused by their partners and provide support for overseas research that has documented high rates of posttraumatic stress disorder in this population.

The second objective of the present study is to document the extent of peritraumatic dissociation and examine the relationship of peritraumatic dissociation to the development of PTSD symptomatology in women who have experienced partner abuse. This will provide support for the finding that peritraumatic dissociation is one of the strongest predictors of PTSD symptomatology. It may also provide an important marker for assessment

tools to locate those most at risk when coming into contact with primary or domestic violence support services.

1.4 Organisation of the thesis

Part one of this thesis provides a literature review that explores the phenomena of domestic violence, peritraumatic dissociation and PTSD. The link between these three variables is discussed and research hypotheses are presented. Chapter Two discusses the nature and extent of domestic violence, outlines issues related to conducting research in this field and describes the psychological consequences commonly found in victims of domestic violence. Chapter Three begins by exploring the concept of PTSD, and diagnostic criteria and outlines risk factors identified in the literature that may effect the development of subsequent PTSD. Chapter Four outlines the nature and mechanisms of peritraumatic dissociation, and discusses the empirical evidence for a link between peritraumatic dissociation and the subsequent development of PTSD. This is followed by Chapter Five, which presents the research hypotheses. The second part of this thesis starts with Chapter Six, an outline of the research methodology used to test the research hypotheses. Chapter Seven presents the findings of the study and is followed by a discussion of results in Chapter Eight.

Chapter 2: Domestic Violence

2.0 Chapter Overview

This chapter explores the complex nature of domestic violence. The difficulties in research, of defining domestic violence are discussed, and operational definitions used in the present study are stated. A brief outline of the widespread incidence of partner abuse, both overseas and in New Zealand is presented. This is followed by a discussion about the measurement of domestic violence and the consideration of research difficulties and caveats of conducting research in this field. Research has consistently documented the negative and long lasting impact that domestic violence can have on women's health, and the wide array of physical and psychological outcomes commonly found in victims of domestic violence are reviewed.

2.1 Defining domestic violence

2.1.1 What is domestic?

Defining domestic violence is a difficult task and a number of contrasting definitions have been employed across studies (Browne & Herbert, 1997; Verzyde,1996). A definition of domestic violence, in the first instance depends on what type of relationship is considered 'domestic' (Mirrlees-Black,1999). The term 'domestic violence' is often used synonymously with the term 'family violence' which encompasses a range of behaviours perpetrated by partners and former partners, family members, household members, elders, children and violence perpetrated within other close personal relationships (New Zealand Government Statement of Policy on Family Violence, 1996).

Abuse occurs in some members of every group in society, crossing ethnic, age, racial, socio-economic classes and is perpetrated by both men and women (Hotaling & Sugarman, 1990; Mignon,1998; Oates, 1998; White & Koss, 1991). The present research focuses solely and specifically on women's experience of abuse perpetrated by their intimate partners. Again, several terms have been used to denote partner abuse, including but not limited to: domestic violence;

wife battering; wife beating; wife abuse; partner violence; battered woman, interspousal aggression; spouse abuse; and intimate violence (Freeman, 1979; Gelles, 1985; Maidment, 1984; Ryback & Bassuk, 1986; Walker, 1979,1984; 2000).

Often these terms have been used interchangeably, but have meant very different things from study to study. Historically, early researchers of domestic violence narrowed definitions of partner violence to focus exclusively on abuse within heterosexual marital relationships (Brown and Hendricks, 1998; Jackson, 1998; Verzyde, 1996). Research then expanded in the 1980s to include abuse between non-married populations such as dating and cohabiting couples (Billingham & Sack, 1987; Browne & Herbert, 1997; Ferguson, 1998; Green, 1994; Jackson,1998; White & Koss, 1991). Research has also documented the occurrence of violence within same-sex relationships and there are indications that it is a problem of similar nature and proportions to violence in heterosexual relationships (Jackson,1998; Klier, et al., 1999; Walker, 2000). Given these findings, the present research aimed to be maximally inclusive, to include any intimate, romantic and/or sexual relationship including dating or courtship relationships, marital relationships and same-sex relationships when seeking the sample.

2.1.2 What is violence?

In addition to the types of relationships considered 'domestic', definitions of domestic violence also depend on the types of experiences that are deemed 'violent' or 'abusive' (Mirrlees-Black, 1999). Several types of abuse occur within intimate relationships, although early definitions of domestic violence were limited to include only physically abusive acts. In more recent years however, definitions have been extended to include non-physically abusive acts (Hudson & McIntosh, 1981; Shepard & Campbell, 1992). Psychological abuse is thought to be a very significant form of abuse because of its role in establishing and maintaining the overall abusive dynamic of the relationship (Dutton & Painter, 1993; Klier, et al.,1999; Walker, 1984). Domestic violence is now believed by most to be the systematic use of violence and threat of violence in order to control, subjugate and intimidate women (Klier et al., 1999).

Abuse within an intimate relationship, is commonly categorised into physical, sexual and psychological abuse types. Often two or more abuse types are present in the same relationship, and frequently are combined elements of an abusive episode (Mouradian, 2001). For example, psychological abuse may occur with, precede or follow physical abuse. Sexual abuse and physical abuse may occur at the same time (Browne, 1987; Mahoney & Williams, 1998; Stets, 1991; Walker, 1984,2000). Mouradian (2001) notes that it may be somewhat artificial to separate psychological from physical forms of abuse as physical abuse can also cause emotional and psychological harm, and both serve to establish power and control. However, psychological abuse can often occur in the absence of other types of abuse. Even though there is both conceptual and experiential overlap, abuse types are most often treated separately in research (Mouradian, 2001).

Partner abuse can come in many different patterns such as very occasional explosions of physical assault to continuous degrading putdowns (Leibrich, Paulin, & Ransom,1995). It has been suggested by both abused women and researchers alike (e.g. Herman, 1992; Walker,1979,1984,2000; Wayland, Roth & Lochman, 1991) that it is the ongoing pattern and process of abuse rather than the physical violence itself, that has the most lasting impact on the victim (Dutton,1992a; Klier, et al.,1999; Walker, 2000). Partners that behave abusively may also fulfil the nurturing and positive needs of their partners some of the time, and a relationship may initially begin in this way. Although abuse may end when a relationship ends, commonly abuse continues or worsens after separation. This can happen whether the separation is initiated by just one of the partners or by mutual consent (Mouradian, 2001).

2.1.3 Physical Abuse

In order to make a definition of abuse clearer and easier to operationalise, most often definitions of abuse used in research have been narrowed down to a singular variable in terms of the abusive acts committed (Straus,1986; Verzyde, 1996). Physically abusive acts or behaviours may include but are not limited to slapping, hitting, punching, beatings, strangling, pushing, shoving, pulling hair, using a weapon, twisting arms, or throwing things at the victim. Episodes of

violence, in extreme cases, may end in the death of one or both partners, and at times, other people as well (Brown & Hendricks,1998; Dutton, 1992a; Dutton & Goodman, 1994; Kemp, et al.,1991; Mouradian, 2001). Physical abuse may occur infrequently, but in many relationships it is repetitive and chronic, and can often escalate in frequency and severity over time (Walker, 1984; Dutton, 1992a). Deciding what constitutes violence is not straight forward however, as physically abusive acts can be understood in a variety of ways, in terms of its quality, severity, frequency, intent, effect or a combination of these (Mirrlees-Black,1996; Verzyde,1996).

For example, definitions of abusive acts have varied in terms of what behaviours are considered 'abusive' versus 'acceptable', with some researchers (e.g. Straus, 1980) considering more minor acts such as slapping, pushing or shoving, 'normal' and only severe forms of violence and serious injury as 'not normal' (Dutton,1992a; Dutton & Goodman,1994). Some consider that violent acts are only those where there is an intent to cause harm (Mirrlees-Black,1996; Straus & Gelles, 1986). Definitions have also varied depending on the point at which physical violence is determined to be frequent enough to be considered abusive. Some researchers (e.g. Rounsaville, Lefion, Bieber, & Bieber, 1979) have considered one incident of physical assault to be enough to be considered abusive, while others (e.g. Walker,1979) have only considered repeated physically violent episodes to be abusive.

2.1.4 Sexual Abuse

In earlier years, it was legally impossible for sexual assault to occur in the context of marriage, simply by definition of the relationship of marriage (Dutton,1992a). However, it is now accepted that domestic violence may also include sexual abuse by a partner. Sexual abuse within an intimate relationship includes behaviours that fall under legal definitions of rape, as well as assault to the sexual parts of a woman's body, and any sexual behaviour which is undesired (Marshall, 1992; Shepard & Campbell, 1992). For example, forced oral, anal or vaginal penetration, forcing a woman to have sex with others or the use of pornography, coercion to have sex in ways the woman doesn't desire or under the threat of safety. An abusive partner may also use sexual coercion to

shame and humiliate their partner, or demand sex for extended periods of time (Dutton, 1992a; Walker,2000). Walker (2000) purports that sexual abuse in an intimate relationship appears to be more like incest than stranger rape that is often more violent. It has been estimated in the literature that in addition to physical abuse, between 32% and 59% of abused women also experience sexual abuse in their relationship (Dutton, 1992a). In Walker's (1984) study, 59% of women reported being forced to have sex with an abusive partner. Another study found that approximately 26% of rape victims identified the perpetrator as a husband or male lover (George & Winfield-Laird,1986- cited in Dutton,1992a).

2.1.5 Psychological Abuse

A wide spectrum of behaviours can be considered psychologically abusive. Often researchers in the field (e.g. Klier, et al.,1999; Tolman, 1989; Walker, 1979, 2000) have referred to or used Amnesty International's definition of psychological torture to describe and define what women in abusive relationships may experience with regard to psychological abuse. Eight areas of abuse are included: (1) isolation of victims; (2) induced debility producing exhaustion such as limited food or interrupted sleep patterns; (3) monopolisation of perception including obsessiveness and possessiveness; (4) threats such as death of self, family and friends, sham executions and other indirect threats; (5) degradation including humiliation, denial of victim's powers, and verbal name calling; (6) drug or alcohol administration; (7) altered states of consciousness produced through hypnotic states; and (8) occasional indulgences which, when they occur at random and variable times, keep hope alive that the torture will cease (Klier, et al., 1999; Walker, 2000). Walker (2000) notes that battered women in her study reported being subjected to all eight forms of psychological torture, and therefore provides validation for this definition.

The Domestic Abuse Intervention Project in Duluth, Minnesota developed the Power and Control Wheel (Pence & Paymar, 1993) which identifies eight different methods of using power and control beyond physical and sexual violence including coercion and threats, economic abuse, intimidation,

emotional abuse, using male privilege, using children, minimising, denying, blaming, and isolation. This model is commonly used by domestic violence services internationally and in New Zealand such as the Hamilton Abuse Intervention Project and the Domestic Violence Centre and is illustrated on the following page.

Figure 1. Power and Control Wheel (Pence & Paymar,1993)

2.2 The measurement of domestic violence

As discussed above, domestic violence and the abuse of women is a multidimensional and complex problem. Due to the problems of conceptualising and defining domestic violence, the measurement of this phenomena has always posed a difficult task in research (DeKeserdy & Schwartz,1998). Some have argued that quantitative techniques do not adequately capture the complex experience of being the victim of partner abuse (DeKerserdy & Schwartz,1998). Qualitative interviews are able to give a better picture of the nature and context of abuse, but practically are only able to be done on a small scale. On the other hand, quantitative methods can be carried out on a larger scale, and findings can potentially be generalised to the representative population, although the nuances of individual experiences are unlikely to be adequately described (Mirrless-Black, 1996).

Some of the more well known quantitative measurement instruments used to gather information about domestic violence incidence, prevalence, severity and frequency include the Conflict Tactics Scales (CTS; Straus,1979); the Index of Spouse Abuse (ISA; Hudson & McIntosh, 1981); the Spouse Specific Aggression Scale (SSAG; O'Leary & Curly,1986); the Psychological Maltreatment of Women Inventory (PMWI; Tolman, 1989) and the Abusive Behavior Inventory (ABI; Shepard & Campbell, 1992). All of these measures have both strengths and limitations and researchers have debated the empirical value of particular measures vigorously (DeKeseredy & Schwartz,1998).

The CTS, originally developed for use in large-scale studies of violence within North American families, is by far the most widely used instrument for measuring violence against women within an intimate relationship (Browne & Herbert, 1997; DeKeseredy & Schwartz,1998; Verzyde, 1996). The CTS solicits information regarding 'conflict tactics' used by both men and women and lists eighteen items that measure three different ways of handling interpersonal conflict in intimate relationships including reasoning, verbal aggression and physical violence. Despite its widespread use, a number of researchers and practitioners have highlighted several limitations of this instrument (e.g. DeKeseredy & Schwartz, 1998; Ferraro & Johnson, 1983; Murphy & O'Leary,

1989; Shepard & Campbell, 1992; Straus & Gelles, 1986; Tolman, 1989; Walker, 2000). The CTS has been widely criticised regarding the ideological and factual assumptions it makes about the nature of domestic violence, as it only situates violence and psychological abuse in the context of settling conflicts or disputes. In doing this it ignores control-instigated behaviour or assaults that are unpredictable with no external reason or conflict to mediate. In addition, it overlooks broader social and psychosocial forces, such as patriarchy and the issue of male violence towards women (DeKeseredy & Schwartz,1998; Hudson & McIntosh, 1981). The CTS has also been criticised due to its 'rank ordering' of behaviours in a linear fashion from least to most serious. In doing this, the presumption is made that some events (e.g. a kick) are automatically worse and more injurious than others (e.g. a slap), ignoring the outcomes of injury from violence. For example, a slap, which is considered less serious, can in actuality still draw blood or break teeth. Another major criticism is that the CTS fails to ask about a number of other common acts of abuse such as sexual assault, scratches, burns and a number of other abusive behaviours such as isolation, economic deprivation and other psychologically abusive acts (Tolman, 1989). In response to these criticisms of ignoring the context, meaning and motives of abuse, Straus and colleagues (1996) developed the CTS2. Some specific limitations were addressed such as including more physical and psychological abuse items, items to measure sexual violence and some injury and physical outcome measures. However, the CTS2 continues to situate abuse in the context of settling disputes or conflicts, ignoring control-instigated abuse that does not derive from a known cause (DeKeseredy & Schwartz,1998).

The ABI (Shepard & Campbell, 1992) is a 30-item measure of physical and non-physical abuse. Unlike the CTS, which situates violence in the context of family disagreement and conflict, the ABI reflects the feminist perspective of partner violence which views physical abuse as a means of establishing power and control over the victim and psychological abuse as a means of reinforcing this power and control. The scale also includes a relatively wide range of both physically and psychologically abusive behaviours. Although the ABI, does not address some of the concerns raised about other measures such as the CTS regarding the context in which the violence occurs and the outcomes of violence

(Shepard & Campbell, 1992), it was chosen for use in the present study. The ABI incorporates both physical and psychologically abusive behaviours; draws on feminist theory of violence rather than situating violence in the context of conflict; is relatively brief; and the content and wording of items more closely align with the New Zealand context than other measures such as the ISA.

2.3 Present study definition of domestic violence/partner abuse.

The present study aimed to be maximally inclusive to include all types of intimate relationships. Therefore, participation was not limited to legally married or cohabitating heterosexual partners, but was broadened to include partners in same-sex and dating relationships. The present study uses the term 'domestic violence' and terms such as 'partner abuse', 'battered woman' interchangeably, and is operationally defined as:

> The use of physical and/or psychological abuse against a woman by a male or female partner with whom she has been in an intimate relationship with, including legally married, defacto and dating relationships.

All acts of physical aggression are considered abusive in the present study. Physical abuse is operationally defined in the present study as:

> The use of physical force against a woman, which may include nine different behaviours as listed by the ABI (Shepard & Campbell, 1992), and which also include three items of a sexually abusive nature.

Psychological abuse is differentiated from physical abuse in the present study and is operationally defined as:

> The use of verbal and nonverbal coercive acts which serve to maintain power and control over a woman, and can include 21 different behaviours as listed by the ABI (Shepard & Campbell, 1992). The ABI is detailed in Appendix G.

2.4 The extent of Domestic Violence

Although evidence of partner abuse can be found throughout history, it wasn't until the 1970s, with pressure from proponents of the feminist movement, that domestic violence gained attention as a social problem and gained scholarly attention (Brown & Hendricks,1998; Browne & Herbert, 1997; Klier, et al., 1999; Walker,2000). Early researchers considered wife abuse to be a problem affecting only a small number of women (Dobash & Dobash, 1979; Gelles, 1979). Subsequent research, however, has highlighted the pervasive nature of domestic violence, with numerous studies consistently reporting high estimates of violence within intimate relationships.

National probability surveys of American men and women report as much as 16% to 34% of women are victims of partner abuse (e.g. Browne, 1993; Straus & Gelles, 1990; Ward, Wilson, Polaschk & Hudson, 1995). In Britain, high rates of partner abuse have also been recorded. According to the British Crime Survey conducted in (1996), 23% of women reported experiencing a physical assault by their former or current partner at some time. The inclusion of frightening threats increased these figures to 26% (Mirrlees-Black,1999). Jackson (1998) notes that rates of lesbian abuse appears to be similar to heterosexual violence with preliminary studies reporting that approximately 22% to 47% of samples of lesbians, have been in physically violent same-sex relationships. In dating relationships and college students, reports of partner abuse have ranged between 20% to 50% (e.g. Arias, Samios, & O'Leary, 1987; Breslin, Riggs, O'Leary, & Arias, 1990; Makepeace, 1981; Riggs & O'Leary, 1996; White & Koss, 1991).

Research in New Zealand has established that domestic violence is widespread. In 1993, the National Collective of Independent Womens' Refuges estimated that violence occurs in as many as one in seven New Zealand families. Church (1984) estimated that between 2% and 3% of women were assaulted by their partners each year. Mullen, Roman-Clarkson, Walton & Herbison, (1988) found that 16% of their sample reported being hit at least once by their partner and 10% reported repeated assaults. Ferguson, Horwood, Kershaw, and Shannon (1986) carried out a study on a birth cohort of New

Zealand children and their families. Of the mothers sampled 3.4% reported being assaulted by their legal or defacto husbands in the first year of the study. One in twelve women (8.5%) reported being assaulted by their partners on at least one occasion during the study period of six years.

More recently, a community based survey of 961 women (Kazantzis, Flett, Long, MacDonald, & Millar, 2000) found that 17% of women reported domestic violence by a family member at some point in their lives. Of these, 37% experienced physical abuse from a partner or spouse. The Women's Safety Survey conducted in 1996, surveyed a sample of 500 women, selected from the New Zealand Nationwide Survey of Crime Victims (Young, Morris, Cameron & Haslett, 1997) about their experiences of partner abuse. In terms of physical violence, Morris (1997,1998) reported that one quarter of women with current partners and almost three-quarters of women with recent partners had experienced at least one act of physical or sexual abuse by their partner. One percent of women with current partners and 8% with recent partners reported being treated or admitted to hospital as a result of their partner's violence. For Maori women, the proportions doubled. In terms of non-physical abuse, 44% of women with current partners and 94% of women with recent partners had experienced one of the six listed types of controlling behaviour by their partner. While these prevalence studies give an idea of the extent of domestic violence, estimates of partner abuse vary depending on the purpose of the survey, the political context, the nature of the sample, the method of data collection, the definition of abuse used and how this is measured (Brown & Hendricks, 1998; Feder,1999; Morris,1998).

2.5 Problems involved in domestic violence research

In addition to the problems of defining and measuring domestic violence, a myriad of other methodological caveats and difficulties in conducting domestic violence research have been highlighted in the literature (e.g. Gleason, 1993; Hudson & McIntosh, 1981; Morris, 1998; Russell & Jory,1997; Vogel & Marshall, 2001). Practical and ethical barriers in domestic violence research often outweigh those in most other fields of research, making it difficult to conduct research that is useful and methodologically sound (Newman,

Kaloupek, Keane & Folstein., 1997; Strube, 1988; Rosenbaum, 1988; Verzyde, 1996).

For example, Saunders and Azar (1989) have pointed out the difficulties of recruiting and locating women who have been involved in family violence. They see the problems, in part, as related to the relatively high proportion of women who are unemployed and low in educational qualification, and the high mobility and disrupted life patterns of women who have been abused. Other factors that may inhibit women from participating in research, (or even reporting violence to the police) may include factors such as fear of retaliation from perpetrators and other safety concerns, the private nature of the event, the perceived stigma associated with their victimisation; the belief that no purpose maybe served in sharing their experience; self blame; embarrassment; unawareness or reluctance to acknowledge that certain incidents are violent or abusive, or a reluctance to recall traumatic memories to name some. Reluctance may be based on the fear of being blamed, or having a history of negative outcomes following previous disclosure. (DeKeserdy & Schwartz, 1998; Hudson & McIntosh; 1981; Morris, 1998; Walker, 2000).

Other commonly noted limitations of domestic violence research (e.g. Gleason, 1993; Kazantzis et al., 2000; Verzyde, 1996) have included: the over-reliance on retrospective research designs, reliance on self-report data, the over-reliance on 'convenience' samples, the exclusive focus on abuse within marriage to the exclusion of other types of relationships, lack of appropriate comparison or control groups and the use of unstructured data collection and evaluation techniques. Geffner, Rosenbaum, and Hughes (1988) reviewed 30 articles in the field of domestic violence and reported issues such as infrequent detail about methodology, few standardised measures and procedures, and poor descriptions of sampled battered women. In addition, the authors note the difficulty in family violence data interpretation, with problems of separating out antecedent conditions, correlates and effects of abuse. They assert that many researchers wrongly imply causation rather than associational relationships. Lack of hypothesis testing in most domestic violence studies is another shortcoming mentioned by Gleason. Browne and Herbert (1997) note, that

while domestic violence research is fraught with methodological limitations, research on partner abuse is hindered by the very nature of the act itself, frequently hidden behind the doors of private residences.

2.6 The consequences of domestic violence

Research has consistently documented the negative and lasting impact of partner abuse on women's' physical and psychological health. For example, in a community sample of 961 women aged 19-90 years, domestic violence was found to be the single most important risk factor in predicting psychological distress and physical illness, accounting for as much as 12% of the total psychological distress and 7% of the physical illness among adult women in New Zealand (Kazantzis, et al., 2000).

Additionally, the effects of domestic violence are far reaching, and long term for individuals, families, communities and society. Snively (1994) estimated the economic costs of family violence in New Zealand to be between $1.187 and $5.302 billion annually. Furthermore, the effects of partner abuse on children's well-being has also been documented extensively. Children living in an environment of domestic violence are more likely to be physically and psychologically abused themselves (O'Keefe, 1994). Abused children, and children who are exposed to domestic violence, are also at risk for a variety of problems including behavioural, emotional, physical and cognitive functioning, and other long term developmental problems (Mitchell & Finklehor, 2001)

2.6.1 Physical Sequelae

Partner abuse has been associated with a range of physical health problems. Clearly, women present with serious injury as a result of partner abuse (e.g. Dutton, 1992a; Grisso, Schwarz, Miles, & Holmes, 1996; Stark & Flitcraft, 1996; Walker, 2000). Often women present over and over again. Stark, Flitcraft & Frazier (1979) reported that approximately 53% of victims of domestic violence presented to physicians more than six times with trauma-related injuries. Stark and Flitcraft (1996) assert that a woman who comes to the emergency room three times with injuries has an 80% chance of being a battered woman.

However, some injuries may go undetected such as closed head injuries, muscle tearing, or other injuries that do not demand immediate medical attention (Dutton,1992). Many abused women do not even seek medical treatment unless their injuries are severe. If they do, they may not disclose the reasons for their injuries through fear of consequences from their violent partner (Hendricks-Mathews, 1993). Walker (2000) reported that less than two-thirds of abused women sought medical treatment for their injuries in her original 1979 study of over 400 abused women. Although several authors (e.g. Brown & Hendricks,1998; Dutton, 1992a; Walker, 2000) have documented that abused women will often seek medical attention for other complaints such as insomnia, fatigue, eating disorders, headaches, backaches, chest and abdominal pain, and hyperventilation. Partner abuse has also been associated with health problems such as gynaecological disorders (Schei & Bakketeig, 1980; Stewart & Stotland, 1993), low birth weight of children (Bullock & McFarlane, 1989), and a host of other health related problems (Gerlock, 1999; Stark & Flitcraft, 1996).

2.6.2 Psychological Sequelae

The psychological sequelae of experiencing physical, psychological and sexual abuse within intimate relationships are many and varied (Dutton,1992a;1992b; Gleason, 1993; Walker, 2000). Characteristics of the woman as the cause of abuse against them, was widely accepted as plausible in early research on domestic violence (Herman, 1992). However, Gleason (1993) states that most research authorities now attribute the psychological disturbances found in abused women as the result of the trauma of abuse rather than the cause of it.

Psychological symptoms of distress commonly found in abused women have included but are not limited to: aggression, numbed affect, apathy, agitation, phobia, (Gleason, 1993; Verzyde, 1996); high avoidance and arousal, cognitive disturbances, low-self esteem, (Cascardi & O'Leary, 1992; Finkelhor & Yllo, 1985; Stark & Flitcraft, 1996) confusion; somatic complaints, psychic numbness, anger; grief, hopelessness, helplessness, powerlessness, social withdrawal (Herman, 1992; Walker, 1979,1984,2000); alteration in affect regulation and consciousness, characterological changes (Herman,1992); denial of the

seriousness of the abuse, dissociation, withdrawal, emotional numbing, and passivity (Dutton, 1992a, 1992b; Herman 1992; O'Keefe,1998; Walker, 1979,1984). Research has also indicated that partner abuse is a significant risk factor for suicide ideation and suicide attempts (e.g. Dutton,1992a; Stark & Flitcraft, 1996; Thompson, et al.; 1999).

Partner abuse has also been linked to psychiatric and psychological disturbance as prescribed by the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association,1980, 1987,1994). Romans-Clarkson and colleagues (1990) found in a sample of New Zealand women that physical abuse was related to an increased likelihood of psychiatric disorder and Carmen, Rieker, and Mills (1984) documented that nearly 43% of their sample of psychiatric patients had a history of physical abuse. Bergman, and colleagues (1987) found that abused women sought more psychiatric assistance in the past than non-abused women in their sample. Gleason (1993) found that battered women had a significantly higher prevalence rate of mental disorder than comparison women, reporting extremely high rates of psychosexual dysfunction, major depression, generalised anxiety disorder, obsessive-compulsive disorder and posttraumatic stress disorder.

PTSD and symptoms associated with PTSD has become recognised as a common response to the trauma of domestic violence (Dutton, 1992b, Herman, 1992; Vogel & Marshall, 2001) although the application of this diagnosis is only relatively recent (Dutton & Goodman, 1994). Previous to PTSD being applied to battered women and explicitly examined, several studies in the seventies and eighties (e.g. Finkelhor & Yllo, 1985; Hilberman & Munson, 1978; Star, Clark, Goetz & O'Malia, 1979) reported some of the symptomatology of PTSD (Kemp, et al., 1991). PTSD involves the development of intrusion symptoms such as nightmares, flashbacks or re-experiencing the abuse; avoidance symptoms, such as constricted affect or affective numbing and autonomic hyperarousal symptoms including sleep disturbance, hypervigilance, intense anxiety, difficulty concentrating and heightened startle response (Dutton, Burghardt, et al., 1994; Houskamp & Foy, 1991; Kemp, et al.,1991; Walker, 2000). An increasing body of research has used standardised measures to confirm the link between

partner abuse and PTSD diagnosis (e.g. Gleason, 1993; Houskamp & Foy, 1991).

Commonly, the Battered Woman Syndrome (BWS; Walker, 1979, 1984, 2000) has been used to describe the psychological effects of abuse in intimate relationships. From 1978 to June 1981 Walker undertook a study of over 400 self-reported battered women and developed a general clinical description of a typical battered woman. Key psychological and sociological factors were identified to compose the 'Battered Woman Syndrome', although statistical analyses, structured interviews, or standardised assessment instruments were not used. Psychological disturbances which describe this syndrome include symptoms of PTSD such as re-experiencing of traumatic events, recurrent nightmares, numbed affect, flashbacks, hypervigilance and increased startle responses, cognitive distortions including memory loss and dissociation, and additional features including anxiety and depression, fearfulness, guilt, poor self image, worthlessness, sleep and eating disorders, and the disruption of interpersonal relationships (Briere, 1997; Gleason, 1993; Walker, 1979, 1984, 2000).

Battered Woman Syndrome has also been used to refer to Walker's theories of 'learned helplessness' and 'the cycle theory of battering' or 'cycle of violence'. The theoretical construct of 'learned helplessness' first described by Seligman 1975 was adapted by Walker to refer to the belief in the uncontrollability of future abuse and the futility of women's response to effect positive control aimed at stopping or escaping the abuse. The 'cycle of violence' theory, describes the dynamics of an abuser's behaviour, where the victim of abuse is drawn back into the relationship when the abuser is contrite, apologetic and attentive following an abusive episode. In more recent years Walker has defined BWS as a possible subcategory of PTSD, purporting that it is the most useful diagnostic category to use for battered women when it is necessary to use a diagnostic formulation (Walker,2000).

Dutton (1996) in a critique of the concept of BWS, notes that it is often misunderstood, vague and misleading, even among professionals. There is no

clearly defined set of criteria to define this syndrome, nor is it a recognised diagnostic term in the DSM-IV (APA, 1994) although it has often been used in place of the diagnostic term PTSD. Some researchers (e.g. Dutton, 1992b; Herman, 1992;) have formulated similar frameworks to capture victim's responses to repeated interpersonal trauma such as partner abuse. For example, Dutton (1992b) describes the psychological effects of partner abuse within three categories, 1) psychological symptoms, including PTSD as well as other indicators of psychological distress and dysfunction; 2) cognitive changes, including attributions and attitudes; and 3) disturbances in relationship skills beyond those used within an abusive relationship. Herman (1992) has suggested a new diagnosis called 'Complex PTSD' to describe the symptoms of long-term chronic trauma such as partner abuse. This formulation goes beyond DSM posttraumatic stress disorder diagnostic criteria to include additional symptoms and factors and will be discussed further in the next chapter.

2.7 Chapter Summary

The negative impacts of domestic violence are far reaching to both individuals and society. Thus, it is a valuable area for research, despite the difficulties of defining and measuring this multidimensional and complex problem. Of great concern is the detrimental and often long term impact that domestic violence can have on women's physical and psychological well-being. A wide array of psychological symptoms of distress have been highlighted in the literature. The construct of PTSD has been used to understand psychological responses to a range of traumatic experiences, from natural disaster to military combat. More recently, PTSD has been applied to systemise some of the psychological responses displayed by victims of partner violence. A growing number of clinicians and researchers suggest that PTSD may be the most accurate diagnosis for survivors of partner violence and is discussed further in the next chapter.

3.0 Chapter Overview

The diagnostic classification of PTSD was first introduced in the third edition of the Diagnostic and Statistical Manual of Mental Disorders (APA, 1980). Since this time there has been a proliferation of research and a rapid accumulation of knowledge about the disorder (Schlenger, Fairbank, Jordan & Caddell, 1997). This chapter briefly outlines the emergence of PTSD into the current DSM-IV (APA,1994) classification system of mental disorders, and is followed with a detailed presentation of diagnostic criteria. The chapter proceeds with a consideration of the nature of the disorder including prevalence in the general population and domestically abused women populations. Issues such as concurrent diagnoses and associated features of PTSD are presented, including a description of the broader conceptualisation of posttrauma reactions common in victims of interpersonal trauma, named Complex PTSD (Herman, 1992,1993). Factors associated with a risk of developing the disorder, especially as they pertain to abused women is then discussed.

3.1 DSM-III TO DSM-IV

PTSD was formally recognised as a diagnostic category, classified as an anxiety disorder, in the third edition of the Diagnostic and Statistical Manual of Mental Disorders (APA, 1980). Up until this time of formal classification, certain aspects of this disorder have been described through the ages by such names as 'soldier's heart'; 'battle fatigue'; 'combat neurosis'; 'traumatic neurosis' (Davidson & Foa,1993); 'shell shock'; 'rape trauma syndrome' (Foa & Meadows, 1997); 'adjustment reactions' and 'pathological' grief responses (Foy,1992). For the most part, interest in traumatic disorders has largely focused on the effects of combat on men. It is now recognised, that PTSD may arise from a variety of traumatic events that can occur throughout the lifecycle of both men and women (Davidson & Foa, 1993).

Each progressive edition of the DSM (APA,1980,1987,1994) has attempted to refine diagnostic definitions and resolve inconsistencies to reflect the most

current clinical and empirically informed conceptualisation of PTSD (Vincent,1994; Weathers, Keane, King & King, 1997). Essentially, DSM-IV diagnostic criteria for PTSD has remained relatively unaltered from those in DSM-III-R with the most exceptional change being the definition of the stressor or Criterion A (APA, 1994; Davidson & Foa, 1991; Norris & Riad, 1997; Vincent,1994).

In DSM-III-R the definition of trauma was described as an "event that is outside the range of usual human experience and that would be markedly distressing to almost anyone" (APA, 1987, p 247). Debate about defining Criterion A, has concerned the question of 'unusual experience', the kinds of traumatic stressors that would constitute appropriate events for meeting diagnostic criteria and whether qualifying events must be limited to high magnitude and uncommon stressors (Breslau & Davis, 1987; Davidson & Foa, 1991; Foy,1992; Kilpatrick & Resnick,1993; March,1993).

In contrast, DSM-IV has redefined the stressor criterion as "the personal experience of an event that involves actual or threatened death or serious injury, or other threat to one's physical integrity; or witnessing an event that involves death, injury, or a threat to the physical integrity of another person; or learning about unexpected or violent death, serious harm, or threat of death or injury experienced by a family member or other close associate... and (b) the person's emotional response to this event included horror, helplessness, or intense fear" (APA,1994, p.424). The DSM-III-R (APA, 1987) definition emphasised the event itself, while the DSM-IV (APA, 1994) has both an objective and subjective component which emphasises the subjective appraisal of the event (Norris & Riad,1997).

Other notable changes from DSM-III to DSM-IV highlighted by Weathers and colleagues (1997, p. 105) have included: "adding a distinct hyperarousal symptom cluster; combining numbing and avoidance symptoms into the same cluster, dividing cued 'symptom intensification' into cued physiological arousal and psychological distress; adding avoidance of thoughts and feelings; dropping guilt and non-specific memory impairment, but adding memory impairment

related to the trauma; adding 'sense of a foreshortened future,'... qualifying several criteria to reflect alternative symptom expression in children and adding the requirement that the syndrome cause significant distress or impairment in social and occupational functioning".

3.2 DSM-IV Diagnostic Criteria

3.2.1 Criterion A: The traumatic stressor

PTSD is listed as an anxiety disorder on Axis I of the DSM-IV, and is described by six clinical criteria. The DSM-IV diagnostic criteria for PTSD are detailed in Table 1 (APA,1994). As noted above, central to a diagnosis of PTSD is criterion A, the stressor. The traumatic stressor is the prime causative factor in the development of PTSD and is the major criterion that distinguishes PTSD from other anxiety disorders (Kaplan & Sadock, 1998; Rothbaum & Foa, 1993). Even if all other symptom criteria are met, a diagnosis cannot be made in the absence of a precipitating traumatic event or stressor (Davidson & Foa,1991). The traumatic experience is usually overwhelming enough to effect almost anyone and can arise from experiences such as war and combat, sexual and physical assault, robbery, kidnapping, being taking hostage, torture, natural catastrophes, assault, rape and serious accidents (Kaplan & Sadock, 1998). Although the stressor is necessary, it is not sufficient to cause the disorder.

Table 1. Diagnostic criteria for PTSD (APA, 1994)

A The person has been exposed to a traumatic event in which both of the following were present:

1. the person experienced, witnessed or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others
2. the person's response involved intense fear, helplessness, or horror.

B The traumatic event is persistently re-experienced in one (or more) of the following ways:

1. recurrent and intrusive distressing recollections of the event, including images, thoughts or perceptions;
2. recurrent distressing dreams of the event
3. acting or feeling as if the traumatic event were recurring (e.g. reliving the experience, illusions, hallucinations, and dissociative flashback episodes, including those on wakening or when intoxicated);
4. intense psychological distress at exposure to internal or external cues that symbolise or resemble an aspect of the traumatic event;
5. physiological reactivity on exposure to internal or external cues that symbolise or resemble an aspect of the traumatic event.

C Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before the trauma) as indicated by at least three of:

1. efforts to avoid thoughts, feelings or conversations associated with the trauma;
2. efforts to avoid activities, places or people that arouse recollections of this trauma;
3. inability to recall an important aspect of the trauma;
4. markedly diminished interest or participation in significant activities;
5. feeling of detachment or estrangement from others;
6. restricted range of affect (e.g. unable to have loving feelings);
7. sense of a foreshortened future (e.g. does not expect to have a career, marriage, children or a normal life span).

D Persistent symptoms of increased arousal (not present before the trauma) as indicated by at least two of the following:

1. difficulty falling or staying asleep;
2. irritability or outbursts of anger;
3. difficulty concentrating;
4. hypervigilance;
5. exaggerated startle response.

E The symptoms on Criteria B, C and D last for more than one month.

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

Specify if:

Acute: if duration of symptoms is less than 3 months

Chronic: if duration of symptoms is 3 months or more

Specify if:

With Delayed Onset: if onset of symptoms is at least 6 months after the stressor

3.2.2 Domestic violence as criterion A

By these criteria, domestic violence in many situations can be considered a traumatic stressor (Browne,1993; Dutton, 1992b; Dutton & Goodman, 1994; Herman, 1992). Domestic violence involves physical, sexual and psychological abuse, and in some instances has been equated to the torture of hostages. Domestic violence may include severe physical harm or injury, threat to one's life and bodily integrity, and receipt of intentional injury or harm. Partner abuse may involve witnessing or learning of violence or threat of violence to a loved one. Or there may be a sudden loss or threat of loss, such as when an abusive partner threatens to 'take' the children as a means of controlling the woman (Browne, 1993; Dutton, 1992b; Dutton, Burghardt, et al., 1994).

Houskamp and Foy (1991) and others (e.g. Dutton, 1992a; Herman, 1992) note, that in contrast to a number of other traumas, domestic violence has the tendency to involve multiple occurrences of violence over an extended length of time. Moreover, within a setting that is familiar and assumed to be a place of safety. Some authors (e.g. Dutton, 1992; Dutton & Goodman, 1994) have noted that the application of PTSD to women abused by their partners has been relatively delayed. Dutton and Goodman (1994) have proposed several reasons for the delayed application of PTSD to explain women's responses to trauma including: 1) an early research focus on combat, followed by a focus on natural disasters, and only relatively recently, a focus on interpersonal violence; 2) only severe forms of violence were perceived as not normal or outside the range of usual human experience; 3) women victims of violence were considered to be as violent or as culpable as perpetrators; 4) psychological problems frequently portrayed as causes rather than effects; 5) the array of problems displayed by abused women were often considered unrelated to exposure to violence. Today there is little doubt that events frequently experienced by abused women constitute 'traumatic experience", and can fulfil the diagnostic criteria for PTSD.

Terr (1991) has drawn a distinction between what she calls short term Type I traumatic events and prolonged Type II traumatic events. Type I traumatic events are described as short term and unexplained events, isolated

experiences, sudden, surprising and devastating events, of limited duration (e.g. motor vehicle accident). In contrast Type II events are described as sustained and repeated ordeal stressors, and may include a series of traumatic events or exposure to a prolonged traumatic event. This includes events such as variable, multiple, chronic repeated and anticipated traumas that are more likely to be of intentional human design. Domestic Violence is considered a Type II event, which is more likely to lead to what Herman (1992) calls a Complex PTSD reaction.

3.2.3 Exposure to trauma

Epidemiological data has indicated that lifetime exposure to a variety of traumatic events is high in the general population. For example, Norris (1992) found a lifetime exposure rate to at least one event including physical and sexual assault, tragic death, robbery, disaster, motor vehicle accidents, fire and combat to be 69%. Breslau and colleagues (1991) estimated that 4 out of 10 Americans have experienced a major trauma. Kilpatrick and Resnick (1993) found that 75% of women in their sample had been exposed to some type of victimisation. Resnick, Kilpatrick, Dansky, Saunders and Best (1993) found lifetime exposure to any type of traumatic event in their sample of 4008 women was 69%. In a community sample of 1500 New Zealand adults, 61% had experienced one of the 12 traumatic events examined in their lifetime, and 9% had experienced a traumatic event in the past year (Flett, Kazantzis, Long, MacDonald & Millar, in press). In addition, several epidemiological studies (e.g. Breslau et al., 1991; Flett et al., in press; Norris, 1992; Vrana & Lauterbach, 1994) have found that rates of multiple exposures to traumatic events is quite substantial. For example, Flett and colleagues (in press) reported that 75% of respondents exposed to trauma in their sample, had experienced two or more traumatic events.

3.2.4 PTSD prevalence

Research has suggested that the occurrence of PTSD following exposure to a traumatic event is the exception rather than the rule (e.g. Breslau et al., 1991; Yehuda & MacFarlane, 1995). Green (1994) notes that on average about a quarter of individuals who are exposed to an extreme stressor go on to develop

PTSD. Breslau and colleagues (1991) have estimated lifetime prevalence of PTSD in the general US population to be 9.2%. High rates of PTSD have also been found in a number of specific trauma populations such as Vietnam combat veterans, disaster victims, child abuse victims, homeless people, and rape victims to name some (e.g. Green, 1993; Kilpatrick & Resnick, 1993; McNally, 1993). Norris (1992) estimated current rates of PTSD to be 14% from sexual assault, 13% from physical assault, 12% from motor vehicle accidents, 5% from disasters and 8% from tragic death.

It appears that men report higher rates of exposure to trauma, but women report more PTSD (see Wolfe & Kimerling (1997) for a discussion about gender issues in the assessment of PTSD). Yehuda and McFarlane (1995) note that it is important to consider the nature and severity of the traumatic event. For example, Breslau and colleagues (1998) found that the highest risk of PTSD was associated with assaultive violence and Resnick and colleagues (1993) found that the rate of PTSD in their sample was significantly higher among crime versus non-crime victims (35.8% vs. 9.4%).

Variable rates of a current PTSD diagnosis have also been reported in samples of women who have been abused by their partners. For example, PTSD prevalence rates of 31% to 60% have been documented among abused women seeking help from domestic violence programs while living at home (Gleason, 1993; Houskamp & Foy, 1991). Of those living in battered women's shelters between 40%-89% have been reported to meet PTSD criteria (Gleason, 1993; Kemp, et al., 1991; West, Fernandez, Hillard, & Schoof, 1990). Astin, Lawrence, and Foy (1993) reported that 33% of their sample of women from shelters and a community clinic met criteria for PTSD diagnosis. In addition, Astin, Ogland-Hand and Foy (1995) found that battered women exhibited significantly higher rates of PTSD than maritally distressed women (58% vs. 18.9%).

3.2.5 Criterion B: Re-experiencing the trauma

The second major clinical feature of PTSD involves persistent re-experiencing of the traumatic event and must be present in at least one of five ways. This

includes recurrent and intrusive distressing recollections of the event including images, thoughts, or perceptions; recurrent distressing dreams of the event; acting or feeling as if the traumatic event were recurring; and intense psychological distress or physiologic reactivity upon exposure to internal or external cues that symbolise or resemble an aspect of the trauma (APA,1994).

Weiss (1997) asserts that recollections are typically spontaneous and uncontrollable, have a 'life of their own', are unbidden, unwelcome, and unable to be easily stopped once started. An example might be, a woman not focusing on any particular thoughts, who has a sudden and distressing memory of an abusive episode. Thinking of one's experiences and feeling saddened by the memories, volitionally, and without a sense of intrusion to the experience of remembering is not regarded as meeting the criterion for intrusive recollections. Weiss also notes that repeated ruminative thoughts not related to a traumatic event do not meet the criterion of intrusive recollections but rather are specific to other disorders (for example a depressed individual who thinks 'I am worthless').

Acting or feeling as if the traumatic event were recurring may include a sense of reliving the experience, illusions, hallucinations, and dissociative flashback episodes, including those that occur upon awakening or when intoxicated. Weiss (1997) notes that there is a distinction between an intrusive memory where people perceive themselves to be remembering the event in contrast to feeling as if the event were happening again. In this case, an individual loses the ability to distinguish past from present. Behaviour is dissociative-like, and often unknown to the individual until described by someone who has observed the behaviour. For example, a victim of domestic violence, may hear a door slamming, and see the abusive scene before her eyes as though she were reliving the experience.

Psychological distress at exposure to cues of the event may include fear, anxiety, anger, or a sense of impending doom. Cues can be external, such as an anniversary of the event, or internal, such as anticipating having to approach a feared location. An inability to face certain situations and continue with

ordinary daily activities because of the possibility of reminders or re-exposure is central to this criterion. Physiologic reactivity on exposure to cues of the event may include heavy or irregular breathing, light-headedness, tingling in the extremities, tightness in the chest, knots in the stomach, damp or cold palms or feet (Weiss, 1997).

3.2.6 Criterion C: Avoidance and numbing of responsiveness

The second cluster of criterion symptoms involve avoidance of stimuli associated with the trauma and numbing of general responsiveness. This can be indicated by efforts to avoid thoughts, feelings or conversations associated with the trauma; efforts to avoid activities, places or people that arouse recollections of this trauma; inability to recall an important aspect of the trauma; markedly diminished interest or participation in significant activities; feeling of detachment or estrangement from others; restricted range of affect (e.g. unable to have loving feelings) and a sense of a foreshortened future (e.g. does not expect to have a career, marriage, children or a normal life span). For a PTSD diagnosis at least three of these symptoms must be present (APA,1994). Some studies have suggested that avoidance tends to appear later in the course of PTSD (Shalev, Peri, Schreiber & Caneti, 1996). Shalev and colleagues (1996) suggest that this is most probably due to avoidance being a "defensive strategy" to contain the distress generated by the re-experiencing symptoms.

Efforts to avoid thoughts, feelings, or situations that arouse recollections of the event, need not be successful in reducing distress, but there should be indications that distress occurred to fulfil this criterion. Avoidance strategies may be obvious or subtle, adaptive or maladaptive. Common avoidance strategies include refusal to talk about the trauma, the use of alcohol or drugs to cloud memories, and overworking. The individual may or may not be aware of these avoidance strategies. For example, avoiding going to a certain park, because the person was assaulted there. Efforts to avoid activities including places, people, or things that remind of the trauma and evoke distress does not include avoidance of social situation, or anxiety-provoking situations unrelated to a traumatic event (Weiss, 1997).

Inability to recall an important aspect of the traumatic event has been referred to as 'psychogenic amnesia'. In this case, the individual is aware of important details that cannot be remembered or there are gaps and holes in their story as it is remembered. For example, an abused woman may not remember how she escaped or survived an abusive episode. Psychogenic amnesia may be partial or complete and high levels of distress often accompany this symptom. Forgetting minor details, head injury, alcohol-induced 'blackouts' or other neurological memory failure do not meet this criterion (Weiss, 1997).

Restricted range of affect is also referred to as 'psychic numbing'. Often this is apparent in people who are unable to have loving feelings, they are numb and don't have feelings they think they should. Sense of a foreshortened future should be distinguished from chronic lack of regard for future consequences, for example, by someone with antisocial personality disorder. An example of the sense of a foreshortened future may be a child who doesn't expect to have a career, marriage, children or a long life, or a hurricane survivor who does nothing to prepare for future emergencies because he won't be around anyway (Weiss, 1997).

Two criterion, markedly diminished interest in significant activities; and feelings of detachment or estrangement from others, essentially refers to a change after the trauma. Activities in which interest is lost must have been meaningful prior to the trauma witnessed by continued interest or focus on the activity. For example, a witness to a shooting who abandons a lifelong passion for duck hunting. Similarly, there must be an increase in feelings of detachment or distance from others to fulfil this criterion (Weiss,1997). It has been hypothesised that numbing and avoidance have different functions whereby avoidance is regulated by strategic psychological processes and numbing is similar to dissociation. Foa and Riggs (1993-cited in Foa & Rothbaum, 1998) suggest that upon exposure to trauma-related information, victims first mobilise effortful strategies to avoid arousal, but when such strategies fail, a 'shutting down' of the affective system occurs, a process which is experienced as numbing.

3.2.7 Criterion D: Increased Arousal

The cluster of symptoms described by Criterion D refer to persistent symptoms of increased arousal. This may be experienced as difficulty falling or staying asleep; irritability or outbursts of anger; difficulty concentrating; hypervigilance; and exaggerated startle response. Two of these five symptoms must be present for a diagnosis of PTSD (APA,1994). Autonomic arousal, which serves the function of alerting the organism to potential danger, appears to lose that function in people who have been traumatised. Individuals with PTSD tend to be in a constant state of 'fight or flight' which resembles their body's response during the initial trauma, and the easy triggering of somatic stress reactions causes people with PTSD to be unable to rely on bodily sensations to warn them against 'real' impending threat (Resick, Nishith, & Atin, 1999).

Irritability or outbursts of anger is often coupled with a sense of loss of control, or fear of even greater expression of anger or hostility. Difficulties concentrating are frequently reported in both the acute and chronic phases of response. Reports of difficulty concentrating may be a function of intrusive images and thoughts that may interfere with cognitive tasks that allow attention to wander such as reading (Weiss, 1997). Exaggerated startle response is often witnessed if a sudden noise or movement occurs and the individual exhibits a startle response incongruent with the stimulus and what would typically be expected. Hypervigilance, is excessive attention to external stimuli beyond that necessary for a realistic appraisal of the level of external threat. For example, a victim of domestic violence may continuously look over her should when leaving her residence (Weiss, 1997). Browne (1993) notes that it may be particularly confusing for professionals when victims of domestic violence display periods of denial (an integral part of survival for women exposed to ongoing violence by their partners) interspersed with expressions of extreme fear or desperation at the dangers being faced.

3.2.8 Criterion E, Criterion F, and specifiers.

Criterion E states that the duration of the disturbance (Criterion B, C and D) is most persist for more than one month after the traumatic event. A diagnosis of Acute Stress Disorder (ASD), is more appropriate for symptoms that occur

within one month of the traumatic stressor. ASD was conceptualised and included in the DSM-IV as an acute form of PTSD in recognition of the potentially high levels of distress that individuals can experience in the acute trauma phase (Bryant & Harvey, 1997). Consistent with PTSD, ASD requires exposure to an extreme traumatic stressor, in addition to at least one symptom from each of the PTSD symptom clusters of re-experiencing, avoidance, and hyperarousal. A diagnosis of ASD is distinguished form PTSD by its emphasis on dissociative symptoms. An individual must have at least three dissociative symptoms as is detailed in Table 2. Criterion F requires that the disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Table 2. Diagnostic criteria for Acute Stress Disorder (APA, 1994)

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

B Either while experiencing or after experiencing the distressing event, the individual has three (or more) of the following dissociative symptoms:
   (1) a subjective sense of numbing, detachment, or absence of emotional responsiveness
   (2) a reduction in awareness of his or her surroundings (e.g., "being in a daze")
   (3) derealization
   (4) depersonalization
   (5) dissociative amnesia (i.e., inability to recall an important aspect of the trauma)

C. The traumatic event is persistently reexperienced in at least one of the following ways: recurrent images, thoughts, dreams, illusions, flashback episodes, or a sense of reliving the experience; or distress on exposure to reminders of the traumatic event.

D. Marked avoidance of stimuli that arouse recollections of the trauma (e.g., thoughts, feelings, conversations, activities, places, people).

E. Marked symptoms of anxiety or increased arousal (e.g., difficulty sleeping, irritability, poor concentration, hypervigilance, exaggerated startle response, motor restlessness).

F. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning or impairs the individual's ability to pursue some necessary task, such as obtaining necessary assistance or mobilizing personal resources by telling family members about the traumatic experience.

G. The disturbance lasts for a minimum of 2 days and a maximum of 4 weeks and occurs within 4 weeks of the traumatic event

H. The disturbance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition, is not better accounted for by Brief Psychotic Disorder, and is not merely an exacerbation of a pre-existing Axis I or Axis II disorder.

In addition to the PTSD criteria discussed above, specifiers may be used to specify the duration of symptoms as either acute (less than 3 months) or chronic (3 months or longer). Symptoms have been found to fluctuate over time and may be most intense during periods of stress (Kaplan & Sadock, 1998). Rates of PTSD usually decline over time, however, Green (1994) in a review of research on traumatic stress, posits there is clear evidence that PTSD is a long lasting disorder in many individuals, stating that up to half of those who develop the disorder may continue to have it decades later without treatment. For example, Houskamp and Foy (1991) reported a rate 45% current PTSD, in a sample of abused women who had been out of the relationship for over a year. McFarlane (1986) reported PTSD rates of approximately 30% at 4 months, 11 months and 29 months post event among Australian bush fire-fighters. Green (1994) further suggests that while studies have found treatment to be effective, about 50% of those treated may still meet full criteria for PTSD at the end of treatment. McFarlane (1986) found that an acute pattern of morbidity was less frequently demonstrated than delayed onset or chronic forms in volunteer bush fire-fighters.

PTSD may develop months or years after the experience of trauma (Rothbaum, Foa, Riggs, Murdock & Walsh, 1992). If at least 6 months have passed between the traumatic event and the onset of the symptoms, 'with delayed onset can also be specified. Some authors have used the term 'Partial PTSD' when the full criteria of PTSD are not quite met but clinically, the disorder seems likely. For example when a victim of trauma manifests one or two avoidance symptoms rather than the required three (Weiss, 1997).

3.3 Associated features and comorbidity

Weathers and colleagues (1997), and others (e.g. Brett, 1996) note that PTSD has proven to be a difficult construct to define, with continued debate regarding boundaries of the syndrome; its relationship to other disorders, its placement in the DSM diagnostic system and the hypothesised sequelae of traumatic events.

In addition to the specific PTSD criteria described above, a number of other posttraumatic responses and symptoms may manifest in victims of trauma.

Dissociation, somatisation, posttraumatic personality dysfunction, depression, anxiety and substance abuse are all common outcomes of trauma (Green, 1994). The DSM-IV also describes associated features that individuals diagnosed with PTSD may describe, such as painful guilt feelings about surviving or the things that they had to do to survive. PTSD may affect interpersonal relationships leading to marital conflict, divorce, or loss of job. Auditory hallucinations and paranoid ideation can be present in some severe and chronic cases.

Furthermore, PTSD appears to possess features that overlap with other psychiatric illnesses (Dutton & Goodman, 1994; Kemp, et al., 1991). PTSD has also consistently been found to be associated with high rates of comorbid clinical syndromes (Brett, 1993; Weathers et al., 1997). Indeed, Green (1994) asserts that other psychiatric and psychosocial disturbances occur in about 80% of cases of PTSD. In a Vietnam veteran sample, Keane and Wolfe (1990) found over 75% of patients with PTSD also met criteria for at least one other diagnosis. In a community survey, Davidson and colleagues (1990) found PTSD to be associated with somatisation disorder, schizophrenia, panic disorder, social phobia, obsessive compulsive disorder, drug abuse, major depression, agoraphobia, simple phobia and generalised anxiety disorder. The most common comorbid disorders reported in the literature include major depression and manic disorders, anxiety disorders and substance abuse (Brett, 1993; Davidson, Kudlar, Saunders & Smith, 1990; Kessler, Sonnega, Bromet, Hughes & Nelson, 1995; Wolfe & Kimerling, 1997). Eating disorders such as bulimia; anorexia and body dysmorphia; borderline personality disorder and other affective disorders have also been found to be common in women who have experienced trauma or partner abuse (Briere, 1997; Davidson & Foa, 1993; Herman, 1992; Wolfe & Kimerling, 1997).

Rates of attempted suicide and suicidal ideation are also high in individuals diagnosed with PTSD (Kessler et al., 1995). Davidson and colleagues (1991) reported that individuals in their sample diagnosed with PTSD were eight times more likely to have attempted suicide, even after controlling for depression. A greater incidence of PTSD and suicide attempts have also been found in

samples of abused women (e.g. Browne, 1993; Davidson & Foa, 1993; Dutton,1992a; Thompson, et al.,1999). Thompson and colleagues (1999) assessed the presence of PTSD as a possible mediating variable in the link between partner physical and non-physical abuse and suicidal behaviour in women. They found physical partner abuse, non-physical partner abuse, and PTSD were all risk factors for suicidal behaviour. Furthermore, they found that the association between physical partner abuse and suicidal behaviour was mediated by PTSD.

These, high rates of co-occurring disorders, often with overlapping symptoms, presents some difficulties in making diagnoses and differential diagnoses of PTSD presenting both clinicians and researchers with a number of dilemmas in the assessment, treatment, and investigations of the disorder (Green ,1994; Vincent,1994; Weathers et al., 1997). For example, the question is raised as to whether symptoms (e.g. depressive symptoms) is an independent disorder warranting an independent diagnosis or whether primarily a correlate of PTSD. Additionally, is the dilemma that many cormorbid features of PTSD (e.g. substance abuse) are also highly cormorbid in depressive disorders. Furthermore, there is considerable overlap of symptoms in PTSD and some other disorders such as borderline personality disorder, both in etiology and symptom expression with numerous features common to both disorders (Wolfe & Kimerling, 1997). Weathers and colleagues (1997) add that the reasons for this comorbidity are not clear, and has prompted some researchers (e.g. Brett,1993; Davidson & Foa, 1991) to challenge the placement of PTSD in the DSM-IV taxonomy and the assumption that PTSD is a distinct diagnostic entity.

3.4 Complex PTSD

While the DSM-IV symptoms of PTSD are widely acknowledged as encompassing some of the most significant sequelae of exposure to trauma, some researchers (e.g. Dutton, 1992a, 1992b; Herman, 1992,1993) have argued that PTSD diagnostic criteria do not adequately capture the full range of posttrauma symptomatology, particularly for victims of multiple traumas and chronic interpersonal trauma, or what Terr (1991) describes as Type II trauma such as partner abuse. Herman has suggested a broader conceptualisation of

posttraumatic sequelae and has promoted a broader diagnostic category named 'Complex PTSD'. Herman argues that the DSM-IV diagnostic formulation of PTSD derives largely from survivors of circumscribed single events such as combat, disaster and rape and fail to capture the protean symptom manifestations of prolonged and repeated trauma. Herman's (1992, 1993) formulation of Complex PTSD was considered for inclusion in DSM-IV under the name of 'Disorders of Extreme Stress Not Otherwise Specified (DESNOS), but were only included as associated features of PTSD in the taxonomy.

In addition to PTSD symptoms, Herman adds symptoms such as excessive somatisation, dissociation and affect dysregulation. Herman also suggests that survivors of prolonged trauma such as partner abuse suffer characterlogical changes in personality such as deformations of relatedness including idealisation of the perpetrator; oscillations in attachment with the formation of intense and unstable relationships; deformations of identity and structures of the self involving the image of the body, internalised images of others, and values and ideals that lend a sense of coherence and purpose are broken down such as a malignant sense of self as contaminated, guilty and evil. The third area in Herman's formulation involves vulnerability to repeated harm, both self-inflicted and by others. An outline of Complex PTSD seven diagnostic criteria are detailed in Table 3.

Table 3. Complex PTSD diagnostic criteria (Herman,1992)

1. A history of subjection to totalitarian control over a prolonged period (months to years). Examples include hostages, prisoners of war, concentration-camp survivors, and survivors of some religious cults. Examples also include those subjected to totalitarian systems in sexual and domestic life, including survivors of domestic battering, childhood physical or sexual abuse, and organized sexual exploitation.

2. Alterations in affect regulation, including:
    - persistent dysphoria
    - chronic suicidal preoccupation
    - self-injury
    - explosive or extremely inhibited anger (may alternate)
    - compulsive or extremely inhibited sexuality (may alternate)
3. Alterations in consciousness, including:
    - amnesia or hypermnesia for traumatic events
    - transient dissociative episodes
    - depersonalization/derealization
    - reliving experiences, either in the form of intrusive post-traumatic stress disorder symptoms or in the form of ruminative preoccupation
4. Alterations in self-perception, including:
    - sense of helplessness or paralysis of initiative
    - shame, guilt, and self-blame
    - sense of defilement or stigma
    - sense of complete difference from others (may include sense of specialness, utter aloneness, belief no other person can understand, or nonhuman identity)
5. Alterations in perception of perpetrator, including:
    - preoccupation with relationship with perpetrator (includes preoccupation with revenge)
    - unrealistic attribution of total power to perpetrator (caution: victim's assessment of power realities may be more realistic than clinician's)
    - idealization or paradoxical gratitude
    - sense of special or supernatural relationship
    - acceptance of belief system or rationalizations of perpetrator
6. Alterations in relations with others, including:
    - isolation and withdrawal
    - disruption in intimate relationships
    - repeated search for rescuer (may alternate with isolation and withdrawal)
    - persistent distrust
    - repeated failures of self-protection
7. Alterations in systems of meaning:
    - loss of sustaining faith
    - sense of hopelessness and despair

3.5 Etiological and risk factors

As noted above, even devastating events do not lead to PTSD in all individuals and there is variability in the extent to which exposure to trauma is associated with the subsequent development of PTSD. A growing body of research has documented a number of risk factors associated with the subsequent development of PTSD. Kaplan and Sadock (1998) report the predisposing vulnerability factors that appear to play primary roles in determining the development of PTSD include the presence of childhood trauma; family history of psychiatric disorder; borderline, paranoid, dependent, or antisocial personality disorder traits; inadequate support system; recent stressful life events; perception of an external locus of control and recent excessive alcohol intake.

3.5.1 Prior trauma, childhood abuse and revictimisation

Research (e.g. Byrne, Resnick, Kilpatrick, Best, & Saunders, 1999; Follette, Polusny, Bechtle, & Naugle, 1996; Messman & Long, 1996; Vrana & Lauterbach, 1994) strongly suggests that multiple exposures to trauma and re-victimisation are associated with more symptoms and higher rates of PTSD. Wolfe and Keane (1997) note that women are at increased risk of revictimisation across the lifespan than men. Moreover, Wyatt, Guthrie and Notgrass (1992) estimated that that between 25% and 40% of non-clinical samples of women have experienced sexual abuse before the age of 18 and that sexual revictimisation in adulthood is considered to be one effect of childhood sexual abuse. This is also supported by studies (e.g. Houskamp & Foy,1991; O'Keefe, 1998) that have found that clinical samples of battered women, show high rates of childhood physical abuse, childhood sexual abuse and marital rape in addition to the traumatic exposure of being battered by their intimate partners.

Childhood abuse, especially childhood sexual abuse has consistently been found to be a major risk factor of both revictimisation and PTSD symptomatology (Astin et al., 1995; Dutton et al., 1994; Herman, 1992). For example, Harvey and Herman (1992) assert childhood sexual abuse is a reliable predictor of heightened risk for adult victimisation such as rape,

domestic battery, sexual harassment and exploitation in pornography and prostitution. O'Keefe (1998) reported that among other predictors, childhood sexual abuse and childhood physical abuse increased the likelihood of current PTSD symptomatology in a sample of incarcerated battered women.

The cumulative effects of experiencing multiple traumatic events on PTSD symptomatology have also been documented with survivors of sexual abuse (e.g.Arata, 1999a, Arata, 1999b) ;survivors of firestorms (e.g. Koopman et al., 1994); and crime victims (Freedy, Resnick, Kilpatrick, Dansky & Tidwell, 1994) to name some. Thus, the multiplicity and chronicity of exposure to violence and abuse may be very great for some women in abusive relationships (Dutton et al., 1994) and highlights the need to assess for exposure to prior traumas when conducting research (Green, 1994). As Vogel and Marshall (2001) note, distinguishing different types of abuse appears to be important, given that research has shown that multiple traumas, severity of trauma, and revictimisation are associated with more symptoms and higher rates of PTSD.

3.5.2 Non-trauma risk factors

Other non-trauma variables may also effect PTSD symptom development and a variety of factors have been examined in the literature. Both ethnicity and SES have been related to increased risk of partner violence (Jasinski & Kaufman Kantor, 1997) and PTSD (Green, 1994). Vogel and Marshall (2001) note however, that often ethnicity and SES are confounded in research. In their study using a large sample of women in the community, and taking the confound of SES into account, no ethnic differences for rates or severity of PTSD symptoms as measured by the Crime-Related PTSD Scale (CR-PTSD; Saunders, Arata & Kilpatrick,1990) were found. The authors concluded that SES contributes more to women's vulnerability to abuse and stress symptoms than does ethnicity. Vogel and Marshall (2001) agree with Zuckerman (1990) and argue against over interpreting ethnic group differences. In light of these data, ethnicity is not analysed in the present study other than as a descriptive statistic.

In addition to these risk factors, a number of protective factors have also been proposed to attenuate the development PTSD. For example, social support has been theorised for a long time to buffer the deleterious effects of stress (Ellis, 1992; Wolfe & Kimerling, 1997). Wolfe and Kimerling note that gender and the type of trauma such as marital violence and sexual assault, can create obstacles for obtaining posttrauma support. For example, when the perpetrator of violence such as physical and sexual assault is a partner, a source of intimate support rapidly evolves into a threat. Furthermore, social and cultural pressures to maintain the integrity of the marriage and family structure can also erode social support. In addition, stigmatisation can occur in cases of sexual assault and domestic violence. Wolfe and Kimerling (1997) hold that these victims appear highly sensitive to implicit social schemas (e.g. rape and domestic violence myths) that convey responsibility on to the survivor which intensifies feelings of social detachment.

3.5.3 Severity of Trauma

The development of PTSD has consistently been linked to the level of exposure or level of severity and intensity of the traumatic experience (Foy,1992; Green, 1994; March, 1993). In a review of 19 studies March (1993) concluded that there is a dose-response relationship between stressor magnitude and outcome. Stressor magnitude was determined by factors such as life threat, physical injury, object loss, and grotesqueness.

Factors related to PTSD symptoms, such as level of exposure found in other trauma groups also translate to abused women (e.g. Follingstad, Brennan, Hause, Poled, & Turledge, 1991; Houskamp & Foy, 1991; Vogel & Marshall, 2001). For example, several studies (e.g. Astin, et al., 1993; Astin et al., 1995; Houskamp & Foy, 1991; Kemp et al., 1991; Vogel & Marshall, 2001) have found higher levels of PTSD symptomatology to be associated with exposure to higher levels of partner abuse or battering severity. Furthermore, Kemp, Rawlings and Green (1991) found that extent of abuse was not only positively related to the presence and degree of PTSD, but also to depression, anxiety and overall symptoms of distress.

Aspects of the domestic violence experience such as the duration of abusive relationship have also been shown to increase risk of PTSD symptoms (Kemp, et al., 1991). However, Vogel and Marshall (2001) note that duration may not be an adequate measure, suggesting that the impact of abuse would differ depending on the proportion of the relationship that violence occurred. Recency of abuse has also been examined by some authors such as O'Keefe (1998) who reported that the time elapsed since ending the abusive relationship was predictive of PTSD symptomatology. In addition, Astin and colleagues (1993) found that 43% of the variance in PTSD symptomatology was predicted by trauma exposure, recency of abuse, available social support, intercurrent life events, intrinsic religiosity and developmental stressors.

Extent of physical injury has also been related to PTSD symptom levels in abused women (Bernat, Ronfeldt, Calhoun & Arias,1998). However, Vogel and Marshall (2001) note that the relationship between injury and PTSD symptoms has not been consistent in a variety of trauma populations. Of the studies that have differentiated types of abuse into physical and psychological abuse, varying rates and severity of PTSD symptoms were found (Vogel & Marshall, 2001). Kemp and colleagues (1995) found fewer verbally abused than battered women met criteria for PTSD. Vitanza and colleagues (1995) found more PTSD symptoms among psychologically abused women who also sustained severe violence than those who reported moderate or no violence. Thompson and colleagues (1999) found that while physical abuse was associated with increased likelihood for experiencing PTSD, non-physical partner abuse was not significantly associated with PTSD. Level of exposure to domestic violence in the present study is operationalised as the frequency of physically and psychologically abusive behaviours as measured by the ABI.

3.5.4 Subjective predictors

Kaplan and Sadock (1998) report that although PTSD symptoms were originally thought to be directly proportional to the severity of the stressor, some empirical studies have shown otherwise, and more recent research has placed greater emphasis on a person's subjective response to trauma. How a stressful event is interpreted, the individual's selective meaning of the trauma, and the

individual's reaction to the traumatic event, is now considered to have a greater bearing on PTSD symptom levels than the objective severity or intensity of the traumatic event.

3.5.5 Peritraumatic Reactions

An individual's response during the impact phase of a stressor (peritraumatic) has received increasing attention by researchers (Shalev, 1996). Shalev notes that peritraumatic responses include: 1) observable behaviours or symptoms (e.g. stupor, agitation, conversion); 2) emotional or cognitive experiences (e.g. anxiety, panic, numbing, confusion); 3) mental processes or functions (e.g. defences). These symptoms, experiences and mental functions are often confounded. For example, dissociation is at the same time, an observable behaviour, an experience, and a form of defence against pain, distress, or humiliation.

Fear has been reported as a notable factor related to levels of PTSD symptomatology in many studies (e.g. Breslau, 1998; Dutton, Burghardt, et al., 1994, Kemp et al., 1995). For example, Kemp, Rawlings and Green (1991) found that self-reported subjective distress regarding the battery experience was positively correlated with presence and degree of PTSD, intrusion expression, anxiety and general psychopathology. With regard to subjective aspects of the stressor experience, Davidson & Foa (1991) hold that perceived life threat, perceived physical violence, experience of extreme fear and perceived helplessness, are the most prominent determinants of PTSD. Shalev (1996) notes that a central point is the extent to which particular peritraumatic reactions (e.g. dissociation, freezing/surrender, panic, fear) specifically predict prolonged distress.

3.5.6 Peritraumatic dissociation

More recently there has been a resurgence of interest in the phenomena of trauma related dissociation (Marmar, et al., 1997). Studies documenting heightened dissociability in PTSD (e.g. Spiegel, Hunt & Dondersine, 1988) and repeated reports of frequent dissociative reactions during stressful events (e.g. Cardena & Spiegel, 1993) jointly support the notion that dissociation may have

a specific role in the pathogenesis of PTSD (Shalev, 1996). Indeed, several researchers (e.g. Cardena & Spiegel, 1993; Holen, 1993; Koopman, et al., 1994; Marmar, Weiss, Schlenger, Fairbank, Jordan, Kulka & Hough, 1994) have suggested that peritraumatic dissociation is the most important predictor of the subsequent development of PTSD. For example, Marmar and colleagues (e.g. Marmar et al., 1994; Tichenor, Marmar, Weiss, Metzler, & Ronfeldt, 1996) have reported that peritraumatic dissociation was able to predict PTSD symptoms over and above levels of stress exposure and general dissociative tendencies in Vietnam veterans.

3.6 Chapter Summary

Today there is little question that some, although not all, women who have been abused by their partners experience after effects that make PTSD an appropriate diagnosis for them (Dutton & Goodman, 1994). Several factors have been suggested as to why some individuals develop chronic posttrauma disturbances and others do not. Dissociation at the time of the trauma, is of theoretical and practical interest given the growing body of empirical evidence suggesting that it is a central, if not the most important predictor of the subsequent development of PTSD and is discussed in the following chapter.

4.0 Chapter Overview

The role of dissociation has become increasingly important in understanding the response to exposure to traumatic stress (Marmar, et al., 1997). Research over the last century suggests quite clearly that there is a strong relationship between traumatic events and dissociative phenomena, and between dissociative phenomena and forms of trauma-related distress (van der Kolk & Fisler, 1995). Indeed, dissociation has been postulated to play a central role in the etiology and maintenance of PTSD (Bremner, et al., 1992; Gershuny & Thayer, 1999; Marmar, et al.,1994; van der Kolk & van der Hart, 1989). This chapter presents the multidimensional phenomena of dissociation and reviews recent empirical research that supports a trauma-dissociation link and the suggestion that dissociation at the time of trauma -peritraumatic dissociation- is the central pathogenic mechanism giving rise to PTSD (van der Kolk & Fisler, 1995). This is followed by a review of hypothesised mechanisms underlying dissociative phenomena. It appears that dissociation may be most harmful psychologically when it occurs during the traumatic event and/or for a long time afterward because it may impede emotional processing of the trauma and result in the development and exacerbation of forms of trauma-related distress (Gershuny & Thayer, 1999).

4.1 What is dissociation?

Simply, dissociation is a way of organising information (van der Kolk, et al., 1996). However, like domestic violence and trauma, dissociation is not easy to define, and there are several varying conceptualisations of this construct in the literature. Gershuny and Thayer (1999, p 637) have synthesised conceptualisations of dissociation posited by prominent researchers and theorists:

> Broadly, dissociation implies some kind of divided or parallel access to awareness (Spiegel, 1990) in which two or more mental processes or contents are not associated or integrated (Cardena, 1994; Classen, Koopman, & Spiegel, 1993), and awareness of one's emotions or thoughts are diminished and avoided (Foa & Hearst-Ikeda, 1996). Dissociation may be regarded as an altered state or fragmentation of consciousness (Marmar, Weiss, Metzler, & Deluchi, 1996; Steinberg, 1995) in which experience is compartmentalized (van der Kolk, et al., 1996)

Dissociation is usually described as a multidimensional construct consisting of a continuum of experiences, or interdependent but discrete factors (Gershuny and Thayer, 1999). The dissociative spectrum can range from normal dissociative experiences (e.g. periods of inattention during conversation; hypnosis) to pathological dissociative experiences (Gershuny & Thayer, 1999; Kaplan & Sadock, 1998; Koopman, et al., 1994). Indeed, Gershuny and Thayer (1999) note that 80% to 90% of individuals from non-clinical and clinical populations report experiencing some type of dissociative experience at least some of the time. For example, Steinberg (1995) notes that depersonalisation and derealisation are common occurrences before or after sleep, in periods of unusual fatigue or emotional stress, after drug or alcohol consumption or during meditation or trance. Non-pathological amnesia includes instances of childhood amnesia, sleep and dream amnesia, and hypnotic amnesia.

Gershuny and Thayer (1999) note that there is agreement among most researchers that some form of depersonalisation, derealisation and amnesia are part of the pathological dissociative spectrum, while there is less agreement about experiences such as identity confusion and alteration, emotional numbing, absorption, and disengagement or 'spacing out'. Depersonalisation refers to an alteration in the perception or experience of the self so that one feels detached from, and as if one is an outside observer of one's mental processes or body for example feeling like one is in a dream. Derealisation refers to an alteration in the perception or experience of the external world so that it seems strange or unreal, for example, people may seem unfamiliar or mechanical (APA, 1994, p 766). Identity confusion and identity alteration concern disturbances in personal identity. Identity confusion is an internal fragmentation of the self that is not ordinarily perceptible to others. Identity

alteration refers to external behavioural manifestation of personality transformation objectively perceptible to others. Amnesia is loss of memory and is often described as 'gaps' in memory ranging from minutes to years (Steinberg, 1997).

Dissociation can occur both at the time of a traumatic event and/or posttraumatically as a long term consequence of exposure to trauma (van der Kolk, 1996). van der Kolk, van der Hart and Marmar (1996) suggest that 'dissociation' refers to three distinct but related mental phenomena, which they describe as primary, secondary and tertiary dissociation. Primary dissociation refers to the inability to integrate the totality of what is happening into consciousness when confronted with overwhelming threat. Sensory and emotional elements of the event are not integrated onto memory and identity but remain isolated form ordinary consciousness. Primary dissociation is characteristic of PTSD symptoms of dissociated traumatic memories such as intrusive recollections, nightmares and flashbacks.

Secondary dissociation, which has also labelled 'peritraumatic dissociation' (Marmar et al., 1994) refers to dissociative experiences at the time of traumatic exposure, and is the focus of the present thesis. Peritraumatic dissociation often involves mental distancing manoeuvres that protect the individual from awareness of the full impact of the event. During a traumatic experience, dissociation effectively allows a person to observe the traumatic event as a spectator, to experience no, or only limited, pain or distress, puts individuals out of touch with the feelings and emotions related to the trauma, and has been likened to act as an anaesthetic (van der Kolk et al., 1996). Peritraumatic dissociation may take the form of altered time sense, with time being experienced as slowed down or rapidly accelerated; profound feelings of unreality that the event is occurring, or that the individual is the victim of the event; experiences of depersonalisation; out-of-body experiences; bewilderment, confusion, and disorientation; altered pain perception; altered body image or feelings of disconnection from one's body; tunnel vision; and other experiences reflecting immediate dissociative responses to trauma (van der Kolk, et al., 1996).

van der Kolk and colleagues refer to tertiary dissociation as the development of distinct ego states containing the traumatic experience and consist of complex identities with distinct cognitive, affective, and behavioural patterns. Multiple Personality Disorder, now called Dissociative Identity Disorder (DID), is illustrative of tertiary dissociation.

4.2 Trauma, dissociation and trauma related distress

Research suggests quite clearly that dissociative phenomena are closely linked to traumatic experiences (Gershuny & Thayer, 1999; van der Kolk & Fisler, 1995; van der Kolk, et al., 1996). Historically, the concept of trauma related dissociation was discussed over a century ago, in the work of Frederic Myers, Jean-Martin Charcot, Gilles de la Tourette, and Pierre Janet (Gershuny & Thayer,1999; van der Kolk & Fisler, 1995; Marmar et al., 1997). Janet was the first to systematically study the relationship between dissociation and trauma, which he described as the breakdown of identity; memory and consciousness associated with the intense arousal and emotions ('vehement emotions') occurring during traumatic exposure. Janet claimed that dissociation is the primary psychological process in which individuals react to overwhelming trauma (Gershuny & Thayer, 1999; van der Kolk & van der Hart, 1989) and theorised that it is the critical factor that determines eventual adaptation to traumatic experience (van der Kolk, et al., 1996).

Janet believed that dissociation is used as a means of coping with immediate overwhelming trauma, and that the trauma is not available to typical conscious representations as this intense arousal seems to interfere with proper information processing and the storage of information in narrative/explicit memory (van der Kolk, 1996). The result is that the traumatic experience cannot be processed and mastered over time, but rather persists as a 'fixed idea' that is split off from consciousness and distorts subsequent perceptions and behaviours (Gershuny & Thayer, 1999; Marmar et al., 1994, van der Kolk & Fisler, 1995; van der Kolk, et al., 1996). Furthermore, that individuals who continue to dissociate over time become emotionally constricted and develop various forms of psychopathology (van der Kolk, et al., 1996).

Recent research has rediscovered Janet's finding that dissociation is an integral aspect in individuals adaptation to trauma. Numerous studies have clearly demonstrated a strong association between trauma exposure and dissociative phenomena (Bremner & Brett,1997; Griffin, Resick, & Mechanic,1997; van der Kolk, et al., 1996); and dissociative phenomena and trauma related distress. For example, it has been found that individuals who are exposed to trauma are more likely to report dissociative phenomena than those who have not been exposed to trauma (e.g. Cardena & Spiegel, 1993). The trauma of childhood physical and sexual abuse in relation to adult dissociative phenomena has been extensively studied (Gershuny & Thayer, 1999). In both clinical and non-clincal samples, adults who reported childhood abuse have also reported higher levels of dissociation in adulthood than those who did not report childhood abuse. For example, Chu and Dill (1990) reported that psychiatric patients with a history of childhood abuse reported higher levels of dissociative symptoms on the Dissociative Experiences Scale (DES; Bernstein & Putnam,1986) than those without histories of childhood abuse. Similarly, Saxe and colleagues (1993) found that patients with high (over 25) DES scores all reported childhood histories of sexual abuse, physical abuse or witnessing domestic violence. Irwin (1994) also found that familial loss in childhood, intrafamilial and extrafamilial sexual abuse were the main predictors of dissociation. Draijer and Langeland (1999) note the prospective research of children by Putnam, Helmers, Horowitz, and Trickett (1995). In this study, it was found that, sexually abused girls had significantly higher dissociation levels than non-abused control subjects both on initial assessment and at one-year follow up. Gershuny and Thayer (1999) note however, that family pathology may account for the relationship between childhood abuse and adult dissociation, and thus needs further empirical investigation.

In addition to the trauma of childhood abuse, high levels of dissociation have been reported during or in the aftermath of a variety of other traumatic events, including holocaust survivors (e.g. Yehuda, et al., 1996); witnesses of trauma (e.g. Weiss, Marmar, Metzler & Ronfeldt, 1995); natural disaster (Koopman, et al., 1994); traumatic injury (e.g. Shalev, et al., 1996); motor vehicle accident victims (e.g. Harvey & Bryant, 1998), rape and sexual assault victims (e.g.

Dancu, Riggs, Hearst-Ikeda, Shoyer, & Foa, 1996) to name some. Dissociative phenomena has also been reported in women who have experienced the trauma domestic violence (e.g. Dutton, 1992a; 1992b; Rafeedie, 1997; Herman, 1992; Walker, 2000).

Further support for a trauma-dissociation link comes from the finding that individuals who report higher levels of dissociative phenomena also report higher levels of trauma related distress. For example, individuals who are diagnosed with PTSD tend to report higher levels of dissociative phenomena during and after the trauma than those not diagnosed with PTSD (e.g. Bremner et al., 1992; Carlson & Rosser-Hogan,1991; Marmar, et al., 1994). For example, several authors have noted significantly higher levels of dissociation in Vietnam combat veterans with PTSD when compared with combat veterans without PTSD (Bremner, et al., 1992). Carlier, and colleagues (1996) found that police officers with PTSD, exhibited significantly more dissociative symptoms than police officers without PTSD symptoms. Dancu and colleagues (1996) has also reported dissociation related to PTSD diagnosis in nonsexual assault victims.

Dissociative phenomena has also been linked to other forms of trauma related distress. For example, Saxe and colleagues (1993) found that a 'high dissociation group' met diagnostic criteria for disorders including PTSD, dissociative disorders, borderline personality disorder and somatisation disorder. A strong relationship has also been found among trauma, dissociation and personality disturbances such as Borderline Personality Disorder and Dissociative Identity Disorder (Gershuny & Thayer, 1999; Marmar, et al., 1997). Indeed, Maldonado and Spiegel (1998) note the similarities among PTSD, borderline personality disorder, and dissociative identity disorder. All three disorders are always (in the case of PTSD) or most often (in the case of BPD and DID) the result of intense trauma, particularly childhood abuse. In all three disorders, individuals find themselves powerless and violated; and the frequent and sometimes disabling use of dissociative defences is also common sequelae. Maldonado and Spiegel further note, that the three disorders may be seen as a triad in a continuum of psychiatric sequelae to intense trauma.

Further support for a trauma dissociation link comes from research (e.g. Spiegel, et al., 1988) examining hypnotic phenomena, which is considered a structured and controlled form of dissociation, trauma, and trauma-related distress (Griffin, et al.,1997; Kaplan & Sadock,1998). For example, Stutman and Bliss (1985) reported that veterans who had high levels of PTSD symptoms were more hypnotizable than veterans who were low in PTSD symptoms. Similarly, Vietnam combat veterans with PTSD were reported by Spiegel, Hunt, and Dondershine (1988) to have higher hypnotisability scores than both the psychopathological (patients with generalised anxiety disorder, affective disorders and schizophrenia) and normal controls. In addition, Putnam, and colleagues (1995) found a found a positive association of hypnotisability and clinical dissociation in trauma victims but not in control subjects. Hilgard (1970-cited in Spiegel & Cardena, 1991) reported that highly hypnotizable students reported more frequent histories of childhood punishment than their low-hypnotizability peers did. There is also evidence of high levels of hypnotic capacity present in the dissociative disorders, and the therapeutic use of hypnosis in the treatment of many dissociative symptoms, which lends support to the assumption that hypnosis and dissociation share an underlying process (Maldonado, & Spiegel, 1998).

4.3 Peritraumatic Dissociation

As noted, one aspect of dissociation involves dissociative experiences at the time of the traumatic even, named secondary dissociation or peritraumatic dissociation. Although reports of peritraumatic dissociation date back to nearly a century ago, the systematic investigation of this phenomena is only fairly recent. Investigations using a variety of trauma populations have shown that peritraumatic dissociation may be the most important long term predictor for the ultimate development of PTSD (e.g. Bremner et al., 1992; Holen,1993; van der Kolk & Fisler, 1995; Marmar, et al., 1994).

For example, Holen (1993) in a long-term prospective study of survivors of a North Sea oil-rig disaster found that the level of reported dissociation during the trauma was a strong predictor of subsequent PTSD. Similarly, Carlson and

Rosser-Hogan (1991) found a strong relationship among trauma severity, dissociative symptoms, and posttraumatic stress in Cambodian refugees. Koopman, Classen and Spiegel (1994) found dissociative symptoms at the time of the Oakland Hills firestorm was occurring, more strongly predicted subsequent posttraumatic stress symptoms than did anxiety and subjective experience of loss of personal autonomy, seven months later. Bremner and colleagues (1992) in a sample of Vietnam veterans, found that those with PTSD reported having experienced higher levels of dissociative symptoms during combat than veterans who did not develop PTSD. Dunmore, Clark and Ehlers (1999) found cognitive factors including detachment during physical assault, were associated with the onset of PTSD. Furthermore, that the relationship between the cognitive variables and PTSD remained significant when variations in perceived and objective assault severity were statistically controlled.

4.4 Peritraumatic Dissociative Experiences Questionairre (PDEQ)

A number of assessments, both self report and clinical interviews have been developed to measure dissociative phenomena. On the basis of the research findings that point to an important vulnerability role for peritraumatic dissociation as a risk factor for subsequent PTSD, Marmar and colleagues (1997) developed the Peritraumatic Dissociative Experiences Questionnaire (PDEQ). This measure, used in the present research, addresses dissociative experiences at the time of the traumatic event such as: moments of losing track or blanking out; finding the self action on 'automatic pilot'; sense of time changing during the event; the event's seeming unreal, as in a dream or play; feeling as if floating above the scene; feeling disconnected from the body or experiencing body distortion; confusing what was happening to the self and others; not being aware of things happening during the event that normally would have been noticed; and not feeling pain associated with physical injury.

A series of investigations were undertaken using this measure of peritraumatic dissociation. In the first study (Marmar et al., 1994) found that the total score on the PDEQ was strongly associated with level of posttraumatic stress symptoms, level of stress exposure and general dissociative tendencies in a sample of 251 male Vietnam veterans. Total PDEQ score was also associated with general

psychopathology as measured by MMPI-II (Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1991). Peritraumatic dissociation was also found to account for PTSD case determination over and above contributions of level of war-zone stress exposure and general dissociative tendencies.

The first replication study of the PDEQ (Marmar, Weiss, Metzler, Ronfeldt & Foreman,1996) measured several predictors of current symptomatic distress including level of critical incident exposure, social support, psychological traits, locus of control, general dissociative tendencies and peritraumatic dissociation in emergency services personnel. The two dissociative variables, total score on the DES and total score on the PDEQ, were strongly predictive of symptomatic response, even after controlling for exposure, adjustment, and the three other predictors. Furthermore, Marmar and colleagues reported that participants that reported among other immediate responses to trauma, greater levels of depersonalisation, derealisation, altered time sense and body image disturbances at the time of critical incident occurrence, were those that were more likely to be in the greater distress group approximately one and a half to four years later.

The second replication study (Tichenor, et al., 1996) investigated peritraumatic dissociation and posttraumatic stress in female Vietnam theatre veterans. Total PDEQ scores were found to predict posttraumatic stress symptoms over and above the level of stress exposure and general dissociative tendencies. The PDEQ total score was also found to be positively correlated with level of stress exposure and general dissociative tendencies as measured by the DES. Using a self-report version of the PDEQ, Marmar and colleagues (1997) examined peritraumatic dissociation and stress response in participants exposed to the 1994 Los Angeles are Northridge earthquake. Again, peritraumatic dissociation was predictive of current posttraumatic stress response symptoms, after controlling for the level of trauma exposure.

Independent studies using the PDEQ have also provided increasing support for peritraumatic dissociation as a central predictor of PTSD. For example, in a prospective study Shalev and colleagues (1996) reported that PDEQ ratings at

1 week predicted stress symptomatology at 5 months, over and above exposure levels, social support, and Impact of Event Scale scores in the first week. Shalev and colleagues assert that the association between peritraumatic dissociation and PTSD in their study was mainly direct which gives support to the assumption of a unique and specific link between dissociation and PTSD. Marmar and colleagues (1997) have noted that this prospective study is noteworthy in that it provides important validity of retrospective ratings of peritraumatic dissociation.

4.5 Mechanisms of Dissociation

From the studies reviewed above, it is clear that there is a strong relationship between traumatic events and peritraumatic dissociative phenomena, and between dissociative phenomena and PTSD. These findings have raised questions about the mechanisms underlying peritraumatic dissociation. As previously stated, observations concerning the psychological factors underlying trauma related dissociation date back to the work of Janet and others at the turn of the century. As noted by, Marmar, Weiss, & Metzler (1997), Janet (1889) proposed that trauma related dissociation occurred in individuals with a fundamental constitutional defect in psychological functioning (la misére psychologique). That healthy individuals have sufficient psychological energy to bind together their mental experiences into an integrated synthetic whole under the control of a single personal self with access to conscious experience.

Contemporary research (e.g. Marmar, 1997; Marmar, et al.,1997; Shalev et al., 1996) concerning peritraumatic dissociation has largely focused on individual differences in the threshold for dissociation. Shalev and colleagues (1996) postulate that dissociation may result from a repetition, during a current trauma, of a defensive operation, acquired during previous traumatisations. It has been hypothesised that experiencing previous trauma, especially childhood or adolescent trauma, may lower an individuals threshold for dissociation at the time of later trauma (Chu & Dill, 1990; Draijer & Langeland,1999; Marmar, et al.,1997). Support for this hypothesis is provided by studies such as Draijer and Langeland (1999) who have reported that the highest dissociation levels were found in patients reporting cumulative sexual trauma or both sexual and

physical abuse. Furthermore, a strong relationship between the amount of trauma experienced and the severity of both traumatic stress response and dissociative reactions was found in a study of Cambodian refugees (Carlson & Rosser-Hogan, 1991).

It has also been hypothesised that the threshold for peritraumatic dissociation or dissociative vulnerability may be a hereditable trait that is correlated with hypnotisability (Griffin, et al., 1997; Spiegel, et al.,1988; Marmar et al., 1994; Marmar, et al.,1997; Putnam et al., 1995). Marmar and colleagues (1997) contend that the studies on hypnotisability, trauma, and dissociation suggest that individuals who are constitutionally predisposed to be highly hypnotisable, and, who experience trauma early in life are those with greatest vulnerability to subsequent dissociation at the time of exposure to traumatic events during adulthood. This is supported by Putnam and colleagues (1995) who found an association between hypnotisability and clinical dissociation in traumatised participants but not in control participants.

Another line of investigation concerning the underlying mechanisms of dissociation has focused on the link between dissociation and panic symptoms or overwhelming physiological arousal (Marmar, et al., 1997; van der Kolk, et al., 1996; van der Kolk, 1996). It is proposed that panic-level states of anxious arousal may trigger dissociation, and that for some individuals; peritraumatic dissociation may be mediated by high levels of anxiety during trauma (Marmar, et al., 1997; van der Kolk, 1996). Southwick and colleagues (1993) used yohimbine challenges to simulate panic symptoms, and found that individuals with PTSD, experienced dissociative flashbacks in the context of these high-threat arousal states. In addition, Krystal and colleagues (1991) have highlighted that patients with panic disorder often report dissociation during the peak of their panic attacks. Furthermore, Moleman, van der Hart and van der Kolk (1992) reported that women undergoing extremely complicated childbirth, experienced a progression from initial panic symptoms to dissociation, and that the majority of the women subsequently developed full-blown PTSD.

Bernat and colleagues (1998) assessed peritraumatic reactions including negative emotional reactions, panic symptoms and dissociation and found that they all made significant contributions in the prediction of PTSD symptoms above and beyond vulnerability factors and objective stressor dimensions. The authors suggest that peritraumatic fear and attendant physiological arousal may lead to cognitive disruption in the form of peritraumatic dissociation and subsequent PTSD. They note that this is consistent with Janet's suggestion that dissociation in the context of trauma may result from a state of physiological hyperarousal (or "vehement emotions"), which leads to dissociative memory disturbance (Bernat, et al.,1998). The authors do point out however; that it remains unclear wither dissociation is an active coping strategy for dealing with intense anxiety or merely an epiphenomenon of physiological arousal, such as panic related hyperventilation.

Marmar, Weiss, Metzler and Delucchi (1996) conducted a study to identify individual characteristics of emergency services personnel related to acute dissociative responses at the time of critical incident exposure. They reported that participants that had clinically meaningful levels of peritraumatic dissociation were younger; had higher levels of exposure during the critical incident; had greater subjective perceived threat at the time of critical incident; poorer general psychological adjustment; poorer identity formation; lower levels of ambition and prudence (defined by the Hogan Personality Inventory; Hogan & Hogan, 1992) greater external locus of control; and greater use of escape/avoidance and emotional self-control styles of coping. Griffin, Resick and Mechanic (1997) also found a strong relationship between peritraumatic dissociation and avoidance. Marmar and colleagues (1997) suggest that in order to disentangle the cause and effect relationship in the trauma-dissociation linkage, further studies, especially prospective studies are required and it is as yet undetermined whether peritraumatic and general dissociative tendencies are characteristics that are inherited or learned early in life.

Several investigators have also speculated about the function that dissociation serves in response to trauma. Some authors have theorised that during times of trauma, dissociation may serve as a means of psychological escape when

physical escape is not possible (e.g. Spiegel et al.,1988; van der Kolk, 1996). For example, van der Kolk (1996) has hypothesised that dissociation may be mobilised as a reaction to trauma to protect the individual from conscious awareness of the full impact of what is happening. In accordance with Janet, Gershuny & Thayer (1999) and others (e.g. Koopman, et al., 1994) postulate that while dissociation may be adaptive during and immediately following a traumatic event, the chronic use of dissociative mechanisms may lead to a failure to process the trauma cognitively and emotionally and may therefore result in more severe psychopathology. This in turn maintains and perpetuates posttraumatic stress (Foa & Hearst-Ikeda, 1996). Furthermore, continued use of dissociation may also result in an almost complete sense of disconnection from others (van der Kolk, 1996; van der Kolk, et al., 1996). It appears that PTSD reflects an impairment in emotional processing of a traumatic experience, peritraumatic dissociation hinders successful emotional processing (Foa & Rothbaum, 1998).

Gershuny and Thayer (1999) note that to test whether the long-term use of dissociation is psychologically harmful, it would be important to investigate and measure dissociation longitudinally. To date however, most studies assess peritraumatic dissociation using retrospective reports, or at a single time after the traumatic event (Gershuny & Thayer, 1999). Moreover, as Shalev and colleagues (1996, p. 224) state "regardless of explanatory models, the clinician should be aware that reports of peritraumatic dissociation in recent trauma survivors can help assess the risk of developing severe psychopathology".

4.6 Chapter Summary

Collectively, the studies reviewed above strongly indicate that individuals who have experienced a traumatic event are more likely to experience higher levels of dissociation than individuals who have not experienced such an event. Furthermore, that individuals that dissociate at the time of the traumatic experience are more likely to experience higher levels of trauma-related distress. Retrospective reports of dissociation at the time of a trauma have been found to be able to predict the subsequent development of PTSD (Bremner, et al.; 1992, Marmar, et al., 1994; Shalev, 1996) over and above

other predictive factors (e.g. event severity) recognised in the literature. This finding has also been relatively consistent across a variety of trauma populations. However, little research has been located that has directly examined peritraumatic dissociation and its association with PTSD in women who have experienced physical, sexual and psychological abuse by their partners and therefore forms the central aim of this thesis. Research hypotheses related to the associations between the trauma of partner abuse, peritraumatic dissociation and PTSD are stated in the following chapter.

5.0 Chapter Overview

There are two main objectives of the present study. The first objective is to document levels of PTSD symptoms reported by a community sample of women who have experienced physical and psychological abuse by their intimate partners. The second objective is to explore the link between dissociation at the time of the abusive relationship and self reported symptoms of PTSD. In addition to these two primary objectives, a number of other predictions are made based on the findings of previous research.

5.1 Research Hypotheses

Hypothesis 1: That a significant number of women in the sample will report exposure to multiple traumatic events over their lifetime, as measured by the TSS, including the possibility of experiencing more than one abusive relationship.

Hypothesis 2: That women in the sample will report significant levels of peritraumatic dissociation as measured by the PDEQ during the time of the abusive relationship

Hypothesis 3: That a significant proportion of the sample will display symptoms of PTSD, as measured by the IES-R, M-PSS-SR and CR-PTSD.

Hypothesis 4: That a significant proportion of the sample will also display multiplicity of symptoms of psychological distress, particularly anxiety, depression, somatisation and other symptoms as measured by the Global Severity Index (GSI), and the nine subscales of the SCL-90-R.

Hypothesis 5: That PTSD symptoms (IES-R, M-PSS-SR, CR-PTSD) will be positively correlated with general psychopathology (GSI).

Hypothesis 6: That cumulative trauma, as measured by the number of traumatic events exposed to over respondent's lifetime (TSS), will be positively correlated with levels of self-reported PTSD symptoms

Hypothesis 7: That level of exposure/frequency of abuse as measured by ABI Physical and Psychological subscales will be positively related to levels of self-reported peritraumatic dissociation (PDEQ) at the time of the abusive relationship.

Hypothesis 8: That level of exposure/frequency of abuse as measured by ABI Physical and Psychological subscales will be associated with increased levels of PTSD symptoms

Hypothesis 9: That higher frequency of abuse as measured by ABI Physical and Psychological subscales will be associated with higher levels of general psychopathology (GSI).

Hypothesis 10: That length of the abusive relationship and time elapsed since separating from the abusive relationship will be positively and negatively associated with levels of PTSD symptoms respectively

Hypothesis 11: That greater levels of peritraumatic dissociation during the abusive relationship (PDEQ), will be positively associated with higher levels of traumatic stress symptoms.

6.0 Chapter Overview

The present study utilised a questionnaire method of survey research design. This was chosen as the research goals were exploratory in nature and for the practicalities of economical data collection and relatively rapid feedback. The questionnaire method also has the advantage of being completed at the respondent's convenience, avoids interviewer biases and is anonymous, making this an appropriate method for collecting sensitive information (Goddard & Villanova, 1996; Schweigert, 1994). Descriptions of the methods used to test the research hypotheses of the present study including details of the sample selection, research procedure, and questionnaire development are presented in the following sections of this chapter.

6.1 Sample

The current sample was recruited through the Domestic Violence Centre (DVC) organisation. The DVC is an Incorporated Society that provides several services to families affected by family violence in the Auckland region. Services include 24-hour crisisline and callout advocacy; victim casework, advocacy, and professional and public education. A formal protocol with the Auckland City Policing District ensures that the crisisline is contacted every time an arrest is made for a family violence-related offence. Using DVC records of clients, from the 24-hour crisisline and callout advocacy service, a list of potential participants was generated, spanning a one year time period. Client records where information such as name, address or with other essential details missing were not included in this list. Invitations to participate in the study were sent to women, where an arrest was made for a family violence related offence or where an advocate callout was made and a callout report lodged. Due to practical difficulties and time constraints, it was unknown whether the family violence incident was perpetrated by a partner or by another family member. However, DVC statistics estimated that approximately 80% of the sample pool would be partner-perpetrated violence. The final list of potential participants numbered 500 and invitations to participate in the study were sent in 3 blocks,

over a two month period, 400 of which were likely to be partner-perpetrated violence.

The invitation to participate in the study included a covering letter from the DVC informing women about the study and inviting them to participate, an information sheet about the study, and a domestic violence wallet card with essential crisis and emergency numbers. Examples of these are given in appendices A and B. Women were asked to phone a free-call number if they wished to participate in the research. Several invitations (71), to participate in the research were returned with untraceable addresses. One was returned as the client was deceased. A further five respondents were eliminated due to the family violence being perpetrated by a family member other than a partner. Two more potential participants were eliminated because they were still in a relationship with the perpetrator of abuse and it was therefore considered unsafe for them to participate in the research. Of the remaining 421 invitations sent to potential participants, 33 women volunteered and met criteria to participate in the study. This response rate was disappointing, but is consistent with international studies utilising similar samples (e.g. Dutton et al., 1994; Houskamp & Foy, 1991; Shepard, 1992). Of the 33 people that volunteered to participate in the study and were mailed questionnaires, 22 responded, yielding a response rate of 67%.

6.2 Procedure

Data collection occurred over a five month period by way of a mailed single self-report questionnaire. The research pack posted to participants, included a covering letter from the researcher, an information sheet explaining the purposes of the study and the rights of the respondents, a consent form, a self-report questionnaire, a resource information sheet giving contact numbers of pertinent services, and a freepost return envelope addressed to the researcher and to be returned through public post. The information sheet used was identical to the original information sheet sent with the invitation to participate. Examples of letters, consent forms, and resource information sheets are given in appendices C to E. Participants were also given the choice of having a

facilitator present to help and support women fill out the research questionnaire, although this was not requested by any participants.

Four to six weeks after the initial posting of the research pack, a follow-up letter was sent to 26 participants who had not returned their questionnaire. Another 6 respondents sent back their questionnaires, making a total of 16 returned questionnaires. A second follow-up letter, and telephone contact where possible, were made, after another 4 weeks. Four respondents requested another questionnaire to be sent due to misplacement and one follow-up letter was returned with an untraceable address. A further 6 questionnaires were received, making a total of 22 valid questionnaires for data analysis. To ensure confidentiality and anonymity, questionnaires containing the raw data, were coded rather than using names. Written consent was given on a separate form and was held separately to the raw data. The survey was approved by the Massey University Human Ethics Committee and was conducted within the guidelines of the New Zealand Psychological Society.

6.3 Questionnaire

The first section of the questionnaire sought demographic information, information regarding attributes of the abusive relationship and the respondent's history of abuse. The second section included six psychometric measures. The last section, of the questionnaire was an optional section where respondents were given the opportunity to write comments about how they evaluated the services provided by the DVC. Examples of the socio-demographic questionnaire and measures used are detailed in appendices F to L.

Measurement instruments were chosen on the basis of their psychometric properties, length, and their use in previous research examining, either trauma, dissociation, or domestic violence (e.g. Kemp, et al., 1991; Marmar et al., 1994; Shepard & Campbell, 1992). Most of the measures, and the combination of measures generally, have been used in similar research concerned with PTSD and women who have experienced domestic violence (e.g. Astin, et al., 1993; Dutton, Hohnecker, et al., 1994; Thompson, et al.,1999).

To summarise, the outcome measures in the present study included two PTSD symptom specific instruments, the Impact of Event Scale-Revised (IES-R; Weiss & Marmar,1997) and the Modified Posttraumatic Symptom Scale-Self Report (M-PSS-SR; Falsetti, Resnick, Resick, & Kilpatrick, 1993). The Crime Related PTSD Scale (CR-PTSD; Saunders, et al.,1990) derived from the Symptom Checklist-90-Revised (SCL-90-R; Derogatis, 1994) was also used as a dichotomous measure of posttraumatic stress response. General psychological symptoms were examined using the global scale of the SCL-90-R, the Global Severity Index (GSI). The nine subscales of the SCL-90-R were also used to examine psychological symptoms such as depression and anxiety. Predictor measures included the Abusive Behavior Inventory (ABI; Shepard & Campbell, 1992), a measure of physical and psychological abuse, and the Peritraumatic Dissociative Experiences Questionnaire (PDEQ; Marmar, et al., 1997), a measure of dissociation at the time of trauma. The Traumatic Stress Schedule (TSS; Norris, 1990) was also used to assess for exposure to prior trauma.

6.3.1 Sociodemographic and relationship information:

A sociodemographic questionnaire was developed by the author to gather general demographic information and information regarding attributes of the abusive relationship. General items such as participant's age, ethnic group, educational level, employment status and annual income were recorded. In addition, one item asked about whether the respondent was born in New Zealand, and another asked whether English was their first language. The questionnaire also asked a number of specific questions regarding some of the characteristics of the abusive relationship and the respondents' history of abuse. Information was firstly sought about the number of abusive relationships the respondent had been in. If respondents had been in more than one abusive relationship, they were asked to answer the remainder of the questions with regard to the most recent abusive relationship.

The former abusive partner's gender, ethnic group and the type of relationship was recorded. Other items asked about: the length of the relationship; the time elapsed since permanently separating; whether the former abusive partner had

been abusive since separating; and if a protection order was taken out on their former partner. Additional items recorded whether other people were abusive towards the respondent at the time of the abusive relationship, whether any children were in the respondents care at that time, whether the former abusive partner was abusive towards these children, and whether the children witnessed or heard any violence. Respondents were also asked to indicate whether their father/primary male caregiver was abusive towards their mother/female caregiver when the respondent was growing up.

Two questions were asked on behalf of the DVC. When did the respondent first have contact with the DVC, and how many times had they had contact. In addition, Section 7 of the questionnaire was an optional section where respondents could write comments about how they evaluated the services provided by DVC and is detailed in appendix M.

6.3.2 Domestic Violence

The Abusive Behavior Inventory (ABI; Shepard & Campbell,1992) was used to assess the presence and frequency of physical and psychological abuse inflicted upon the respondent by her former partner. Respondents were asked to estimate the frequency of 30 different abusive behaviours during the time they were in a relationship with their partner (changed from a 6-month period in the original study), using a 5-point Likert scale. (1=never, 2= rarely, 3=occasionally, 4= frequently, 5= very frequently). Each item in the scale assesses some aspect of a partner's behaviour considered *physically abusive* (e.g. slapped, hit or punched you; pushed, grabbed, or shoved you; choked or strangled you) or *psychologically abusive* (e.g. made you do something humiliating; said things to scare you; tried to keep you from doing something you wanted to do; called you names and/or criticised you). The wording of the ABI taps the experience of abuse rather than any legal definitions of specific crimes (Neufeld, McNamara, & Ertl, 1999).

The ABI includes separate scales to assess physical and non-physical abuse. Summed frequency ratings of the physical abuse items are averaged to provide a physical abuse score. These scores reflect the average frequency of these

behaviours, ranging from 1- *no physical abuse* to 5- *very frequent physical abuse.* A psychological abuse score, using the remaining items, is gained in the same way. Shepard and Campbell (1992) demonstrated that the ABI was able to differentiate between men and women known to be in abusive relationships and those not in abusive relationships. They reported alpha coefficients ranging from .70 to .92; and criterion-related, construct and factor validity, suggesting a reliable and valid questionnaire. In the current study the Cronbach alpha coefficient was .91 for ABI psychological abuse subscale, and .71 for ABI physical abuse subscale.

Some modifications to the ABI were necessary for the purposes of this study. Shepard and Campbell (1992) recommended that item 21 'spanked you' be eliminated in future versions of the scale due to its negative correlation with both subscales and low frequency of occurrence in the original sample (93% of participants reported having never been spanked). Additionally, it was thought that this particular item would have little applicability to the New Zealand context, where colloquially adult 'spanking' is often associated with sado-masochistic sexual practice. The present study modified item 21 from 'spanked you' to 'threatened you with his/her fists' in the same way as a New Zealand study exploring Maori family violence in Aotearoa (Balzer, Haimona, Henare & Matchitt,1997) did. Effectively this meant that the scale consisted of 21 psychologically abusive behaviours and 9 physically abusive behaviours.

A limitation of the ABI, like the Conflict Tactics Scale (CTS; Straus,1979; Straus, et al., 1996), is that it does not address issues around the outcomes of violence (Shepard & Campbell, 1992). The authors suggest that issues, such as the extent to which injuries were received and medical attention required, should be noted in addition to using the questionnaire. Therefore two additional items were used to assess this. The first item sought information about whether medical attention or hospitalisation was required as a result of abuse by a former partner. The second item asked whether their former partner prevented them from gaining medical attention.

As the ABI is a relatively brief questionnaire, and as discussed in Chapter Two, a wide range of behaviours can be considered abusive, the final two questions were added as 'catchall' questions, asking respondents about any other physically or psychologically abusive behaviours. These four items were not scored with the main measure but were used to gain qualitative information.

6.3.3 Peritraumatic Dissociation

The Peritraumatic Dissociative Experiences Questionnaire (PDEQ: Marmar, et al.,1997) was used to assess retrospective reports of dissociation at the time of the abusive relationship. The PDEQ was originally developed as a nine-item measure in both rater and self-report formats. The more recent 10-item, self-report version was used for the purposes of this study. Each item of the PDEQ addresses dissociative experiences at the time the traumatic event was taking place. Items include: (1) moments of losing track or blanking out; (2) finding the self acting on "automatic pilot"; (3) a sense of time changing during the event; (4) the event seeming unreal, as in a dream or play; (5) feeling as if floating above the scene; (6) feeling disconnected from body or body distortion; (7) confusion as to what was happening to the self and others; (8) not being aware of things that happened during the event that normally would have been noticed; (9) confusion and difficulty making sense of what was happening; and (10) disoriented, uncertain about where or what time it was.

Respondents were asked to indicate the extent to which each statement was true for them using a 5 point Likert scale ranging from 1= *not at all true* to 5= *extremely true* during the time they were in an abusive relationship. The scale is scored as the mean across the ten items, yielding a single Total score ranging from 1 to 5. The Total PDEQ score ranges from 10 to 50. Across several validation studies (Marmar, et al.,1994; Weiss, et al., 1995; Marmar, Weiss, Metzler, Ronfeldt, et al.,1996; Tichenor, et al.,1996) the PDEQ has consistently shown strong psychometric properties. Marmar and colleagues (1997) have reported that the scores on the PDEQ are stable across time, item-to-scale correlations ranged from.41 to.56, and high internal consistency (Chronbach's α =.80). Bernat and colleagues (1998) found high internal consistency (Chronbach's α = .88) in their non-clinical sample of college

students. Shalev, Peri, Canetti & Schreiber (1996) reported item-to-scale correlations ranging from .31 to .78 and a Chronbach's alpha of .79 in their sample of injured trauma survivors. Internal consistency for this sample was high, (Chonbach's α = .90).

In addition, Marmar, Weiss and Metzler (1997) report that the PDEQ was strongly associated with measures of traumatic stress response, strongly associated with a measure of general dissociative tendencies, strongly associated with level of stress exposure, and unassociated with measures of general psychopathology, showing support for the convergent, discriminant, and predictive validity of the PDEQ.

6.3.4 Other Traumatic Events

A consistent finding in trauma research is that a high percentage of people experience one or more traumatic events in their lifetime (Norris,1992; Vrana & Lauterbach, 1994). It was therefore important for the present study to assess and control for exposure to other traumatic events beyond the experience of domestic violence. An expanded version of The Traumatic Stress Schedule (TSS; Norris, 1990,1992) developed by Flett and colleagues (in press) was used to collect lifetime exposure to a range of traumatic events. Respondents were asked to indicate whether they had experienced twelve different traumatic events including: combat; child sexual assault; adult sexual assault; domestic assault; other physical assault; robbery or hold-up; motor vehicle accident; other accident resulting in injury; disaster experience; and being forced to leave home or take other precautions because of natural disaster. An additional, thirteenth item asked the respondent whether they have experienced any other event which they felt was shocking, terrifying or otherwise traumatic, including any event which they found too difficult to name or talk about. The number of events experienced by the respondent was summed to provide a trauma exposure score.

6.3.5 Posttraumatic Stress Disorder

Several authors (e.g. Briere, 1997; Watson,1990; Norris & Riad, 1997) have commentated on the wide array of psychometric instruments available to

measure posttraumatic stress symptomatology. Several issues need to be considered in the process of selecting PTSD instruments including whether: 1) contents reflect contemporary DSM criteria; 2) well documented and substantial reliability and concurrent validity against current DSM criteria; 3) the presence of dichotomous statements on the presence/absence of the disorder and each of its DSM criteria; 4) continuous measures of the severity and/or frequency of the disorder and each of its symptoms; 5) simple administration; 6) suitable psychometric properties; and 7) economical (Watson, 1990; Watson, Juba, Manifold, Kucala, & Anderson, 1991).

In addition to these issues, further considerations were made in selecting PTSD instruments for the present study. Firstly, the instrument needed to be brief, given the length of the questionnaire overall. Secondly, the instrument needed to distinguish between DSM-IV clusters with the provision of subscales. Lastly, that the instrument has been reliably used in samples of abused women. No one available instrument displays all these desired attributes. In agreement with standard measurement theory, where having only a single measurement of a construct is held to be a far less reliable estimate of that construct than several sources of measurement (Briere,1997), three instruments were selected to examine PTSD symptomatology in order to make more confident inferences.

6.3.6 Impact of Event Scale-Revised (IES-R)

The Impact of Event Scale-Revised (Weiss & Marmar,1997) was used to give an assessment of the degree of PTSD symptoms over the past week in relation to the abusive relationship. The original Impact of Event Scale (IES, Horowitz, Wilner, & Alvarez, 1979) has been widely used and examined extensively on diverse populations, including abused women and rape victims (e.g. Astin, et al.,1993; Dutton, Hohnecker, et al.,1994; Houskamp & Foy,1991). Although the IES provides an overall IES score and subscale scores measuring intrusive and avoidant symptomatology, it has no subscale for the PTSD cluster of hyperarousal symptoms. In response, Weiss and Marmar (1997) developed a revised version of the scale, which includes this cluster of symptoms.

The IES-R contains six new hyperarousal items intended to assess the following domains: anger and irritability; jumpiness and exaggerated startle response; trouble concentrating; psychophysiological arousal upon exposure to reminders; and hypervigilance. In addition, an intrusion item to parallel DSM-IV criteria was also added to tap the dissociative-like re-experiencing captured in true flashback-like experiences (Weiss & Marmar, 1997). Only one modification to the original items was made by the authors. This was a change in the item "I had trouble falling asleep or staying asleep" from its double–barrelled status into two separate items. "I had trouble staying asleep" which continues to represent the original item in the Intrusion subscale, and, "I had trouble falling asleep", assigned to the Hyperarousal subscale.

Rather than ask respondents about the frequency of symptoms in the last seven days, the IES-R asks respondents to indicate the degree of distress each of the 22 symptoms/items has caused in the past seven days. The response format was also modified to a 0 – 4 format with equal intervals rather than the unequal intervals of the original measure. Furthermore, Weiss and Marmar (1997) recommend that the subscale scoring be modified to the means of the non-missing items, which is a similar format to the SCL-90-R, allowing therefore, a comparison of symptom levels across these measures. However, this means a comparison of scores with the original measure is difficult.

The IES (Horowitz, et al.,1979) is one of the most frequently used self-report measures of posttraumatic symptomatology (Foa, et al.,1993). Although evidence has been shown that the IES taps posttraumatic stress-related phenomena, the IES was not developed to allow diagnosis of the disorder (Foa et al., 1993; Joseph, 2000). The IES has been used by some researchers (e.g. Astin, et al., 1993; Houskamp & Foy, 1991;) to classify PTSD caseness using various cut-off points proposed by the respective authors. However, the IES nor the IES-R does not provide cut-off points and was never intended for use in this way. Rather, the IES-R is intended to give an assessment of symptomatic status over the last 7 days with respect to the three domains of PTSD symptoms (Weiss, personal communication, May 1, 2001).

Initial data was collected on the IES-R in two different studies and using four broad categories of emergency personnel, has shown very high internal consistency on the three subscales. Reported alpha coefficients for the three subscales are as follows: Intrusion alpha .87 - .92; Avoidance alpha .84 - .86 and Hyperarousal alpha .79 - .90. Test-retest reliability coefficients were also reasonable. Intrusion .57 - .94; Avoidance .51 - .89 and hyperarousal .59 - .92 supporting the basic psychometric properties of the IES-R (Weiss & Marmar,1997). Similar to Bernat and colleagues (1998), the present study used the fullscale score (Chronbach's $\alpha = .94$) to assess current PTSD symptomatology. IES-R subscales were also used for analysis. Alpha coeeficients for the three subscale were: Intrusion alpha .90; Avoidance alpha .87 and Hyperarousal alpha .84.

6.3.7 Modified PTSD Symptom Scale-Self Report (M-PSS-SR)

The modified version of the PTSD Symptom Scale –Self Report (M-PSS-SR: Falsetti, et al.,1993) was the second instrument used to assess PTSD symptomatology. Falsetti and colleagues modified the original scale, the PTSD Symptom Scale (PSS; Foa, Riggs, Dancu & Rothbaum, 1993) to include both frequency and severity ratings for PTSD and changed the wording of six items. The M-PSS-SR has two rating scales for each of the seventeen items: one for the frequency of each symptom over the last four weeks and one for how distressing it was. Frequency is assessed on a 4-point scale from 0- *not at all* to 3- *five or more times a week/very much/almost always.* Severity is assessed on a 5-point scale from A-*not at all distressing* to E-*extremely distressing.*

The M-PSS-SR can be scored dichotomously and continuously, and like the IES-R, provides subscales for intrusion, avoidant and hyperarousal clusters of PTSD symptoms. Current PTSD status can be assigned if the respondent endorsed the DSM-IV criteria of at least one re-experiencing, three avoidance/numbing, and two increased arousal symptoms during the previous month. This scale can also be used as a continuous measure using frequency, severity and total scores. Cut-off scores developed by Falsetti and colleagues (1993) for community samples were used in the present study, as DVC clientele were not necessarily seeking treatment. A cut-off score of 15 for summed

frequency ratings; 32 for summed severity ratings and a cut-off of 46 for total sum score were used in the current sample to establish current PTSD status.

The M-PSS-SR has been validated on both treatment and community samples reporting a wide range of traumatic events. The M-PSS-SR demonstrated good overall internal consistency (Chronbach α = .96 for treatment sample and .97 for community sample) for the full scale, in addition to good internal consistency of the re-experiencing, avoidance, and arousal subscales. Good concurrent validity with the SCID PTSD module for DSM-IV was also reported by the authors. Good internal consistency was also found in the present sample with Chronbach's alphas of .96 for M-PSS total score; .90 for MPSS Frequency Index, and .94 for M-PSS Severity Index.

6.3.8 Crime Related PTSD Scale (CR-PTSD)

The Crime Related PTSD Scale (Saunders, et al., 1990) was the third instrument used to measure PTSD symptomatology. The CR-PTSD Scale (previously named SCL-PTSD) is a 28 item empirically derived scale within the SCL-90-R (Derogatis, 1994). The CR-PTSD scale was designed to discriminate between PTSD positive and PTSD negative individuals who have experienced a crime related trauma. The CR-PTSD was normed on ethnically diverse community women (Vogel & Marshall, 2001). Like the scoring of SCL-90-R, in order to obtain a scale score, the item responses are summed and divided by 28 to obtain a mean item score for the 28 items, and can range from 0 - 4. The authors note that it shouldn't be considered a stand alone measure of PTSD symptoms.

Using a clinical cut-off score of .89 the CR-PTSD has been reported by Saunders and colleagues (1990) to correctly classify 89.3% of female crime victims as positive or negative for PTSD. Sensitivity was 75% and specificity was 90%. Results of this scale do not imply diagnosis of PTSD, rather it measures symptoms which discriminated women with PTSD from those who did not have PTSD. The CR-PTSD also displayed with a high degree of internal consistency (Chronbach's α = .93). In addition the CR-PTSD scale has demonstrated incremental validity with respect to the IES (Arata, Saunders and

Kilpatrick,1991). Several authors (e.g. Dutton, Burghardt, et al., 1994, Dutton, Hohnecker, et al.,1994) have used this scale with domestically abused populations.

6.3.9 General psychopathology

When considering the impact of the traumatic event of partner abuse, it is important to consider the range of problems which contribute to general mental health, beyond PTSD specific symptoms (Briere,1997). The SCL-90-R (Derogatis,1994) is a widely used self-report symptom inventory designed to assess current psychological symptomatology. Each of the 90 items is a description of a psychological symptom. Respondents are asked to rate how much they are distressed or bothered by each item during the past week using a 5- point Likert scale (0= *not at all bot* to 4-*extremely).* The SCL-90-R consists of nine subscales and an index of global distress. Scores can be obtained for nine symptom subscales measuring somatisation, depression, anxiety, phobic anxiety, hostility, obsessive-compulsive behaviour, paranoid ideation, interpersonal insensitivity and psychoticism. Three indices of general distress can also be derived. The Global Severity Index (GSI), Positive Symptom Distress Index and the Positive Symptom Total.

The GSI has been used in previous studies examining posttraumatic stress in domestically abused women (e.g. Kemp et al., 1991; Wayland et al., 1991) and will be used as an indicator of general psychological distress in the present study. The nine subscale scores are also used in the present study to examine trauma-related disturbance in the sample. Derogatis (1994) reports satisfactory internal consistency coefficients ranging from .77 to .90 and test-retest reliability coefficients ranging from .68 to.90; as well as concurrent and discriminant validity for the SCL-90-R.

7.0 Chapter Overview

In this chapter, the sample is described in terms of demographic information, relationship information and history of abuse. This is followed by detailed information about the presence and frequency of physical and psychological abuse in the sample. Lifetime exposure to other traumatic events in is also described. A description is then given of the levels and nature of peritraumatic dissociation and posttraumatic stress symptoms in the present sample. The second section involves hypothesis testing through the use of Pearson correlation coefficients, and multivariate analysis of variance (MANOVA) statistical techniques.

7.1 Analyses

Data analysis was conducted using the Statistical Package for the Social Sciences (SPSS) Release 10.1. The analyses used included both descriptive and inferential statistics. Descriptive statistics were firstly used to examine the characteristics of the sample in terms of demographic, relationship and abuse history. Descriptive statistics were then used to analyse the abuse experienced by respondents in their former relationships, and scores on peritraumatic dissociation, lifetime exposure to traumatic events, PTSD symptoms and symptoms of general distress measures. Reliability analyses using Chronbach alphas were performed on measures excluding the TSS and SCL-90-R. PTSD was examined in the present sample both dichotomously and continuously on the three measures of PTSD. Pearson product-moment correlations were used to test the relationships between variables and test hypotheses. Preliminary assumption testing was conducted to check for normality, linearity, and outliers. There were some violations of assumptions, regarding normality, skewness and kurtosis, and one outlier was identified. However, data was not transformed given debate surrounding this, and the small sample size in the present study (Pallant, 2001). Respondents were split into PTSD cases and non-cases determined by the CR-PTSD and MANOVA was conducted to examine differences between these two groups on all measures.

7.2 Sample Description

7.2.1 Demographic Information

The overall sample size was 22. A summary of demographic information is detailed in Table 4. The age of respondents ranged from 20 to 56 years with a mean age was 38.23 years (SD = 9.81 years). The majority of respondents were aged in the range of 30 - 49 years (72.8%). When questioned about their ethnic group 45.5% of the sample identified as European New Zealanders/Pakeha, 13.6% identified as New Zealand Maori, and 9.1% identified a Pacific Island Nation. Pacific Island Nations which participants identified with were Samoa, Nuie, French Polynesia and Raratonga. Seven respondents (31.8%) identified as other. This included respondents who ticked more than one ethnicity. Of these four respondents identified as Maori and some other ethnicity. All but two respondents (9.1%) indicated that they were born in New Zealand and English was their first language. Compared to DVC statistical records, this distribution of ethnic identification is similar. This suggests that the current sample, while small, is somewhat representative of DVC clientele. Given the small sample size, and that ethnic groupings could not be meaningfully combined, ethnic group was not included in the data analysis.

Annual income levels in the present sample ranged from below $10,000 to $40,000 or more. Only one respondent had an income of under $10,000 per annum. Most of the sample reported an annual income in the range of $10 – 19,000 (40.5%). 18.2% reported annual income in the range $20-29,000, 9.1% in the range of $30-39,000, and 27.3% had income of $40,000 plus. Most respondents (36.4%) were in full-time employment, and 5 (22.7%) in part time employment. Four (18.2%) respondents were students and the remaining respondents (22.7%) were not in paid employment whether this was unemployed, retired, on a benefit or a homemaker. Two respondents (9.1%) reported they had not attained any formal school qualifications. Several respondents (31.8%) reported that School Certificate was their highest educational qualification, and 9.1% indicated they had attained a school

qualification, university entrance or above. A further, 13.6% of the sample had obtained a trade certificate or professional certificate/diploma, and 36.4% indicated they had obtained a University degree, diploma or certificate.

Table 4. Summary of Demographic Information

	Number of respondents	Percentage of respondents
Age (Years)	**22**	**M=38.23 SD =9.81**
20-29	4	18.2
30-39	8	36.4
40-49	8	36.4
50-59	2	9.1
Ethnic Group	**22**	
N.Z. Pakeha/European	10	45.5
New Zealand Maori	3	13.6
Pacific Island Nation	2	9.1
Other	7	31.8
New Zealand born	**22**	
Yes	20	90.9
No	2	9.1
English first language	**22**	
Yes	20	90.9
No	2	9.1
Education	**22**	
No school qualifications	2	9.1
School Certificate passes	7	31.8
School qualifications, UE and	2	9.1
Trade Cert, Professional	3	13.6
University Degree, Diploma, Cert.	8	36.4
Occupation	**22**	
Employed full time	8	36.4
Employed part time	5	22.7
Student	4	18.2
Not in paid employment	5	22.7
Annual Income	**22**	
$0 – 9999	1	4.5
$10,000 – 19,999	9	40.5
$20,000 – 29,999	4	18.2
$30,000 – 39,999	2	9.1
$40,000 plus	6	27.3

7.2.2 Relationship characteristics and history of abuse

A summary of relationship information and history of abuse is detailed in Table 5. When asked how many relationships respondents had where their partner was abusive towards them, 50% of the respondents indicated one. Eight respondents (36.4%) indicated that they had been in two abusive relationships, two respondents (9.1%) indicated three and one respondent (4.5%) indicated four or more abusive relationships. Thus, half of the sample indicated only one abusive relationship and half indicated more than one abusive relationship. This finding partly supports *Hypothesis 1* that women in the sample were likely to have been exposed to more than one traumatic event, and findings in the literature regarding the high rates of re-victimisation found in abused women.

Information was then sought on various attributes related to the most recent abusive relationship. Twelve respondents (54.5%) indicated that they were in a de-facto relationship, and five (22.7%) that they were legally married. The remaining five respondents (22.7%) reported that their relationship status was that of partner, for example boyfriend. All partners were of the opposite sex. Thirteen respondents (59.1%) indicated that their former partners identified as the same ethnicity as themselves and eight (36.4%) indicated that their former partner was of a different ethnicity. One participant identified their former partner as both the same and different ethnicity (e.g. Maori vs. Pakeha/Maori). The ethnic distribution of former partners was 40.9% N.Z. European/Pakeha, 9.1% N.Z. Maori, 22.7% Pacific Island Nation and 27.3% were some other ethnicity or more than one ethnicity.

The average length of time in the abusive relationship including time apart was 7.87 years (SD=8.67 years). The shortest time in the abusive relationship reported was 1 year and 4 months, the longest length of time was 36 years, giving a range of 34.67 years for the sample. The average time elapsed since separating from the abusive partner for this sample was 2.52 years (SD=3.09 years). The longest time elapsed for a single participant was 11 years and the shortest time since separating for a respondent was 2 months. Thus this sample had a range of time elapsed since separating of 10.8 years. However, the majority of women (81.8%) indicated that their former partner had been

Table 5. Summary of Relationship Information and History of Abuse

	Number of respondents	Percentage of respondents
Number of Abusive Relationships	**22**	
1	11	50.0
2	8	36.4
3	2	9.1
4 or more	1	4.5
Relationship status	**22**	
Married	5	22.7
De facto	12	54.5
Partner (e.g. boyfriend)	5	22.7
Same ethnicity as partner	**22**	
Yes	13	59.1
No	9	40.9
Partner ethnicity	**22**	
N.Z. European/Pakeha	9	40.9
N.Z. Maori	2	9.1
Pacific Island Nation	5	22.7
Other	6	27.3
Length of Relationship	**21**	***M=7.87yrs SD= 8.67yrs***
2 years and under	3	14.3
2-4 years	6	28.6
4-6 years	5	23.8
6-8 years	2	9.5
8 plus years	5	23.8
Time elapsed since separation	**22**	***M=2.52yrs SD= 3.09yrs***
Under 6 months	5	22.7
7-12 months	8	36.4
1-3 years	4	18.2
3-6 years	3	13.6
6 plus years	2	9.1
Abuse since separating	**22**	
Yes	18	81.8
No	4	18.2
Abuse by others while in abusive	**22**	
Yes	4	18.2
No	18	81.8
Children in care at time of relationship	**22**	
Yes	18	81.8
No	4	18.2
Number of Children	**18**	
1	7	38.9
2	4	22.2
3	3	16.7
4 or more	4	22.2
Child abused by partner	**17**	
Yes	7	41.2
No	10	58.8
Child witness to violence	**18**	
Yes	18	100
No	0	0
Male caregiver abusive towards female	**22**	
Yes	6	27.3
No	16	72.7
Protection Orders.	**22**	
Yes	16	72.7
No	6	27.3

7.3 Descriptive Statistics

Means and standard deviations of the psychometric instruments used in the present study are displayed in Table 6. Coefficients of internal consistency (Chronbach's alpha) also appear for most measures, and indicate high levels of reliability (.71 - .96) for the present sample. The information obtained from the measurement instruments are discussed individually in the following sections.

Table 6. Means, Standard deviations and Chronbach's alphas for measures used in the present study (N=22)

Scale	Mean	SD	α
ABI-Psychological Abuse	3.05	.69	.91
ABI-Physical Abuse	2.34	.58	.71
PDEQ	2.58	1.02	.90
IES-R Intrusion	1.60	.93	.90
IES-R Avoidance	1.42	.98	.87
IES-R Hyperarousal	1.48	1.00	.84
IES-R Total	1.50	.84	.94
M-PSS-SR Frequency	19.14	10.75	.90
M-PSS-SR Severity	20.05	15.36	.94
M-PSS-SR Full Scale	39.18	25.83	.96
CR-PTSD	.81	.73	.94
SCL-90-R Global Severity Index	.85	.67	-
SCL-90-R Somatization	.80	.93	-
SCL-90-R Obsessive-Compulsive	.97	.98	-
SCL-90-R Interpersonal Sensitivity	.98	.68	-
SCL-90-R Depression	1.02	.77	-
SCL-90-R Anxiety	.92	.87	-
SCL-90-R Hostility	.63	.69	-
SCL-90-R Phobic Anxiety	.64	.86	-
SCL-90-R Paranoid Ideation	.75	.49	-
SCL-90-R Psychoticism	.57	.56	-

7.3.1 Physical and Psychological Abuse

The Abusive Behavior Inventory (ABI; Shepard & Campbell, 1992) was used to gather information about the presence and frequency of a range of physically and psychologically abusive behaviours used by respondent's former partners. The ABI was extended in the present study to include an additional four items, although the original 30 items only, were used for calculating the ABI Physical abuse score (9 items) and the ABI Psychological abuse score (21 items). Respondents ABI Physical scores ranged from 1.44 to 3.67 and ABI Psychological scores ranged from 1.63 to 4.19. The mean score of the ABI Physical abuse subscale for this sample was 2.34 (SD=.58). This suggests that physical abuse occurred rarely to occasionally in the current sample. ABI psychological abuse score for the sample was reported by respondents to have occurred occasionally to frequently with a mean score of 3.05 (SD=.69).

No normative data are available for the ABI so determining whether the abuse levels were low, moderate, high or how typical the levels of abuse shown by participants in the present study is difficult (Russell & Jory,1997). As Russell and Jory note, high values could be expected to apply to extremely abusive relationships, but it is not known whether anyone ever obtains very high scores. However, a comparison with other studies using this instrument makes the scores obtained in the present sample more meaningful. As can be seen in Table 7, Shepard and Campbell (1992) reported a mean ABI physical score of 1.8 (SD =.47) and a mean ABI psychological score of 2.8 (SD = .70) suggesting that respondents reported physical abuse to occur rarely and psychological abuse to occur occasionally. The ABI psychological abuse sample mean in the present study is well above that of other studies. The ABI physical abuse mean is also higher than in other studies, but compares with Shepard's (1992) mean of 2.20 in a sample of abused and separated mothers. This study also had a similar sample size to the present study. Shepard (1992) states that mean ABI scores do not provide a clear picture of the extent to which respondents experienced individual forms of abuse and tabulated the frequency of respondents endorsements of ABI items. Tables 8 to 10 display each item and the percentage of respondents who reported never; rarely or occasionally; and frequently or very frequently.

Table 7. Comparison of means across studies using the ABI

Author/s	Scale	Population	Sample Size	Mean Physical	Mean Psychological
Present Study (2002)	Modified ABI	abused women	22	2.34 (.58)	3.05 (.69)
Shepard & Campbell (1992)	ABI	abused women	39	1.80 (.47)	2.80 (.70)
Shepard & Campbell (1992)	ABI	non-abused women	39	1.30 (.65)	2.00 (.70)
Shepard (1992)	Modified ABI	abused separated mothers	25	2.20	2.60
Neufield, McNamara, & Ertl (1999)	ABI	College Students, last 6 months	623	1.07	1.28
Neufield, McNamara, & Ertl (1999)	ABI	College students, lifetime	623	1.17	1.51
Russel & Jory (1997)	ABI	Partner's of abusive men attending group program Pre-program report	5	1.72 (.79)	4.22 (1.8)
Russel & Jory (1997)	ABI	Partner's of abusive men attending group program Post-program report	5	1.00 (.14)	2.54 (.58)

Table 8. Percentage of Sample Reporting Psychological Abuse

	ABI ITEM	N	NEVER %	RARELY/ OCCASIONALLY %	FREQUENTLY /VERY FREQ %.
1	**Called you names and/or criticised you**	22	0	18.2	81.8
2	**Tried to keep you from doing something you wanted to do**	22	0	31.8	68.2
3	**Gave you angry looks or stares that made you feel scared**	22	4.5	36.4	59.1
4	**Prevented you from having money for your own use**	22	31.8	45.5	22.7
5	**Ended a discussion with you and made the decision himself**	22	9.1	18.2	72.7
6	**Threatened to hit or throw something**	22	13.6	36.4	50.0
8	**Put down your family and friends**	21	4.8	19.0	76.2
9	**Accused you of paying too much attention to someone or something else**	22	9.1	18.2	72.7
10	**Put you on an allowance**	22	81.8	9.1	9.1
11	**Used your children to threaten you**	18	38.9	33.3	27.8
12	**Became very upset with you because dinner, housework, or laundry was not ready when he wanted it or done the way he thought it should be**	22	13.6	36.4	50.0
13	**Said things to scare you**	22	13.6	45.5	40.9
15	**Made you do something humiliating or degrading**	22	18.2	68.2	13.6
16	**Checked up on you**	22	13.6	36.4	50.0
17	**Drove recklessly when you were in the car**	22	9.1	63.6	27.3
19	**Refused to do housework or childcare**	21	19.0	47.6	33.3
20	**Threatened you with a knife, gun, or other weapon**	22	45.5	54.5	0
21	**Threatened you with his fists**	22	13.6	68.2	18.2
22	**Told you that you were a bad parent**	18	16.7	50.0	33.3
23	**Stopped you or tired to stop you from going to work or school**	22	50.0	36.4	13.6
24	**Threw, hit, kicked, or smashed something**	22	0	40.9	59.1

Table 9. Percentage of Sample Reporting Physical Abuse

	ABI ITEM	N	NEVER %	RARELY/ OCCASIONALLY %	FREQUENTLY /VERY F REQ %.
7	**Pushed, grabbed, or shoved you**	22	4.5	54.5	40.9
14	**Slapped, hit or punched you**	22	9.1	63.6	27.3
18	**Pressured you to have sex in a way that you didn't like or want**	22	22.7	40.9	36.4
25	**Kicked you**	22	27.3	59.1	13.6
26	**Physically forced you to have sex**	22	36.4	45.4	18.2
27	**Threw you around**	22	22.7	54.5	22.7
28	**Physically attacked the sexual parts of your body.**	22	77.3	22.7	0
29	**Choked or strangled you**	22	50.0	40.9	9.1
30	**Used a knife, gun, or other weapon against you**	22	63.6	36.4	0

Table 10. Percentage of Sample Reporting ABI Additional Items

	ABI ITEM	N	NEVER %	RARELY/ OCCASIONALLY %	FREQUENTLY /VERY F REQ %.
31	Hurt you so bad that you needed medical attention or hospitalisation	22	31.8	63.6	4.5
32	Stopped you from gaining medical attention or medication	22	63.6	36.4	0
33	Other physically abusive behaviours not listed	22	40.9	50.0	9.1
34	Other emotionally abusive behaviours not listed	21	14.3	47.6	38.1

Over one half of the women in the present study reported that their former partners had used the following psychologically abusive behaviours frequently or very frequently during the time of the relationship: called them names and/or criticised them; tried to keep them from doing something they wanted to do; gave them angry looks or stares that made them feel scared; ended a discussion with them and made the decision himself; threatened to hit or throw something at them; put down family and friends; accused them of paying too much attention to someone or something else such as children; become upset when something such as dinner wasn't ready when he wanted it, or done the way he thought it should be; checked up on them such as listening to their phone calls; and threw, hit , kicked, or smashed something.

The most frequently reported psychologically abusive behaviour, and endorsed by all of the women in the current sample was that their former partners had called them names and/or criticised them; tried to keep them from doing something they wanted to do; and threw, hit or kicked something. Over one-third of the sample also reported that their former partners used other emotionally abusive behaviours not listed either frequently or very frequently.

All respondents indicated that their former partners used at least two forms of physically abusive behaviours. Over one-fourth of respondents reported that their former partners had frequently or very frequently pushed, grabbed, or shoved them; or slapped, hit or punched them. Over two-thirds of respondents reported that their former partners had kicked them (72.7%) and had thrown them around (77.3%). Over one-third (36.4%) reported that a knife, gun, or other weapon was used against them and 50% of women reported being choked or strangled.

Of great concern, over three-quarters of respondents (77.3%) reported they had been pressured to have sex in a way that they didn't like or want, and that this happened frequently or very frequently for over one-third (36.4%) of the sample. Additionally, over one-half of women (63.4%) reported that they had been physically forced to have sex. Over two-thirds of women (68.2%) were hurt so bad that they needed medical attention or hospitalisation and over one-third

(36.4%) reported that their former partner stopped them from gaining medical attention or medication. Over one-half (59.1%) of the sample also reported that their former partner had used other physically abusive behaviours that were not listed.

Multiple responses were common on both ABI subscales. The physical abuse subscale showed many multiple endorsements with 95.5% indicating the occurrence of 4 or more of the 9 physically abusive items. The psychological abuse subscale indicated that 95.5% of the sample endorsed 12 or more of the 21 items. The relationship between ABI physical abuse and ABI psychological abuse was investigated using Pearson product-moment correlation coefficient. There was a moderate, positive correlation between the two variables ($r=.58$, $p<.001$) with increasing levels of psychological abuse associated with increasing levels of physical abuse.

7.3.2 Exposure to Traumatic Events

Lifetime exposure to twelve traumatic events was examined using the Traumatic Stress Schedule (TSS; Norris,1990) modified for use in a New Zealand general population study (Flett et al., in press). Respondents circled 'yes' or 'no' to indicate whether or not the event had occurred in their lifetime. The total score on this measure was the number of stressful life events reported by the respondent. This measure was administered, in order to test *Hypothesis 1* that respondents were likely to have been exposed to more than one traumatic event in their lifetime, and to control for this variable in further analyses.

All but one participant reported that they had experienced a traumatic event in their lifetime (95.5%). Lifetime frequencies for the total sample ranged from zero for combat to 59.1% for secondary trauma (i.e. a loved one had experienced a violent assault, serious accident or serious injury). Half of the sample reported that they had experienced being seriously beaten or attacked by a family member such as spouse, partner, parent, or child, and over one-quarter (31.8%) reported being seriously beaten or attacked by a non-family

member. Half of the sample reported having experienced adult sexual abuse and over one-quarter (27.3%) reported experiencing child sexual abuse. Over one-third of respondents (45.5%) reported experiencing the violent or unexpected death of a loved one. One-third of the sample (33.3%) reported that they had an experience that was shocking, terrifying or otherwise traumatic including events that they find too difficult to name or talk about. Table 11 presents a comparison of rates of exposure to trauma in this sample, with those found in women in the New Zealand general population (Flett, et al., in press). As can be seen, a higher percentage of respondents in the present sample reported exposure to all twelve traumatic events. However, results must be interpreted cautiously given the small sample size in the present study.

Table 11. Comparison of Exposure to Traumatic Events in the Present Sample with women in a N.Z Community Sample (Flett,et al., in press).

Type of Trauma	Present Study N=22		Flett et al.,(in press) N= 964	
	%	N	%	N
Combat	0	0	0.2	2
Child sexual assault	27.3	6	13.4	129
Adult sexual assault	50.0	11	9.3	90
Domestic Assault	50.0	11	16.5	.
Physical assault	31.8	7	7.6	.
Robbery, mugging, hold-up	9.5	2	3.4	33
Motor vehicle accident	18.2	4	8.7	84
Other accident	9.1	2	5.6	.
Disaster experience	9.1	2	5.5	53
Other hazard	9.1	2	5.9	.
Tragic death	45.5	10	25.2	243
Secondary trauma	59.1	13	22.0	.
Any other experience that was shocking, terrifying or otherwise traumatic	33.3	7	.	.

* Data not available

As can be seen in Table 12. exposure to multiple traumas was common in the present sample. Of those reporting exposure to trauma, 80.9%, reported having experienced two or more traumatic events in their lifetime. This rate is comparable to Flett and colleagues (in press) results in which 75% of those exposed to trauma had experienced two or more multiple events. On average, respondents reported experiencing 3.5 (SD= 2.02) traumatic events in their lifetime. One participant reported exposure to eight different traumatic events.

Table 12. Percentage of Respondents Reporting Exposure to Multiple Traumatic Events (N=22)

Number of Traumatic Events	Frequency	Percent %
0	1	4.5
1	4	18.2
2	2	9.1
3	3	13.6
4	5	22.7
5	4	18.2
6	2	9.1
8	1	4.5

7.3.3 Peritraumatic dissociation

The PDEQ was scored as the mean across the ten items to give a single PDEQ Total score. Principal components factor analysis in previous research (e.g. Marmar, Weiss, Metzler & Delucchi, 1996; Tichenor, et al., 1996) have supported the retention of a single factor to represent dissociation at the time of trauma. Total PDEQ scores ranged from 1.2 to 4.9 in the present sample. The level of total peritraumatic dissociative experiences for this sample (M=2.58, SD=1.02), averaging between 'slightly true' and 'somewhat true'. Table 13 compares means and standard deviations across PDEQ items found in the present study with previous studies that have used this measure.

Unfortunately, comparison was only able to be made with previous research using the 8-item version of the PDEQ.

Table 13. Comparison of Means and Standard Deviations Across PDEQ items in present sample and previous research

PDEQ ITEM	Present Study N=22		Marmar et al (1994) N= 248-251		Tichenor, et al (1996) N=77		O'Toole et al., (1999) N=641	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Moments of losing track or blanking out	2.8	1.34	1.4	0.79	1.3	0.66	1.26	0.65
Found self acting on "automatic pilot"	2.7	1.36	1.9	0.97	1.8	0.94	1.58	0.89
Sensation of time change during the event	2.2	1.38	2.1	0.96	1.4	0.91	1.88	0.97
Event seemed unreal as in dream or play	3.0	1.46	1.9	0.97	1.6	0.88	1.69	0.92
Felt like spectator, as if floating above scene	2.5	1.57	1.5	0.82	1.3	0.67	1.28	0.67
Felt disconnected from body or body distorted	2.5	1.41	1.3	0.67	1.1	0.45	1.25	0.64
Felt what was happening to others was happening to self	2.1	1.57	1.3	0.74	1.1	0.35	1.15	0.50
Not aware of things that happened	2.6	1.33	1.8	0.95	1.2	0.58	1.56	0.87
Confusion, difficulty making sense of scene	3.3	1.46	*	*	*	*	*	*
Disorientation, uncertain about place and time	2.05	1.32	*	*	*	*	*	*

*Data not available.

As can be seen, in comparison to other similar studies, the level of peritraumatic experiences is high in the present sample. Furthermore, in Marmar, Weiss, Metzler and Delucchi's (1996) study, participants with scores of 1.50 or lower were considered to have experienced no clinically meaningful dissociation, and those with scores above 1.50 were considered to have clinically salient levels of peritraumatic dissociation. In their sample, 75% of the subjects (N=267) fell below the cut-off score of 1.50, and 25% of the subjects (N=91) fell above the threshold for clinically meaningful peritraumatic dissociation. In the current sample 19 participants (86.4%) fell above the threshold for clinically meaningful peritraumatic dissociation using the 1.50 cut-off. All respondents endorsed at least two items representing dissociation at the time of the abusive relationship. One-half of respondents reported five or more dissociative experiences. Five participants (22.7%) endorsed all 10 items. Table 13 presents percentages of respondents who endorsed 'not at all true', 'slightly true' or 'somewhat true' and 'very true' or 'extremely true' on PDEQ. Nearly all participants (86.4%) reported that they had felt confused, with moments when they had difficulty making sense of what was happening. The most frequently endorsed dissociative experience following this was having moments of losing track of what was going on such as 'blanking out' and 'spacing out', and feeling that what was happening seemed unreal, like they were in a dream or watching a movie (77.3%). The least reported dissociative experience was 'feeling as though things were actually happening to others were happening to them'. Overall, the data lends support to *Hypothesis 2* which predicted that women in the sample would report significant levels of dissociative experiences at the time of trauma.

Table 14. Percentage of respondents reporting peritraumatic dissociation

PDEQ ITEM	Not at all true %	Slightly true/ Somewhat true %	Very true/ Extremely true %
Moments of losing track or blanking out	22.7	40.9	36.4
Found self acting on "automatic pilot"	27.3	40.9	31.8
Sensation of time change during the event	45.5	27.3	27.3
Event seemed unreal as if dream or play	22.7	31.8	45.5
Felt like spectator, as if floating above scene	40.9	22.7	36.4
Felt disconnected from body or body distorted	36.4	36.4	27.3
Felt what was happening to others was happening to self	63.6	13.6	22.7
Not aware of things that happened	31.8	45.5	22.7
Confusion, difficulty making sense of scene	13.6	31.8	54.5
Disorientation, uncertain about place and time	54.5	27.3	18.2

7.3.4 Posttraumatic Stress Disorder

Three validated measures were used to assess posttraumatic stress symptomatology (M-PSS-SR; IES-R; CR-PTSD) in the present sample. PTSD was examined both dichotomously and continuously using the three measures of PTSD to examine *Hypothesis 3*: that a significant proportion of the present sample would exhibit PTSD symptoms.

7.3.5 Impact of Event Scale-Revised (IES-R)

The IES-R was used to examine PTSD symptom status continuously. The IES-R is scored as the mean of item response ratings, and scores can range from 0 through 4. The group mean on the intrusion subscale for this sample was (M=1.60, SD=.93*)*. This indicates that in the last week, the distress from

intrusive symptoms for this sample was "more than a little bit", but not quite "moderate". The Avoidance subscale mean was (M=1.42, SD=.98), Hyperarousal subscale (M=1.48, SD=1.00). Total IES-R mean was (M=1.50, SD=.84) indicating that women in the sample experienced intrusive, avoidance and hyperarousal symptoms more than a little bit, but not quite moderate distress overall. It is noted that two different scoring systems and different weightings have been used in published studies on the IES and IES-R (Joseph,2000). This disparity was evident when results from the present study using the IES-R were compared with results across studies using the original version of the measure. No other studies using the IES-R to document PTSD symptoms in domestically abused women were able to be located.

7.3.6 Crime Related PTSD (CR-PTSD)

To examine the current prevalence rate of PTSD in this sample, respondents were classified as PTSD cases or non-PTSD cases on the basis of scores on the M-PSS-SR and the CR-PTSD scales. Based on the raw cut-off score of .89, Saunders and colleagues (1990) reported the CR-PTSD scale correctly classified 89.3% of women as PTSD-positive or PTSD-negative following their exposure to violent crime. Using the same procedure as Vogel and Marshall (2001), two groups were created depending upon whether women reported high (at or above the cutoff,) or low (below the cutoff) symptoms likely to discriminate women diagnosed with PTSD. For brevity, those scoring in the high symptoms group were classified as PTSD cases, and those with low symptoms as PTSD non-cases.

The mean score on the CR-PTSD for the whole sample was (M=.81, SD=.73). In examining the scores on the CR-PTSD, nearly one-third, (31.9%) of the sample exceeded the cut-off of .89 and were classified as PTSD cases. This is in contrast to Vogel and Marshall (2001) who found that nearly half (49.6%) of their sample of 836 women were classified high symptoms using the CR-PTSD The PTSD case group had a mean of (M=1.66,SD=.72). This is comparable to Vogel and Marshall's (2001) findings of (M=1.67). This is nearly double the cut-off and higher than the scale development sample (M=1.39, SD=.79). Women classified as PTSD non-cases had a group mean of (M =.79, SD =.24). This is

in contrast to women in the CR-PTSD low symptoms group reported by Vogel and Marshall (2001) who found (M=.43) and the original report of (M=.39, SD=.41). Table 15 presents a comparison of CR-PTSD scores found in previous research using abused women samples and scores for the total sample in the present research. The mean CR-PTSD score obtained for the present sample was below that of other studies, comparing most favourably with Dutton et al., (1994) sample of clinically battered women.

Table15. CR-PTSD Means and Standard Deviations Across Studies

	Population	Sample Size	M	SD
Present Study	Abused Women	22	.81	.73
Vogel & Marshall (2001)	African American Women	303	1.04	.84
Vogel & Marshall (2001)	Euro-American Women	273	1.08	.74
Vogel & Marshall (2001)	Mexican American Women	260	1.01	.76
Dutton (1992a)	Physical Abuse only	98	1.0	.74
Dutton (1992a)	Physical and sexual abuse	53	1.61	.87
Dutton (1992a)	Total Sample	151	1.21	.84
Dutton, Hohnecker, Halle, & Burghardt (1994)	Forensic Sample [a]	20	1.64	.86
Dutton, Hohnecker, Halle, & Burghardt (1994)	Clinical Sample[b]	27	.98	.88

a = women charged with attempted or actual homicide of their abusive partner b=treatment seeking abused women.

7.3.7 Modified Posttraumatic Symptom Scale (M-PSS-SR)

The M-PSS-SR can be used to assess both frequency and severity of PTSD symptoms, and also provides a Full Scale Score. Scores can range from 0-51 on Frequency, 0-68 on Severity and 0-119 for Total scores. The M-PSS-SR was scored as a continuous measure and suggested cut-off scores were used to determine PTSD caseness. The M-PSS-SR scale provides cut-off points for both community and treatment samples. The community cut-off points were used in the present sample, as respondents were not necessarily seeking treatment when coming into contact with the Domestic Violence Centre. Cut-off points for M-PSS-SR Full Scale score for the community sample proposed by

Falsetti and colleagues (1993) is 46. Overall correct classification using the Full Scale cut-off was 72% in the community sample (sensitivity .68, specificity, .81).

Using the Full Scale score of this measure, and similar to the CR-PTSD scale, a rate of 27.3% of the sample were identified as PTSD cases, providing further support for *Hypothesis 3*. The mean score for on the M-PSS-SR for the PTSD case group was (M=74.00, SD=17.88*)*. In contrast, the mean for PTSD non-case group on the M-PSS-SR was (M=25.13,SD=12.68*)*. Cut-off points are also provided for Frequency (cut-off 15) and Severity scores (cut-off 32). Using these cut-offs Falsetti and colleagues (1993) obtained a correct classification rate of 74% (sensitivity .71, specificity .82) for Frequency subscale; and a correct classification rate of 71% (sensitivity .68, specificity, .89) for Severity subscales. In the present sample, 14 participants (63.64%) scored above cut-off points for Frequency subscale and 5 participants (22.73%) scored above the cut-off point on the Severity subscale. The mean score for the high Frequency group (above cut-off) was (M=24.93, SD=9.11*)*. This mean is nearly four times greater than that of the community sample mean (M=6.15, SD=8.18*)* reported by Falsetti and colleagues (1993). The low Frequency group had a mean of (M=9.00, SD=2.78). The high Severity group mean was (M=43.80, SD=8.32), and the low Severity group (M=13.06, SD=8.02*)*.

The sample mean overall for the present sample was: Frequency Sum (M=19.14, SD=10.75)*;* Severity Sum (M=20.05, SD=15.36); and Full Scale score (M=39.18, SD=25.83). This indicates that the current sample experienced symptoms of PTSD approximately half the time or two to four times a week. The severity of symptoms, on average for this sample was reported as moderately distressing. Table 16 provides a comparison of means and standard deviations found in the present sample with Falsetti and colleagues (1993) original two samples.

Table 16. M-PSS-SR ,Means and Standard Deviations of Current Sample and those found in Falsetti et al., (1993) Treatment and Community Samples

	Frequency		Severity		Full Scale	
	M	SD	M	SD	M	SD
Present Study Total Sample (N=22)	19.14	10.75	20.05	15.36	39.18	25.83
Present Study PTSD case (N=6)	33.00	8.32	41.00	10.12	74.00	17.88
Present Study PTSD non-case (N=16)	14.27	5.78	12.80	7.23	26.13	12.68
Falsetti et al., (1993) Treatment Sample	23.76	13.16	49.47	18.76	79.57	30.51
Falsetti et al., (1993) Community Sample	6.15	8.18	24.61	12.43	30.78	20.33

As can be seen, the Frequency mean for the total sample is nearly three times higher than that found by Falsetti for the community sample, whereas the mean Severity is lower in this sample. The Full Scale score found in the present sample is also well above that found in the original study, suggesting that the occurrence of PTSD in the current sample is high. In sum, the hypothesis that a significant proportion of women in the sample would display symptoms of PTSD was supported, in respect to the three measures of PTSD used, with 27% classified as PTSD cases on the M-PSS-SR, 31.9% of the sample classified as PTSD cases on the CR-PTSD, and reports of experiencing moderate 'distress' from avoidance, intrusion and hyperarousal symptoms as measured by the IES-R.

7.3.8 General Psychopathology (SCL-90-R)

Respondent's scores on the GSI and the nine subscales of the SCL-90-R were examined in relation to normative data to examine *Hypothesis 4*, that women abused by their partners would present with a variety of psychological symptoms of distress. The mean GSI raw score for this sample was (M=.84, SD=.67). Transformed into a mean t-score, this sample had a mean of 60.59 (SD=10.55). Participants with a t-score of 70 or greater on the GSI and the nine

specific subscales were categorized as symptomatic. A t-score of 70 is a commonly used index of clinical significance (Kaplan & Saccuzzo,1997) and suggests that less than 2% of a normal population obtained a score equal to or higher than the designated value. Using this method, 4 participants (18.18%) of this sample were identified as symptomatic on the Global Stress Index.

Overall, respondents mostly reported symptoms of anxiety, with 27.3% of the sample indicating clinically significant levels of anxiety. Clinically significant problems with depression, interpersonal sensitivity, phobic anxiety and psychoticism were reported by 18.2% of the sample. Clinically significant levels of obsessive-compulsive (13.6%), hostility (9.1%) and paranoia (4.5%) indexes, were reported less commonly by respondents. No respondents were above the threshold (t score =70 or above) on all nine scales. However, one respondent was above threshold on 8 scales, one respondent on 7 scales, one respondent on 5 scales, one on 4 scales and one on 3 scales. Two respondents reported clinically significant distress on 2 scales, and 3 participants reported clinically significant levels of distress on at least one scale.

Tables 17 and 18 present a comparison of means and standard deviations of the GSI and subscale raw scores obtained in the present study with those obtained in previous research. In comparison to similar studies using GSI scores, for a variety of trauma populations, the present sample scored much higher (e.g. Weiss, et al., 1995, Marmar, Weiss, Metzler, Ronfeldt, et al.,1996). However, in comparison to the norms for battered women suggested by Dutton (1992a), the present sample scored comparatively much lower both on the GSI and the nine subscales. That women in the sample displayed a number of psychopathological symptoms, as measured by the SCL-90-R Global Severity Index and nine subscales, provides support for *Hypothesis 4.*

Table 17. GSI (SCL-90-R) Raw Scores across Studies

	Population	Sample Size	SCL-90-R GSI	
			M	SD
Present study	Abused Women	22	.84	.67
Weiss, Marmar, Metzler, & Ronfeldt (1995)	Emergency Workers	367	.35	.33
Marmar,Weiss,Metzler, Ronfeldt & Foreman (1996)	Emergency Services Personnel (Experimental Group)	198	0.30	0.30
Marmar,Weiss,Metzler, Ronfeldt & Foreman (1996)	Emergency Services Personnel (control Group)	101	0.32	0.70
Marmar,Weiss,Metzler, Ronfeldt & Foreman (1996)	Emergency Services Personnel (control group)	140	0.30	0.32
Dutton (1992a)	Battered Women Physical Abuse Only	98	1.04	.70
Dutton (1992a)	Battered Women Physical and Sexual Abuse	53	1.59	.78
Dutton (1992a)	Total Sample	151	1.23	.77
Dutton, Hohnecker, Halle & Burghardt (1994)	Forensic Battered Women[a]	20	1.66	.74
Dutton, Hohnecker, Halle & Burghardt (1994)	Clinical Battered Women[b]	28	.98	.78

a = women charged with attempted or actual homicide of their abusive partner b=treatment seeking abused women.

Table18. Comparison of Means and Standard Deviations on SCL-90-R Subscales across Studies

Study	Sample Size	SOM		OC		INT		DEP		ANX		HOS		PHOB		PAR		PSY	
		M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Present Study	22	.79	.93	.97	.98	.98	.68	1.02	.77	.92	.87	.63	.69	.64	.86	.75	.49	.57	.56
Dutton (1992a)	98 Physical Abuse Only	.91	.76	1.16	.89	1.10	.85	1.48	.94	1.04	.76	1.09	.94	.47	.59	1.09	.78	.75	.74
Dutton (1992a)	53 Physical & Sexual Abuse	1.38	.87	1.76	.96	1.70	1.02	2.11	.91	1.76	.99	1.45	.82	.88	.89	1.59	.84	1.14	.85
Dutton (1992a)	151 Total Sample	1.08	.83	1.38	.96	1.31	.95	1.70	.98	1.29	.92	1.22	.91	.62	.73	1.27	.84	.88	.80

Note: The table abbreviations stand for the following: GSI=Global Severity Index; SOM=Somatization; OC=Obsessive Compulsive; INT =Interpersonal Sensitivity; DEP=Depression; ANX=Anxiety; HOS=Hostility; PHOB=Phobic Anxiety; PAR=Paranoid Ideation; PSY=Psychoticism.

7.4 Correlational Analyses

7.4.1 Intercorrelations between symptom measures

To determine the level to which the measures of PTSD in the present study were associated with each other (concurrent validity), Pearson correlational analysis was performed. The relationship between the three symptom measures and GSI was also examined to test *Hypothesis 5*, that high levels of PTSD symptoms would be positively correlated with levels of current symptoms of general psychological distress, given the high comorbidity rates of PTSD with other psychopathology reported in the literature. Table 19 presents a correlation matrix between the three measures of PTSD and SCL-90-R (GSI) scores. As can be seen, all measures of PTSD were moderately to strongly correlated with each other in a positive direction, and most were significant at the p<.001 level. Total IES-R was very strongly correlated with avoidance, intrusion and hyperarousal subscales. Similarly, M-PSS-SR Severity and Frequency, and Full scale scores were highly correlated with each other, displaying the highest correlation between the measures (r=.93 to .99). The M-PSS-SR and IES-R subscales were also highly correlated with each other, ranging from (r=. 61 to .83).

Pearson correlation coefficients indicated that the CR-PTSD score was strongly correlated with IES-R Intrusion (r=.66, p<.001), IES-R Hyperarousal (r=.67, p<.001) and IES-R Total score (r=.68, p<.001). CR-PTSD score was only moderately associated with IES-R Avoidance (r=.47, p,.05). These correlations are much higher than those reported in Arata, Saunders and Kilpatrick's (1991) validation study of the CR-PTSD where only moderate correlations were found with the IES. However, this disparity is likely due to the authors using the original version of the IES. The relationship between the CR-PTSD scale and M-PSS-SR scale were stronger than that found for the IES-R, with (r=.80, .85, .84) for M-PSS-SR Frequency, Severity and Full scale scores respectively.

These three PTSD symptom specific measures were also positively associated with the GSI scores ranging from (r = .45 to .98) for IES-R Avoidance and CR-PTSD respectively. This suggests that increasing levels of PTSD specific

symptoms are associated with increasing levels of general psychopathology, providing support for *Hypothesis 5*. Given the high intercorrelations between PTSD measures, PTSD caseness was determined for subsequent analysis in the present sample as reaching the cut-off point for CR-PTSD. This more inclusive method was chosen in order to better detect differences if there were any and minimise Type II errors in this small sample.

Table 19. Correlations between measures of PTSD and SCL-90-R (GSI)

	IES-R Intrusion	IES-R Avoidance	IES-R Hyper-arousal	IES-R Total	M-PSS-SR Frequency	M-PSS-SR Severity	M-PSS-SR Full Scale	CR-PTSD
IES-R Avoidance	.629**							
IES-R Hyper-arousal	.787**	.501*						
IES-R Total	.921**	.838**	.851**					
M-PSS-SR Frequency	.763**	.607**	.749**	.807**				
M-PSS-SR Severity	.828**	.687**	.797**	.881**	.956**			
M-PSS-SR Full Scale	.810**	.661**	.785**	.860**	.985**	.993**		
CR-PTSD	.661**	.468*	.672**	.682**	.797**	.847**	.836*	
SCL-90-R GSI	.636**	.446*	.685**	.667**	.807**	.860**	.847*	.977**

* p<.05 level (2-tailed), **p< .01 level (2-tailed);

In order to examine the relationship between variables, and test hypotheses, Pearson product-moment correlations were used. Preliminary analyses were performed to test assumptions of normality, linearity and homoscedasticity with no serious violations. Transformation of data was not performed, nor were cases excluded given the small sample size. The guidelines suggested by Cohen (1988) were used to interpret correlations. Table 20 presents a correlation matrix of the variables used in the study.

7.4.2 PTSD correlations

Given the findings in the literature regarding the cumulative effects of trauma, *Hypothesis 6* predicted that there would be a positive correlation between the number of stressors experienced and current levels of PTSD symptoms. The number of traumas that respondents were exposed to in their lifetime, measured by the TSS, was not significantly correlated with any of the PTSD symptom measures($r=.07$ to $.32$, $p > .01$), or the Global Symptom Index ($r=.21$, $p>.05$). Furthermore, there were no significant correlations between TSS and, ABI Physical abuse, ABI Psychological abuse or peritraumatic dissociation. The only significant correlation found was a moderate positive correlation between number of abusive relationships and number of traumatic experiences, as measured by the TSS ($r=.46$, $p<.05$), with an increasing number of abusive relationships associated with increased number of exposure to traumatic events. Overall, *Hypothesis 6*, which predicted that increasing levels of exposure to trauma would be related to levels of PTSD symptoms, was not supported.

Table 20. Correlations between Study Variables examined in present study.

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.
1. Psychological Abuse																	
2. Physical Abuse	.58**																
3. Age	.12	.12															
4. Number of Abusive Relationships	-.15	.11	.38														
5. Relationship Length	.15	.12	.51*	-.08													
6. Time elapsed	.16	-.17	.16	.07	.04												
7. Number of children	-.13	-.05	.67**	.26	.70**	-.18											
8. IES-R Intrusion	.49*	.51*	.06	.22	.19	-.07	.07										
9. IES-R Avoidance	.46*	.31	.16	.21	.01	.12	-.06	.63**									
10. IES-R Hyperarousal	.52*	.48*	.04	.29	.14	-.16	-.04	.79**	.50*								
11. Total IES-R	.56*	.49*	.11	.27	.13	-.03	-.01	.92**	.84**	.85**							
12. M-PSS Frequency	.54*	.55**	.01	.16	.14	-.06	-.17	.76**	.61**	.75**	.81**						
13. M-PSS Severity	.53*	.54**	-.01	.28	.10	-.08	-.12	.83**	.69**	.80**	.88**	.96**					
14. M-PSS Total	.54*	.55**	-.004	.23	.12	-.08	-.14	.81**	.66**	.79**	.86**	.99**	.99**				
15. PDEQ Total	.49*	.28	-.23	-.16	-.20	-.05	-.36	.35	.45*	.34	.44*	.46*	.56**	.53*			
16. GSI	.33	.31	-.16	.35	-.06	-.21	-.14	.64**	.45*	.69**	.67**	.81**	.86**	.85**	.54**		
17. TSS	.29	.26	.37	.46*	.13	.23	.34	.32	.07	.35	.27	.13	.19	.16	-.05	.21	
18. CR-PTSD	.32	.29	-.12	.40	-.06	-.14	-.10	.66**	.47*	.67**	.68**	.80**	.85**	.84**	.46*	.98**	.24

*Correlation is significant at the 0.05 level (2-tailed). ** Correlation is significant at the 0.01 level (2-tailed).

7.4.3 The relationship of Domestic Violence and Peritraumatic Dissociation

ABI Physical abuse and ABI Psychological abuse were not significantly correlated to, respondents age, number of abusive relationships, or length of abusive relationship. PDEQ total score was not significantly associated with the ABI Physical abuse subscale ($r=.28$, $p>.05$). However, a moderate positive correlation was found between PDEQ and ABI Psychological abuse subscale ($r=.49$, $p<.05$). This means that Psychological Abuse explains 24% of the variance in respondents' scores on the PDEQ, which is quite significant. Therefore, *Hypothesis 7*, which predicted that increasing frequency of both physical and psychological abuse would be associated with increasing levels of peritraumatic dissociation, was only partially supported. Peritraumatic dissociative experiences were not related to multiple exposures to traumatic stressor, or number of abusive relationships

7.4.4 The relationship of Domestic Violence and Current Symptoms

Frequency of physically and psychologically abusive behaviours were correlated with all symptom measures in a positive direction. There were significant moderate to large correlations between ABI Psychological abuse and IES-R symptoms of Intrusion ($r=.49$, $p<.05$), Avoidance ($r=.46$, $p<.05$), and Hyperarousal ($r=.53$, $p<.05$). A large correlation was found between ABI Psychological abuse and IES-R Total score ($r=.56$, $p<.01$). This suggests that higher frequency of psychological abuse in the relationship is associated with higher levels of symptoms of intrusion, avoidance and hyperarousal.

ABI Physical abuse was strongly correlated with IES-R Intrusion subscale ($r=.51$, $p<.05$),and moderately associated with IES-R Hyperarousal ($r=.48$, $p<.01$) and IES-R Total score ($r=.49$, $p<.05$). A moderate correlation was found between ABI Physical abuse and IES-R Avoidance symptoms although this did not reach significance ($r=.31$, $p>.05$). Both ABI Physical and Psychological Abuse scores were strongly correlated with all M-PSS-SR subscales. High levels of psychological abuse were associated with higher levels on M-PSS-SR Frequency ($r=.54$), Severity ($r=.53$) and Full-Scale scores ($r=.54$) reaching $p<.05$ level of significance . The relationship between ABI Physical abuse M-

PSS-SR Frequency, Severity, and Full-Scale scores revealed slightly higher correlations than ABI Psychological Abuse (r=.55, .54.55, p<.01).

However, neither frequency of psychological abuse or physical abuse were significantly related to PTSD symptoms as measured by the CR-PTSD scale (r=32, p>.05; r=.29,p>.05) respectively. Nor was frequency of psychological and physical abuse significantly related to general symptoms of distress as measured by the GSI (r=.33, p>,05; r=.31, p>.05) respectively. However, higher frequency of psychologically abusive behaviours used by the respondent's former partner was significantly and positively related to symptoms of anxiety (r=.43, p<.05) and levels of interpersonal sensitivity (r=.41, p<.05) as measured by the SCL-90-R subscales. Frequency of physical abuse inflicted by respondent's former partner was significantly and positively associated with anxiety (r-.44, p<.05), phobic anxiety (r=.40,p<.05) and somatization (r=.38, p<.05) subscale scores.

Overall, support was provided for *Hypothesis 8*, that increasing frequency of abuse experienced in the relationship would be associated with higher levels of PTSD symptoms. *Hypothesis 9,* which predicted that increased levels of abuse would also be associated with higher levels of general psychopathology was partially supported.

Because time elapsed since the time of the traumatic event has been shown to be inversely related to level of distress in previous research, this variable was correlated with the four measures of symptom distress. However, *Hypothesis 10,* which predicted that length of the abusive relationship and time elapsed since separating from the abusive relationship would be positively and negatively associated with levels of PTSD symptoms respectively was not supported in the current data (r=-.06 -.19 and r=-.03 -.16) respectively. Significant positive correlations were found between age, length of relationship and number of children in respondents care at the time of the abusive relationship (r=.51 - .70, p<.05).

7.4.5 The Relationship of Peritraumatic Dissociation and PTSD

The primary aim of this thesis was to investigate the relationship between peritraumatic dissociation experienced at the time of the abusive relationship and current symptoms of PTSD (*Hypothesis 11).* The initial analysis consisted of correlations to determine if level of peritraumatic dissociation was associated with levels of PTSD symptoms, and general symptoms of distress as measured by the GSI. Participants were then split into PTSD cases and non-cases as determined by the CR-PTSD scale, and MANOVA was performed to detect differences between the two groups.

The PDEQ total scores were associated with measures of PTSD symptoms and the GSI in a positive direction, suggesting that greater levels of peritraumatic dissociation are associated with greater levels of psychological symptoms. Significant correlations were found between dissociative experiences and most measures of PTSD symptoms. On the IES-R, PDEQ total scores were moderately and significantly related to IES-R Total ($r=.44, p<.05$) and symptoms of Avoidance ($r=.45, p<.05$). The PDEQ was moderately but not significantly related to symptoms of Intrusion ($r=.35, p>.05$) and Hyperarousal ($r=.34, p>.05$) on the IES-R. Level of dissociation at the time of the abusive relationship was strongly correlated with the severity of PTSD symptoms as measured by the M-PSS-SR Severity subscale($r=.56, p<.01$), and M-PSS-SR Full-scale scores ($r=.53, p<.05$). A moderate correlation was found between PDEQ and M-PSS-SR Frequency scores ($r=.46, p<.05$). This suggests that higher levels of peritraumatic dissociation are more strongly associated with the severity of PTSD symptoms than the frequency of PTSD symptoms experienced. PDEQ was moderately and significantly related to continuous scores on the CR-PTSD ($r=.46, p<.05$). These findings provide support for *Hypothesis 11,* that increasing levels of dissociation at the time of the relationship would be significantly related to increasing levels of PTSD symptomatology.

Interestingly, the strong correlations were found between PDEQ total score and general symptoms of distress as measured by the GSI ($r=.54, p<.01$). Total PDEQ scores were associated with all SCL-90-R subscales including anxiety ($r=.58, p<.01$); hostility ($r=.54, p<.01$); psychoticism ($r=.54, p<.01$); depression

(r=.49, p<.05); interpersonal sensitivity (r=.48, p<.05); phobic anxiety (r=.44, p<.05); paranoid ideation (r=.40, p<.05); somatization (r=.39, p<.05); and obsessive compulsive (r=.39, p<.05).

7.5 Comparing PTSD and non-PTSD groups.

A one-way between groups multivariate analysis of variance (MANOVA) was performed to investigate differences between CR-PTSD cases and non-cases on measures of PTSD symptoms, general psychopathology, peritraumatic dissociation, frequency of physical and psychological abuse, respondent's age, time since separating from the abusive relationship, and number of exposures to trauma. Length of the abusive relationship was not entered into the equation due to missing data. The independent variable was CR-PTSD group status. The dependent variables entered included ABI Psychological and Physical abuse scores; PDEQ total score, M-PSS-SR Severity, Frequency and Full Scale scores, IES-R Total and Intrusion, Avoidance, and Hyperarousal subscale scores. Levene's test for equality of variances was non-significant and therefore the assumption of homogeneity of variances was not violated. The MANOVA for the two groups revealed statistically significant differences between the PTSD cases and PTSD non-cases on the combined dependent variables: Wilks' Lambda = .064, F(7,14) = 7.27, p<.01. The mean scores for PTSD cases and non-cases on predictor and outcome measures are presented in Table 21.

Inspection of the mean scores indicated that the PTSD group reported higher levels of symptomatic distress on all symptom measures, physical and psychological abuse, and peritraumatic dissociation and number of abusive relationships. Mean scores for time elapsed since separating from the abusive relationship was higher for the PTSD non-case group and. Using Bonferroni correction (alpha level of p<.001) to guard against Type I error, ABI Physical and Psychological abuse, respondents age, time since separating from the abusive relationship, and number of exposures to serious traumatic experiences did not reach statistical significance. In support of *Hypothesis 11* which predicted that higher levels of dissociation at the time of trauma would be associated with higher levels of current PTSD symptoms, the PTSD group

showed higher overall levels of peritraumatic dissociation that did the PTSD non-cases F (1,20)=17.15,p=.001, partial eta squared =.46, explaining 46% of the variance in CR-PTSD scores.

Table 21. Multivariate analysis of variance for PTSD cases and non-cases

Variable	CR-PTSD CASE (N=7)		CR-PTSD NON-CASE (N=15)		F
	M	SD	M	SD	df (1,20)
ABI Psychological Abuse	3.53	.56	2.83	.65	6.011*
ABI Physical Abuse	2.78	.69	2.13	.41	7.566*
Peritraumatic Dissociation	3.57	.91	2.11	.70	17.152***
Global Severity Index	1.66	.54	.47	.25	51.492***
IES-R Intrusion	2.57	.73	1.14	.62	22.896***
IES Avoidance	2.21	1.11	1.05	.68	9.423**
IES-R Hyperarousal	2.33	.63	1.08	.89	11.245**
IES-R Total	2.38	.71	1.09	.54	22.523***
M-PSS-SR Frequency	31.00	9.26	13.60	5.77	29.502***
M-PSS-SR Severity	38.57	11.25	11.40	6.94	34.091***
M-PSS-SR Full Scale	69.57	20.09	25.00	12.27	41.864***
Time elapsed	18.57	16.65	35.60	41.69	1.07
Number of traumatic events	3.71	2.29	3.40	1.96	.111
Age	36.57	9.47	39.00	9.72	.303

*<.05, **p<.01, ***p<.001

7.6 Chapter Summary

In sum, descriptive and inferential statistics were used to describe characteristics of the sample including attributes of the abusive relationship and abuse history, and to test the research hypotheses. Results of the analyses performed supported most but not all of the research hypotheses. A significant proportion of women in the sample, displayed symptoms of PTSD as well as symptoms of general psychopathology. There was strong support for the primary research hypothesis, that peritraumatic dissociation would be strongly associated with levels of posttraumatic stress symptoms. The findings of this study are discussed in detail in the following chapter.

8.0 Chapter Overview

The overall findings discussed in this chapter are the result of exploratory research. The primary goals of the study were to determine the extent of PTSD symptoms reported by a community sample of women who have experienced domestic violence, and to examine whether dissociation at the time of the abusive relationship was associated with these symptoms. Although only a small sample size was obtained, there were some interesting and informative findings. Results are firstly discussed in relation to the nature and experience of domestic violence reported by respondents using both qualitative and quantitative information gained. The chapter then considers the results in relation to the degree to which the research hypotheses were supported. Following this is a discussion of the limitations of the study, recommendations for further research and conclusions.

8.1 Experience of Domestic Violence

8.1.1 Qualitative Information

Information regarding characteristics of the sample and the experience of abuse was obtained through sociodemographic questionnaire developed by the author. The women who participated in the study made up a heterogeneous group, ranging in educational qualifications, annual income, and occupational variables. This is quite noteworthy as an illustration that domestic violence crosses age, ethnic, educational and socioeconomic boundaries. Information was then sought about the nature of the abusive relationship and abuse history based on pertinent issues highlighted in the literature. There were some interesting findings that will add to the literature regarding the nature of domestic violence in New Zealand. These are discussed below under the following sections: children, abuse since separation, and repetition of harm and revictimisation.

8.1.2 Children

The majority of respondents (81.8%) indicated that they had children in their care at the time of the abusive relationship. Of these, 41.2% of respondents reported that the abusive partner was also physically or emotionally abusive to these children. This finding supports the literature reporting a high correlation between partner abuse and child abuse. For example, Walker (1984) in interviews with 400 battered women reported that 53% of the fathers also abused their children. Straus and Gelles (1990) in a National survey of over 6000 American families reported that 50% of the men who frequently assaulted their wives also frequently abused their children. Furthermore, O'Keefe (1994) found a relationship between the amount of husband to wife violence witnessed and father-child physical abuse.

Analysis of the present data also established that all 42 children had either witnessed or heard violence perpetrated by the respondent's partner. Maxwell (1994) noted in her study, that when comments were made on the emotional reactions of the children who were exposed to domestic violence, distress and fear were almost universally recorded. Maxwell also notes that violence is only the first part of a violent episode and potentially traumatic experience. In the present sample, almost all of respondent's partners were arrested and taken into police custody. Children were likely to have also watched their caregiver, whether victim or perpetrator, being interviewed by the police. Research increasingly suggests that children who have been abused or have witnessed domestic violence demonstrate difficulties in a number of areas including health problems, cognitive deficits, adolescent hostility, and difficulties in adult relationships with the opposite sex (Maxwell, 1994). Child witnesses to domestic violence have also been found to exhibit more aggressive, antisocial, fearful and inhibited behaviours, and to also have lower social competence (Jaffe, Wilson, & Wolfe 1986; Wolfe, Zak, Wilson, & Jaffe, 1986).

One consequence of witnessing domestic violence is the traumatic stress and anxiety in children themselves (Mitchell & Finklehor, 2001). Children who have witnessed domestic violence have also been found to show increased levels of anxiety, depression, temperamental problems, less empathy and self-esteem

than children who have not witnessed domestic violence (Holden & Ritchie, 1991; Hughes, 1988). The widespread prevalence of partner violence and its association with negative impacts on children contain an important message for public policy. The question is raised about how much violence towards children goes unrecorded, unrecognised and overlooked. Agencies and professionals involved in domestic violence intervention should make sure they also inquire about children's exposure to violence (Humphreys, et al., 2001).

It has also been hypothesized that children who have witnessed domestic violence may carry violent and violent tolerant roles into their adult intimate relationships (Walker, 2000). Learning theory predicts that children may be socialised into the acceptance of the use of violence or victimisation (Jaffe, Wilson, & Wolfe, 1986; Mitchell & Finklehor, 2001). Twenty-seven percent of respondents in the current study reported that their father/male caregiver was physically or emotionally abusive towards their mother/female caregiver when they were growing up. Whether this does or does not support the 'Generational Transmission of Violence' hypothesis is equivocal however.

8.1.3 Abuse since separating

The domestic violence literature strongly stresses that violence and abuse do not necessarily stop when the relationship ends (e.g. Strube & Barbour, 1984). Shepard and Campbell (1992) suggest this is particularly true if contact is maintained through child visiting. Data in the present research strongly support this finding with 81.8% of women indicating that they felt their former partner had been abusive towards them since permanently separating. In addition, the majority of the sample (71.7%) indicated that they had taken out protection orders against the abusive partner. It is unknown whether respondents obtained protection orders as a result of continued abuse after separating, or whether they were abused when the protection order was already in place. Nevertheless, this has implications for the widely held belief that women are safe once they leave the abusive relationship, and the need for ongoing services to provide protection and support for domestically abused women and their children.

8.1.4 Repetition of harm and revictimisation

In research, the term 'revictimisation' has mostly been used to refer to the experience of suffering both childhood sexual abuse and later sexual or physical abuse as an adult. Research has consistently shown that women who are sexually abused as children are significantly more likely to experience abuse as adults as compared to women who have not had such an experience in childhood (e.g. Byrne, Resnick, Kilpatrick, Best, & Saunders, 1999; Messman & Long, 1996; Follette, et al., 1996; Walker, 2000). Herman (1993) notes that the risk of rape, sexual harassment, and spouse abuse, though very high for all women, is approximately double for survivors of childhood sexual abuse. Although it is important to understand and recognize the occurrence of revictimisation and the negative impact this may have on an individual's adjustment to current traumatic exposure, it was not the focus of the present research. However, data in the present study revealed that 27.3% of respondents indicated on the TSS that they were sexually abused as a child.

Recurrent victimization was also assessed by asking respondents how many relationships they have had where their partner was abusive towards them. Although some revictimisation was expected, it was astonishing to find that 50% of respondents indicated more than one abusive relationship. Indeed, one respondent indicated she had experienced four or more abusive relationships. That abused women go from one abusive relationship to another is strongly supported by this data, and has also been reported by others (e.g. Pagelow, 1993 -cited in Walker, 2000). However, Walker contends that rather than being a pattern for women victims of battering, it seems more likely to be the pattern for the perpetrators of violence, who have been found to frequently transfer their dependency from one woman to another where violence ultimately begins again. Respondents were also asked whether they had suffered abuse by others whilst in the abusive relationship. Four respondents (18.2%) indicated that while in the relationship with the abusive partner, they suffered abuse by others. That women are the target of such abuse both by their intimate partners as well as others is also of great concern.

Herman (1993) notes that this repetitive phenomena have been widely documented to be sequelae of severe and chronic interpersonal trauma. Herman asserts that these repetitive phenomena call for great care in interpretation, and has proposed that concepts of masochism or repetition compulsion might be more usefully supplanted by the concept of a complex traumatic syndrome that she has called 'Complex PTSD'. Complex PTSD as discussed in Chapter Three, is described on three dimensions of 1) multiple symptomatology; 2) character traits; and 3) vulnerability to repeated harm where pathological relationship and identity formations are noted to occur.

8.1.5 Quantitative Information

A consistent finding in traumatised groups, including domestically abused women, has been that level of exposure to the traumatic stressor is related to both immediate and long-term psychological sequelae (e.g. Follingstad et al., 1991; March, 1993). Therefore, quantitative information about the presence and frequency of a range of psychologically and physically abusive behaviours perpetrated by the respondent's former partner was gained through the ABI (Shepard & Campbell, 1992). In agreement with previous research (e.g. Neufeld, et al., 1999) a significant relationship was found between psychological abuse (which involved such behaviours as ongoing threats, intimidation, and humiliation), and physical abuse (which involved such behaviours as punching, slapping, kicking, use of a weapon and sexual abuse). As anticipated, the frequency of psychological abuse was found to be related to the frequency of physical abuse.

Mean scores were calculated for both physical and psychological subscales and percentages were calculated for the frequency of each item to further explore the extent of abusive behaviour inflicted. The data indicated that psychological abuse occurred more frequently than did physical abuse. Overall, mean scores suggest that physical abuse occurred "rarely" to "occasionally" in the current sample, and psychological abuse was reported to have occurred "occasionally" to "frequently". The levels of abuse reported by respondents in the present study were higher in comparison to similar studies investigating domestic violence (e.g. Russell & Jory, 1997; Shepard, 1992; Shepard & Campbell,

1992). As Russell and Jory note, it would be valuable to compare the level of abuse found in this sample against established norms to determine whether the abuse levels were low, moderate, or high. How typical the levels of abuse sustained by participants in this study is therefore difficult to assess. While high values could be expected to apply to very abusive persons, it is not known whether high scores are ever obtained. Furthermore, as with all brief questionnaires, the ABI may lack a satisfactory range of questions of sufficient sensitivity to measure adequately anything but the most extreme or obvious forms of abusive behaviour.

Nevertheless, the current study showed extremely high rates of psychological and physical abuse as defined by the ABI items. All respondents indicated that their former partner had called them names and/or criticized them; tried to keep them from doing something they wanted to do; and threw, hit, kicked or smashed something. All respondents also indicated that their former partners had used at least two forms of physically abusive behaviours. Over two-thirds of respondents indicated that their partner had kicked and thrown them around, and over one-third reported that a knife, gun or other weapon was used against them. Of great concern was the extent of sexual assault reported by respondents. Over three-quarters of respondents reported they had been pressured to have sex in a way that they didn't like or want. This was reported to have occurred "frequently" or "very frequently" for over one third of respondents. Furthermore, over half of respondents indicated they had been physically forced to have sex.

Increasingly it has been recognised that a wide array of physically and psychologically abusive behaviours are used to terrorise victims of domestic violence. In order to capture the context of abuse more fully, respondents were also asked about other physically abusive behaviours (e.g. burning; restraint) and psychologically abusive behaviours (e.g. threats of abuse towards family or pets) that were not listed in the ABI. Over half of respondents indicated that their former partner had used 'other' physically abusive behaviours, and over three-quarters 'other' psychologically abusive behaviours.

A shortcoming of the ABI and some other measures of partner abuse (e.g. CTS) is that they do not address the outcomes of the violence sustained. To address this issue in the current study, two additional items were added to the ABI, and are worthy of note. Over two-thirds of respondents reported that they were hurt so badly that they needed medical attention or hospitalisation, and over one-third of respondents reported that their former partner had stopped them from gaining medical attention or medication. It has been consistently documented that a large proportion of women in abusive relationships do not seek medical examination and treatment (Dutton, 1992a; Hendricks-Mathews, 1993). That women are prevented from seeking medical attention by their partners is very disturbing.

8.2 Exposure to other trauma

Several epidemiological studies have indicated that a high proportion of people in the general population have been exposed to one or more traumatic events in their lifetime (Flett et al., in press; Norris, 1992). For example, Resnick and colleagues (1993) reported lifetime prevalence rates for trauma in their sample of 4008 women as: physical assault, 39%; completed rape, 32%; other sexual assault, 31%; homicide of a family or friend, 22%; any crime victimisation, 26%; and non-crime trauma such as natural and manmade disasters, accidents and injuries, 9%. *Hypothesis 1 predicted that a significant number of women in the sample would report exposure to multiple traumatic events over their lifetime as measured by the TSS.* This hypothesis was strongly supported in the current study. Results indicated that not only were women in the study exposed to the traumatic experience of partner abuse, but the overwhelming majority (95.5%) also reported exposure to one or more traumatic event. Indeed, only one participant indicated that they did not experience a traumatic event in their lifetime. One problem in interpreting this data however, is that the questionnaire did not specify whether the traumatic events listed included or excluded the abusive relationship and abusive behaviours perpetrated by respondents partners. Indeed, a significant relationship was found between the number or exposures to traumatic events and the number of abusive relationships experienced. Only half of the sample indicated that they had experienced a domestic assault. It is possible that this really is the case, and that half of

respondent's former partners used more psychologically abusive behaviours, or more minor acts of physical abuse. However, it is more likely that physical assault was more common than reported as the overwhelming majority of respondents were recruited by the fact that the domestic violence incident involved the arrest of their former partner. Moreover, that it is more likely that police arrest of a perpetrator follows physical assault. Furthermore, the data gained from the ABI indicated that all women in the sample reported experiencing at least two physically abusive behaviours perpetrated by their former partners. It is possible that women in the sample did not perceive these physically abusive behaviours as being "seriously beaten or attacked by a member of their family" as described by the TSS.

The most commonly reported traumatic event experienced in this sample was somebody close to the respondent experiencing a violent assault, serious accident or serious injury. Although this it was not specified, this finding is possibly related to the strong association between partner abuse and child abuse that has been reported in the literature, and indeed in the present data. No respondents reported being engaged in military combat. This is not surprising given that New Zealand has relatively little involvement with international military operations, and very few women have traditionally been involved in combat.

One-half of the sample reported that they had experienced adult sexual assault on the TSS. This differs from the information obtained on the ABI where over three quarters of the sample reported that their partner pressured them to have sex in a way they didn't like or want; nearly two-thirds reported that their partner physically forced them to have sex; and over one-fifth reported that their partner had physically attacked the sexual parts of their body. This discrepancy, as mentioned above may be due to not differentiating between the abuse sustained from a partner, and abuse sustained from somebody else. Another possibility is that respondent's perceptions of what constitutes sexual assault may narrowly defined. Many individuals tend to define sexual assault and rape narrowly because of cultural beliefs that perpetrators are total strangers (Resnick, Kilpatrick, & Lipovsky, 1991). Therefore, women in the sample may

not have considered the sexual abuse identified by the ABI items as sexual assault, by the fact that the perpetrator was their intimate partner.

That women reported exposure to a number of traumatic events was not surprising given the high rates of traumatic exposure found in general population samples (e.g.Bernat, et al., 1998; Norris, 1992). The extent of lifetime exposure to serious traumatic events was higher in this domestically abused sample when compared to women in the New Zealand general population (Flett, et al., in press). For example, Flett and colleagues reported a rate of 60.1% lifetime exposure to serious traumatic events, compared to 95.5% of the present sample. Furthermore, a substantially higher percentage of women in the current study reported exposure to all traumatic events surveyed by the TSS, with the exception of military combat. These results however, may be an artefact of the small sample size in the present study.

Given the evidence that exposure to multiple traumatic events is high in community sample, this was also assessed in the present sample. The level of exposure to multiple traumatic events was also staggering, with 80.9% of those reporting exposure to trauma, reported having experienced two or more traumatic events in their lifetime. Indeed, one respondent indicated experiencing eight different serious traumatic events. This is somewhat more in line with Flett and colleagues (in press) findings in which a rate of 75% was found. The complexity of traumatic-event histories found in community samples, and perhaps even more complex histories found in abused women samples suggests that it is essential to screen for this history. Dutton (1993) notes that a comprehensive assessment must consider that abused women may be responding not only to the stress of previous and perhaps ongoing threats of abuse by their former partners, but also the a range of other possible stressors, including those that may also follow on from the abuse (e.g. loss of home or income).

8.3 Peritraumatic Dissociation

Previous research (e.g. Bremner, et al., 1992; Carlson & Rosser-Hogan, 1991; Marmar et al., 1994; Spiegel & Cardena, 1991; Speigel, et al., 1988) has

consistently reported high levels of dissociation in various trauma groups. The data in the present study were consistent with *Hypothesis 2 which predicted that women in the sample would report significant levels of dissociation during the time of the abusive relationship.* An examination of the range of scores found in the present data indicates that some participants experienced substantial levels of dissociation. The most commonly reported dissociative experience was confusion and difficulty making sense of what was happening, which was endorsed by over 85% of the sample. Furthermore, the present sample displayed mean scores well above those obtained in samples of other trauma populations (e.g. Marmar et al., 1994; Marmar, Weiss, Metzler & Delucchi, 1996; Tichenor, et al., 1996) using various versions of this measure. For example, Weiss and colleagues (1995) reported levels of peritraumatic dissociative experiences to be low in absolute magnitude averaging between 'not at all true' and 'slightly true', whereas this sample averaged between 'slightly true' and 'somewhat true'. That women experience high levels of dissociation, may have far-reaching implications, especially in regard to understanding why women may remain in abusive relationships. However, this is an area that has yet to be fully explored.

Hypothesis 7 predicted that level of exposure/frequency of abuse as measured by ABI Physical and Psychological subscales would be positively related to levels of self-reported dissociation at the time of the abusive relationship was only partially supported in the present data. Higher levels of peritraumatic dissociative symptoms experienced at the time of the abusive relationship was significantly related to the frequency of psychological abuse perpetrated by respondent's former partners, but was not related to the frequency of physically abusive behaviours.

This was somewhat surprising, as the literature on dissociation has emphasised gross trauma as the critical pathogenic factor in the development of dissociation (Rodin, de Groot, & Spivak,1998). For example, research on childhood trauma has found that more severe, repeated, and threatening physical, sexual or emotional abuse is related to higher rates of dissociation at the time of abuse (Gershuny & Thayer, 1999). While some investigators have reported significant

correlations between traumatic event exposure and levels of peritraumatic dissociation (e.g. Marmar, Weiss, Metzler & Delucchi, 1996), others have failed to find an association between dissociation and the severity of traumatic experiences (e.g Shalev, et al., 1996).

Dissociation is commonly described as a coping mechanism by which individuals attempt to remove themselves or manage an emotional experience that is too intense or distressing (Spiegel & Cardena, 1991; Rodin, de Groot, & Spivak, 1998). Rodin and colleagues suggest, that repetitive subtle trauma, particularly attunement and responsiveness may have profound effects on an individual's capacity to organise affects and perceptions. Perpetrators of domestic violence (and other chronic repetitive trauma) establish control over their victims by using systematic and repetitive infliction of psychological trauma to which women often suffer repetitive emotional injury. The reality for many women in abusive relationships is that they are held in a state of constant terror, in a state of captivity where they are unable to flee under the control of the perpetrator. In situations of captivity such as this, Herman (1993) contends that the perpetrator becomes the most powerful person in the life of the victim, and the psychology of the victim is shaped by the actions and beliefs of the perpetrator. As a result, confusion, disorientation, feelings of unreality, detachment from the events or from one's body, and related dissociative phenomena are mostly likely triggered (Marmar, Weiss, Metzler & Delucchi,1996).

Through the use of dissociation, voluntary thought suppression, minimisation and sometimes denial, women may learn to alter their unbearable reality. For example, alterations in times sense may involve the obliteration of past negative behaviours and the impact of these. Mind fragmenting operations may be used by abused women in order to preserve the 'delusion of a good and loving partner' (Herman, 1993). This analysis is inline with Walker's (1979,1984, 2000) suggestion that it is the on-going process of abuse, rather than the severity of the violence itself that has a lasting impact on the victim, and the personal accounts of women who frequently report that it is the psychological

abuse rather than physical abuse that is more distressing and damaging (e.g. Walker, 1979; Wayland, et al., 1991).

Age was not significantly correlated with level of self-reported dissociation in the present sample. This is inconsistent with Marmar and colleagues (Marmar et al., 1994; Zatzick, et al., 1994) who found greater dissociation levels in younger emergency services personnel and younger Vietnam veterans respectively, and the suggestion that dissociative tendencies decline with age in the general population.

8.4 Posttraumatic Stress Disorder

A central aim of the present study was to establish the prevalence of PTSD symptoms displayed by a community sample of women who have experienced domestic violence. The reported rates of PTSD found in domestically abused samples have varied considerably, with much of the variation likely attributable to the nature of the samples, methodologies, and assessment instruments used. The current study used three measures (IES-R; M-PSS-SR; CR-PTSD) to assess the level of PTSD symptoms. Using the combination of measures, information was gained regarding the presence and degree of distress from intrusion, avoidance and hyperarousal symptoms; the frequency and severity of PTSD symptoms; and PTSD caseness was defined. Although it is acknowledged that the optimal approach in the assessment of PTSD is a multi-method approach (see Briere, 1997; Wilson & Keane,1997) all three instruments have been identified in the literature, as valid and reliable measures.

Hypothesis 3 which predicted that a significant proportion of the sample would display symptoms of PTSD was supported in the current data. Using the suggested cut-off of 46 for community samples on the M-PSS-SR, 27.3% of the sample were identified as PTSD cases. The CR-PTSD scale identified 31.9% of the sample as PTSD cases. The rates of PTSD reported in the current sample is comparable to rates reported in previous research of domestically abused women. In community samples of abused women, rates have ranged from 33% to 58% (Astin, et al., 1993; Astin, et al., 1995; Houskamp & Foy,

1993). Rates of 31% to 60% have been reported in abused women seeking help from domestic violence programs while living at home (Gleason, 1993; Houskamp & Foy, 1993). Rates of 40% to 89% have been reported in women living in a battered women's shelter (Gleason, 1993; Kemp, et al., 1991; West, et al., 1990).

Data from the IES-R indicated that overall, women in the sample currently suffered "more than a little bit", to "moderate distress" from intrusive, avoidance and hyperarousal symptoms. Distress from intrusion symptoms were endorsed more commonly by respondents followed by hyperarousal and avoidance symptoms. Using the M-PSS-SR as a continuous measure, 63.64% of women scored above cut-off on the Frequency, and 22.73% score above cut-off for severity of symptoms. Overall respondents as a whole reported that they experienced symptoms of PTSD; about half the time or two to four times a week. The severity of PTSD symptoms, on average, was reported as moderately distressing by the current sample as measured by the M-PSS-SR. The frequency of PTSD symptoms reported by the current sample are three times that found in Falsetti and colleagues (1993) community sample. Although the severity of symptoms reported by this sample were on average lower. Of the six participants that constituted the high symptoms group, only one of these did not also reach the cut-off point for severity on the M-PSS-SR.

The pattern that emerges from the data is that many women had a high frequency of symptoms but these symptoms were not reported to be overly severe. On the other hand some women reported low frequency of symptoms, but when they had these symptoms they were severe. As can be seen the pattern of symptoms of PTSD reported by victims of violence can greatly vary.

8.5 General Psychopathology

It is recognised that women who have suffered domestic violence are at risk of a number of psychological problems as well as PTSD. Indeed, prolonged abuse, such as that endured in a violent relationship, has been found to foster the development of an exceptional array of psychological and psychiatric symptoms including in particular major depression, anxiety disorders and

substance abuse disorders (Dutton, 1992; Herman, 1992; Herman, 1993). *Hypothesis 4 predicted that a significant proportion of the sample would display multiple symptoms of psychological distress, particularly anxiety, depression, somatisation and other symptoms as measured by the Global Severity Index (GSI), and the nine subscales of the SCL-90-R.*

In support of this hypothesis and consistent with previous research, serious emotional distress was reported on many of the SCL-90-R indexes. Raw scores were converted to t-scores to examine psychological symptoms in relation to normative data. Clinical significance was determined if participants had a t-score of 70 or greater. Respondents mostly reported clinically significant levels of anxiety, followed by depression, interpersonal sensitivity, phobic anxiety and psychoticism. This pattern is similar to Dutton's (1992a) findings. Over 18% of respondents were classified as symptomatic on the GSI. Furthermore, this sample reported higher levels of general psychological distress than some other trauma populations such as, emergency services personnel, but lower than other samples of battered women. This is perhaps not surprising, given the differences between single incident trauma and the often chronic and repetitive interpersonal trauma, characteristic of violent relationships.

8.6 Comorbidity

Related to the wide array of symptoms often observed in victims of trauma such as domestic violence, PTSD has been found to be strongly comorbid with other disorders. If an individual meets criteria for PTSD, it is likely that they will also meet DSM-IV criteria for one or more additional diagnoses (Davidson & Foa, 1993; Kessler et al., 1995). Comorbid diagnoses most often include major depression, dysthymia, alcohol and substance abuse disorders, anxiety disorders, personality disorders and suicidal ideation (e.g. Kessler et al., 1995). Indeed, it appears unusual for PTSD to exist as an isolated disorder (Adshead, 2000). Furthermore, although depressive and anxiety disorders are separate disorders, many of the symptoms overlap significantly with those of PTSD. For example, many of the avoidance symptoms of PTSD, such as general emotional numbing, overlap with symptoms associated with depression, and a

number of arousal symptoms overlap with those found in anxiety disorders (Dutton & Goodman, 1994; Kemp, et al., 1991). Based on these findings *Hypothesis 5 predicted that PTSD symptoms would be positively correlated with general psychopathology.* In agreement with previous research, the results in the current study found support for this hypothesis.

8.7 Cumulative impact of trauma

Exposure to multiple traumatic events (Breslau, 1998; Follette,et al., 1996; Vrana & Lauterbach, 1994) and re-victimisation (Byrne, et al., 1999) have been found to be associated with more symptoms and higher rates of PTSD. The cumulative effects of experiencing multiple traumatic events on PTSD symptomatology have been documented with a variety of trauma populations and community samples (Bernat, et al., 1998). It is thought that the experience of prior trauma may sensitise individuals to the effects of later trauma by adding to their sense of life being difficult, full of losses, and out of control. *Hypothesis 6 predicted that cumulative trauma, as measured by the number of traumatic events exposed to over a respondent's lifetime as measured by the TSS, would be positively correlated with levels of self-reported PTSD symptoms.* In the present sample, lifetime exposure to multiple traumatic events was not related to current levels of general psychopathology as measured by the GSI, nor were differences found between women classified as PTSD cases and PTSD non-cases for number of traumatic stressors experienced over their lifetime. Hypothesis 6 therefore was not supported. This finding is also inconsistent with Astin and colleagues (1995) who found significantly higher mean multiple trauma rates for battered women classified as PTSD positive than women classified as PTSD negative. This discrepancy is possibly due to differences in methodology and measurement instruments used.

8.8 Level of exposure and PTSD

Hypothesis 8 predicted that level of exposure/frequency of abuse as measured by ABI physical and psychological subscales would be associated with increased levels of PTSD symptoms. A consistent finding in trauma research is that severity, intensity or level of exposure to the traumatic event is related to

greater risk of developing PTSD (Foy, 1992; March, 1993). The severity and frequency of domestic abuse has also been found to be positively correlated with PTSD symptomatology (e.g Astin, et al., 1993; Houskamp & Foy, 1991; Kemp, et al., 1991). Results of the current study supported Hypothesis 8 and are consistent with previous research demonstrating a significant association between the frequency of abusive behaviours and PTSD symptomatology. Furthermore, women classified as PTSD cases reported more frequent physical and psychologically abusive behaviours than women not classified as PTSD cases, although between group differences did not reach significance using Bonferroni correction to guard against Type I error.

Few studies that have examined partner abuse and PTSD have differentiated between types of abuse. Most studies have limited their investigation to physical violence or combined threats and acts of violence (Vogel & Marshall, 2001). For example, Astin and colleagues (1995) limited their investigation to level of physical aggression and overall conflict level as measured by a modified version of the CTS. Of the studies that have differentiated types of abuse, varying rates and severity of PTSD symptoms were found. For example, Kemp and colleagues (1995) found fewer psychological abused than physically abuse women met criteria for PTSD. Vitanza and colleagues (1995) found that psychologically abused women who also sustained severe violence reported more PTSD symptoms than those who reported moderate or no violence. Furthermore, some investigators (e.g Thompson, et al., 1999) have found that physical partner abuse, but not non-physical partner abuse was associated with an increased risk for PTSD.

8.9 Level of Exposure and General Distress

Hypothesis 9 predicted that higher frequency of physical and psychological abuse would also be associated with higher levels of general symptomatic distress. This hypothesis was not supported in the current study, and is partly inconsistent with previous research, which has found a positive association between severity of abuse and measures of global distress. For example Kemp and colleagues (1991) found that extent of abuse was positively related to presence and degree of PTSD, depression, anxiety and overall symptoms

distress. While a significant relationship was not found between frequency of physical and psychological abuse and general symptoms, higher frequency of physically and psychologically abusive behaviours reported by respondents was significantly related to individual SCL-90-R indexes including anxiety, interpersonal sensitivity, phobic anxiety and somatization. Together these results support previous research showing a strong relationship between exposure to domestic abuse and severity of other psychological symptoms.

8.10 Length of relationship and time elapsed.

Hypothesis 10 predicted that the length of the abusive relationship and time elapsed since separating from the abusive relationship will be positively and negatively associated with levels of PTSD symptoms respectively. The length of time elapsed since permanently separating from their abusive partner ranged from 2 months to 11 years in the current sample. Previous research has noted that over time PTSD symptoms may diminish in many trauma victims (Blank,1993) and domestically abused women (Follingstad, et al., 1991; O'Keefe, 1998). For example, time elapsed since living with an abusive partner was found by O'Keefe (1998) to be negatively associated with current PTSD symptoms in his sample. Astin and colleagues (1993) found that 45% of the variance in PTSD symptomatology was predicted by recency of abuse, trauma exposure, and a number of other posttrauma adjustment variables. However, this hypothesis was not supported in the current data in which a significant correlation between time elapsed since permanently separating and level of PTSD symptoms was not found. Although, not reaching significance, MANOVA indicated that less time had elapsed since permanently separating for women classified as PTSD cases than women classified as PTSD non-cases.

Similarly, the duration of the traumatic event has been used as an indicator of the degree of exposure in previous research. In domestically abused women, the length of time that women have stayed in an abusive relationship has been examined as a measure of exposure to or chronicity of domestic abuse (e.g. Houskamp & Foy, 1991; Kemp, et al., 1991). The length of time in the abusive relationship reported by respondents in the current study ranged from nearly 1 ½ years to 36 years. However, being in the abusive relationship for a longer

time did not increase the extent of current PTSD symptoms or general psychopathology in the present sample. This in contrast to Houskamp and Foy (1991) findings where length of time in the violent relationship was significantly correlated with PTSD diagnostic status as assessed by the SCID (Spitzer & Williams, 1985) and Symptom Checklist (Foy, Sipprelle, Rueger & Caroll,1984). However, Vogel and Marshall (2001) note that relationship duration is not necessarily an adequate characterisation of chronicity of abuse, as abuse may have been present for only a proportion of the relationship. For example, the impact of abuse in a 5-year relationship would most likely differ depending on whether it had occurred across 5 years or 5 months. Furthermore, Kemp, Rawlings and Green (1991) found that length of the abusive relationship was least predictive of current symptomatology out of three measures of abuse exposure including extent of battery and distress due to battery. These authors suggest that this could be due to longer relationships having less extensive abuse. Consistent with this suggestion, the length of the abusive relationship was not associated with frequency of abuse reported by respondents in the present sample. However, an alternative hypothesis may be that women staying in the abusive relationship for longer periods have developed methods of coping which help control their symptoms of psychological distress

8.11 Peritraumatic Dissociation and PTSD

Retrospective reports of dissociation at the time of a trauma have been found to predict the subsequent development of PTSD in a variety of trauma populations (Bremner, et al., 1992; Marmar, et al., 1994). Although research has indicated a significant association between the traumatic experience of partner abuse and PTSD symptoms no studies were able to be located by the author, that have directly addressed peritraumatic dissociation as variable that might explain or account for this link. The current study expanded the study of the relationship of dissociation and PTSD to a sample of women who have experienced the trauma of domestic violence. *Hypothesis 11 predicted that greater dissociation (PDEQ) during the abusive relationship, as measured by the PDEQ would be positively associated with higher levels of traumatic stress symptoms.* In agreement with previous research examining other trauma populations,

Hypothesis 11 was supported in the current study. Results indicated that dissociation during the abusive relationship was significantly related to current PTSD symptom scores on most of the PTSD symptom measures. While a relationship was found between peritraumatic dissociation and symptoms of IES-R avoidance, this was not the case for IES-R symptoms of intrusion or hyperarousal. Peritraumatic dissociation was more strongly associated with overall PTSD symptoms as measured by IES-R and M-PSS-SR total scale scores. Peritraumatic dissociation was also significantly associated with the frequency of current PTSD symptoms, and was even more strongly correlated with the severity of current PTSD symptoms.

The findings of a strong relationship between peritraumatic dissociation and PTSD extends the results of previous studies (e.g. Carlson, & Rosser-Hogan, 1991; Koopman, et al., 1994; Marmar et al 1994). That avoidance symptoms were associated with peritraumatic dissociation, rather than intrusion and hyperarousal symptoms is consistent with research that has documented similar findings. For example, Griffin, Resick and Mechanic (1997) found that rape victims who dissociated during the event appeared to have more severe PTSD avoidance, intrusion and hyperarousal symptoms than rape victims that didn't dissociate, with the biggest difference being avoidance symptoms. Significant differences were also found between levels of peritraumatic dissociation reported by women classified as PTSD cases and non-cases. Women classified as PTSD cases reported experiencing higher levels of peritraumatic dissociation. In agreement with previous research, it appears that the tendency to dissociate during a traumatic event, constitutes a risk factor for subsequent PTSD. It has been suggested that posttraumatic stress reflects a failure to emotionally process a traumatic event, and that 'dissociation' appears to impede this processing. Several investigators (e.g. Griffin, et al., 1997) have theorised that whereas peritraumatic dissociation may be adaptive during a traumatic event, subsequent use of this mechanism for coping with feelings of distress when reminded of the trauma may lead to survivors' failure to process the trauma, and ultimately results in posttrauma reactions such as PTSD.

Interestingly, peritraumatic dissociation was more strongly associated with general psychopathology as measured by the SCL-90-R indexes. Indeed, strong correlations were found between levels of peritraumatic dissociation and all SCL-90-R subscales and GSI. Symptoms of anxiety followed by hostility, psychoticism and depression were most strongly associated. This finding is consistent with the view that dissociation is related to general psychopathology rather than specifically to PTSD (Foa & Hearst-Ikeda, 1996).

8.12 Limitations of the current study

While the research produced some interesting findings, these should be viewed with caution in light of several limitations. Caution must especially be exercised in interpretation of the results, due to the small sample size. The generalisability of the present results is limited by the reliance on a self-report, retrospective, cross-sectional design. Methodological issues relating to the sample, research design and assessment instruments are detailed below.

8.12.1 Sample

Firstly, the sample was relatively small. Although the response rate was expected to be low, overall, it was much lower than expected. Using the DVC client database, which alone receives approximately 70 domestic violence referrals from the Auckland City Police a week, of which about 15% also result in a callout following an arrest, it was expected that a much bigger sample would have been obtained. There are, however, several possible explanations for this. The high number of returned invitations with untraceable addresses is most likely due to the high mobility and disrupted life patterns found in women who have been abused (Saunders & Azar,1989). Often this is due to practical safety concerns, with women having to leave their homes, often several times as a result of the perpetrator of violence stalking or locating women's whereabouts, and thus putting them in danger of further physical abuse (Walker, 2000). Furthermore, women may not have felt safe participating in the research, especially given the findings that abuse often continues or escalates in the process of leaving an abusive partner (Browne, 1987). Indeed, this finding was supported in the current study with a high number women reporting abuse since permanently separating from their abusive partners. Another

possible explanation is that in many cases women choose to remain or go back to their abusive partners, thus excluding them from participation in this study. For example, Frude (1994-cited in Browne & Herbert, 1997) reported that half of the women that sought refuge for domestic violence continued their relationship with their violent partner. Also, of the invitations sent, an approximate 20% of these were estimated to be non-partner perpetrated family violence, thus reducing the actual sample pool.

The difficulties of recruiting participants in research of this type have been discussed by many experts in the domestic violence field and were outlined in Chapter Two (e.g.Saunders & Azar, 1989; Yllo, 1988). Domestically abused women may be reluctant to participate in research because of the perceived stigma associated with their victimisation; self-blame, non-acknowledgement and minimisation of abuse; or a reluctance to recall traumatic memories are but some of the possible explanations.

Nonetheless, the low response rate in this study raises questions about the stability of the data and the generalisability of the results. The ability to generalise the results of the study is also limited as the sample was not randomly selected. The sample was drawn mostly from police referrals to the DVC which resulted in the arrest of the perpetrator. However, domestic violence incidents reported to the police represent only a small proportion of domestic violence in the community. While participants in this study might not necessarily notified the Police themselves of the domestic violence incident, research indicates that only a small proportion of abused women seek police assistance. For example, Snively (1994) estimated that only 12.3% and Morris (1996) estimated that only 11% of victims of abuse sought police assistance. Furthermore, it is not possible to tell whether those women who chose to participate systematically differed from those who did not. However, the use of a community sample is strength of the current study, given that the majority of domestic violence research has examined shelter and treatment seeking abused women (Wayland, Roth, & Lochman, 1991).

Demographic data indicated that a heterogeneous group of women who have experienced domestic violence participated in the present study. Furthermore, this sample size is similar to several similar studies that have examined PTSD in domestically abused women (e.g. Gleason, 1993; Houskamp & Foy, 1991).

8.12.2 Research Design

A further limitation of the current research design is the reliance on mailed questionnaire to obtain quantitative information. Mail surveys have the advantage of simplicity of response, anonymity, economic data collection, and limited cost in time. However, as a consequence of obtaining quantitative rather than qualitative data the complexity of some issues may be underestimated. One advantage of quantitative research is that it is more generalisable, but is limited in terms of the depth of the data obtained. Thus, the mail survey method used in the present study undoubtedly failed to uncover other valuable information concerning the abuse encountered and the symptoms experienced by women in the sample.

The study may also be limited by its reliance on self-report questionnaire data. Although self-report surveys can provide valid reflections of psychopathology, this may have resulted in an under or overestimation of PTSD diagnosis. It is possible that the women in the study were biased in their reporting. In order to present themselves in the best possible light, participants may have exaggerated the severity of abuse and symptomatology. However, a concern in domestic violence research has traditionally been that violence is most likely underreported. This is likely due to the same reasons that victims of violence are reluctant to participate in research at all. Alternatively, respondents may not have identified some experiences as abuse.

It is possible that women's responses to the questionnaire were affected by retrospective recall bias, and due caution must be exercised in drawing conclusions, especially about exposure to domestic violence and peritraumatic dissociation. Memory decay and the reframing of events over time can lead to distortions in the way events are recalled. In some cases, participants had to

recall events, which may have occurred up to 36 years previously. Furthermore, the correlational research design means that causal relationships cannot be determined. Thus, while the findings of the present study indicate that relationships do exist between partner abuse, peritraumatic dissociation and PTSD symptomatology, the direction of causal relationships cannot be determined. Longitudinal data are required to understand causal relationships among variables and determine how PTSD symptoms may change over time.

8.12.3 Assessment Instruments

The selection of assessment instruments for the current study were determined by previous research in the field, practical considerations such as instrument availability, space allocation within the questionnaire, generalisability of overseas questionnaires to New Zealand culture, and the psychometric qualities of the instruments. However, the selection of assessment instruments is a potential source of limitations in any study (Vincent, 1994).

Most of the assessment instruments included in the questionnaire have been used in previous research involving domestically abused women or in association with PTSD research (e.g. Kemp, et al., 1991; Marmar et al., 1994; Shepard & Campbell, 1992). The questionnaire did include however, a number of revised instruments (e.g. IES-R; M-PSS-SR; PDEQ), which have not been used as often as their original versions. Knowledge gained from this research will no doubt inform the development of a questionnaire for further study.

As mentioned, domestic violence research has been hindered largely due to problems of defining and measuring the frequency, intensity and meaning of physical, sexual and psychological abuse. Research on partner violence has generally dealt with the measurement of these phenomena as a simple set of violent behaviours. The assumption is made that inquiring about a number of representative violent behaviours will provide adequate data for analysing levels of violence. However, the phenomenon of domestic violence is much more complex (Rhodes,1992).

The ABI was designed to address flaws in earlier questionnaires. For example, the CTS has been criticized widely as it fails to measure the outcome of violent acts and the context in which they occur. It has also been criticized for poorly conceptualized and constructed items that combine threatened, attempted and actual violence. Tolman (1989) also notes that the inclusion of items that address psychological abuse are also quite limited. The Index of Spouse Abuse (Hudson & McIntosh, 1981) has been criticised, as it does not include forms of indirect abuse. While the ABI overcomes some problems noted with other popular measures, it still fails to address the issue of context and outcomes of the abuse suffered. However, due to its brevity, its inclusion of a good range of physically and psychologically abusive behaviours, and face validity for New Zealand culture, the ABI was chosen as the most suitable measure for the current study.

Furthermore, the classification of PTSD caseness in the present study should not be viewed as a substitute for PTSD diagnosis. The diagnostic criteria for PTSD as outlined by the DSM-IV (APA, 1994) was not strictly adhered to in the present study. For example, Criterion A2, the subjective component of the stressor definition (that the individual's response involve intense fear, helplessness or horror) was not directly addressed. Another aspect of the disorder not addressed in the present study was the impact on social, occupational, or other important areas of functioning (Criterion F). The present study utilised the CR-PTSD to define PTSD caseness. Caution must be exercised when interpreting results, as the CR-PTSD is not a diagnostic tool. It measures symptoms which distinguished women diagnosed with PTSD from those who were not. A high score may not indicate more severe PTSD, but rather it may indicate a greater probability of being diagnosed. Future research to examine the contribution of peritraumatic dissociation in predicting PTSD diagnosis in this population would benefit from using comprehensive structured interviews or a multimethod approach.

Marmar and colleagues (e.g. Marmar et al., 1997) have repeatedly noted that a limitation of the majority of studies examining peritraumatic dissociation, to date is that they have relied on retrospective reports of dissociation. They assert that

as a result, the relationship that has been observed between peritraumatic dissociation and subsequent stress symptoms may be partly due to a confounding of stress response and measurement. In other words, those participants who have higher levels of stress response may 'remember' more dissociation than those who do not have those responses. Despite this potential limitation, findings from prospective studies (e.g. Shalev et al., 1996) lessen concern about using retrospective reports of dissociation and others (e.g. Marmar et al., 1997) who have report that retrospective reports of peritraumatic dissociation are stable over time. Furthermore, the retrospective recall required in some studies has spanned 20 years, which differs from the present study where time since the abusive relationship was quite variable but rarely exceeded such a long time span.

8.13 Directions for future research

One of the critical areas that sets domestic violence apart from other traumatic events is its tendency to involve multiple occurrences of different types of abuse, over an extended length of time. Furthermore, within a setting that is familiar and assumed to be a place of safety. Further study of the extent and characteristics of such abuse, and its association with traumatic outcome including the possible moderating or mediating role of dissociation will provide important data regarding the ultimate effects of domestic violence. Clearly, an important direction for future research is to investigate the role of peritraumatic dissociation and traumatic stress symptomatology utilising larger sample sizes of domestically abused women. Larger samples sizes of abused women, whether they were clinical, community or otherwise, would enable the use of more complex statistical procedures and more confident interpretation of data. For example, the present study was unable to address the types of peritraumatic dissociative experiences that were most likely to predict current PTSD. Future research would also benefit by utilising control groups of, for example, non-abused women; or other trauma population groups such as disaster victims or war veterans.

As Marmar and colleagues note (1994), in order to disentangle cause and effect relations in the trauma dissociation connection, prospective studies that

examine dissociative tendencies in populations that are subsequently exposed to trauma are needed. Marmar and colleagues (1994) also assert that family history, twin studies, cross-fostering studies, and biological marker studies will be required to determine if peritraumatic and general dissociative tendencies are characteristics that are inherited or learned early in life. The practicalities of this calibre of research however is a consideration that needs to be addressed. PTSD symptomatology may depend upon a number of other factors, both pre, peri, and post the abusive relationship (Dutton, 1992), that were not directly examined in the present study. For example, childhood physical and sexual abuse has been consistently identified as a risk factor for the development of PTSD (e.g. Astin et al., 1995; Bremner, Steinberg, et al., 1993). Furthermore, a relationship between childhood trauma and dissociation has been consistently observed (e.g. Chu & Dill, 1990). This relationship needs to be investigated further, as it might explain the observed relationship between peritraumatic dissociation at the time of an abusive relationship, and traumatic stress symptoms.

Another issue not addressed in the present study relates to the course of PTSD in domestically abused women. Longitudinal data or at least a sample of women in the community who are at different points with respect to time out of the abusive relationship would be useful in answering such questions. Traumatic stress outcome should also be considered within the context of the continuing contact abused women often have with the abuser, such as through family court, custody and access arrangements, and continuing threats or acts of violence toward her, even after separation.

Several other questions not raised in the present study could benefit from being investigated further. For example, women were not asked about the perpetration of abuse by themselves. This would be a useful question in future research given the literature that has reported children are at increased risk of physical abuse from their mothers who are themselves the subject of abuse (e.g. O'Keefe, 1995). In addition the present study did not establish whether women were living with their abusive partner at the time of the relationship, or the proportion of the relationship that was abusive. It is possible that rates of

reported abuse, and its relationship to traumatic stress responses may differ according to this variable. Future research might also explore the degree to which the occurrence of peritraumatic dissociation impinges on women's decision to remain or leave an abusive relationship.

8.14 Conclusions

A central aim of the present thesis was to determine the extent of PTSD symptoms in a community sample of women who have experienced domestic violence. Consistent with previous research, women reported a wide array of psychological difficulties and symptoms. This supports the finding that domestic violence has long-term adverse effects on women's psychological well-being. A significant proportion of women reported current PTSD symptoms, and nearly one third of the sample were classified as PTSD cases. Today there is little question that women who have experienced domestic violence are a valid trauma group, and PTSD may be an appropriate diagnosis, a trend that is only relatively recent. Results also support previous research, which have shown that the frequency and severity of the abuse impacts on levels of current PTSD symptoms. Relationship length, time elapsed since permanently separating from the abusive relationship, age, number of traumatic events exposed to in respondents' lifetime were not found to be associated with current PTSD symptom levels.

While there is increasing empirical support for the link between peritraumatic dissociation and long-term response to trauma, this has been noted, but not empirically studied in domestically abused women. A focus of the current thesis therefore, was to explore the link between peritraumatic dissociation and PTSD symptoms in this population group. In agreement with previous research, the results indicated that dissociative symptoms during the abusive relationship, although not related to the frequency of physical and psychological abuse, were significantly related to levels PTSD. Furthermore, women classified as PTSD cases in the study reported significantly higher levels of dissociation at the time of the abusive relationship than women classified as PTSD non-cases. It was also found that peritraumatic dissociative experiences during the abusive relationship were associated with general psychopathology such as anxiety,

hostility and depression symptoms. While peritraumatic dissociation may initially serve as a protective coping mechanism, the current study is consistent with a growing body of research which suggests that such a response may be a predictor of PTSD symptoms. Despite the methodological difficulties and caveats of research in the field of domestic violence, the results of the present research provides valuable information regarding the nature and characteristics of domestic violence encountered in a New Zealand sample. This in turn may help contribute to the development of appropriate intervention strategies.

Using the conceptualisation of PTSD to explain women's responses to domestic violence will go a long way in helping abused women themselves, understand the effects of trauma. Education about the strong association found between partner abuse and symptoms of PTSD will help for example, remove some of the self-blame by linking their experience to that of other trauma victims such as combat veterans and disaster victims. Furthermore, a diagnosis of PTSD is more benign than other diagnoses that are commonly given to abused women (Kemp, et al., 1991).

Additionally, given the prevalence of domestic violence in New Zealand, and resulting PTSD for a substantial proportion of victims, it would be helpful to be able to identify immediately those women who are most at risk of developing severe stress symptomatology. The importance of immediate intervention following a trauma to prevent chronic posttrauma problems has often been emphasised in the literature (Foa & Meadows, 1997). The present findings suggest that peritraumatic dissociation should be routinely assessed as a potential risk marker for severe symptomatology when working with victims of domestic violence. In order to assist women who have experienced domestic violence, professionals and other workers in the feed need a sophisticated understanding not only of the range and variety of consequences that may be seen, but also of the underlying mechanisms involved in this presentation.

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DOMESTIC VIOLENCE CENTRE - TE WHARE WHANAU WHAKAOHO

Patron: The Hon Justice Silvia Cartwright DBE
Crisisline 09 303 3939 Office 09 303 3938 Fax 09 303 0067 http://www.dvc.org.nz
PO Box 106 126, Downtown, Auckland. Level 2, 26 Wyndham Street, Auckland. E-mail services@dvc.org.nz

24 October 2000

Dear ,

As you may know, the Domestic Violence Centre provides a range of domestic violence intervention services in the Auckland City Community. This includes providing support, information and advocacy to people who have experienced domestic violence. Your name has been selected from a list of our clients to receive this invitation to participate in a study being carried out by Fran Miller, a psychology student at Massey University.

The study is looking at reactions to stress and trauma in **women who have experienced some form of abuse by their previous partners**. Women invited to take part in the study, are all current or previous clients of the DVC. **If you have been in a relationship with a partner who was abusive towards you, and the relationship is now over, you are able to take part in the study**. We strongly support the work being done by Fran and want to assure you that all your details remain confidential and that the research project is separate to the services offered to you by us.

We think the work being done by Fran is really important. It will be able to give our organisation, and others like us, valuable knowledge about emotional reactions due to domestic violence. It will also contribute towards work on preventing the development of more lasting emotional reactions, and will help us make sure women are getting the kind of help they need.

The study involves filling out a questionnaire about your experience. Details about the study are provided in the attached information sheet. We hope you will be able to take the time (40-45 mins.) to assist Fran in investigating the effects of domestic violence. To get a good understanding, Fran needs responses from as many women as possible. The more women who complete the questionnaire, the more accurate the results will be.

If you are interested in taking part in the study, give Fran a call on **0800 001 568**. This is a free call.

Regards,

Posttraumatic Stress in Women who have Experienced Domestic Violence

INFORMATION SHEET FOR POTENTIAL PARTICIPANTS

Hi, my name is Frances Miller. As part of the completion of a Master of Arts degree in psychology, I am undertaking a thesis research project under the supervision of Professor Nigel Long and Associate Professor Paul Merrick at Massey University. I would like to get information from women, who like myself have experienced domestic violence. This information will help to answer some questions about the effects of domestic violence and will provide some clues to whether women are getting the help they need.

Where can we be contacted?

Frances Miller	PH: 0800 001 568.
Professor Nigel Long	Head of School of Psychology Massey University Palmerston North PH: (06) 350 5799 extn 2043
Assoc. Professor Paul Merrick	School of Psychology Massey University Albany PH: (09) 443-9799 extn 9865

What is this study about?

The aim of this study is to look at the emotional effects of domestic violence after women have separated form an abusive partner. The study is especially interested in how common particular emotional effects are, how long they may last and some of the reasons why these may differ among different women. This information will help us understand the effects of domestic violence more clearly and will therefore help ensure that women are getting the kind of help and support they need.

This study is separate from the services offered by the Domestic Violence Centre/SAFTINET organisation and if you join in it will not affect the work they do with you.

Am I eligible to take part?

To be able to take part in this study, it is important that you are no longer in a relationship with a partner who has been abusive or violent towards you. This is because it might be unsafe for you.

What do I have to do?

If you want to take part, you need to read and sign the consent form. On the consent form you are asked to show whether you would like to have some information given back to you about what the study tells us. If you want this information, please fill in your contact details on the consent form. If you do not want me to know who you are, then just leave the contact details blank, that is, do no put your name, address and telephone number on the consent form.

After you have filled out the consent form, then you fill out the questionnaires. This should take about 40-45 minutes of your time. When you have finished both the consent form and the questionnaires please send them back in the addressed envelope provided. This is a free-post envelope so you do not have to use a stamp.

If you want, a support person is available to help you understand and fill out the questionnaire. All you need to do is contact the researcher and a time will be arranged for the researcher or an assistant to go through the questionnaire with you.

What will happen to the information?

You will notice that there are code numbers on the questionnaires. This is to make sure that the information you give is confidential and anonymous. This means that no one will be able to tell which answers you gave and which answers were given by someone else. There will be no way of matching any of the questionnaire information with your contact details, if you have given these. Because of this, you will not be able to withdraw from the study once you have sent your questionnaire in.

All of the information you provide will be kept safely and securely in locked files until the research is completed. Only the researcher and supervisors will have access to the information you have provided. At the end of the study, which will be the end of this year, all of the information you have provided will be permanently destroyed. Summaries of group data held electronically will not be able to identify individual participants.

The findings from the study will form part of my Masters thesis, which will be held at Massey University. Findings from this study may also be used for publication in professional journals or conferences. A summary of the findings will also be given to the Domestic Violence Centre and other organisations working in the field of domestic violence. You, too, can have a summary of the findings when the research has been completed.

Keeping Safe.

Some of the questions in this study are very personal and might leave you feeling distressed or concerned. If you are upset, worried or just want to talk to somebody, I have included a resource sheet and pamphlets of people you could contact if you want to. The Domestic Violence Centre and the other contacts listed are more than happy to help you with your concerns. Please feel free to contact me at any time or either of my supervisors during working hours. We can also refer you to an appropriate agency or support service. Most of the agencies listed provide a totally free service. However, some may require a small cost. If you ring any of the contacts they will inform you of any costs involved.

What are my rights?

If you choose to participate you have the right to:

- Not take part or withdraw from the study by not sending your questionnaire in
- Refuse to answer any particular questions
- Contact me or my supervisors and ask questions about the study
- Fill out the consent form and questionnaires knowing that it is completely confidential to the researcher and her supervisors, and will not be used for any other purpose other than this research, and publications arising from this.
- Take part in the study knowing that you will not be identified and your personal details are confidential
- Receive information about the results of the study when it is completed.

If you would like to take part in the study or have any further question about the study please contact me on 0800 001 568.

Thank-you very, very much. The very best wishes to you in the future. I sincerely hope the best days of your life are awaiting you.

Frances Miller.

Dear

Firstly, an apology that this research pack has taken so long to get to you. Unfortunately there were a few hold ups along the way. Secondly, my heartfelt thanks for participating in this research. Your help is really appreciated.

Remember, to be eligible to participate you must have been in a relationship with a partner who was abusive towards you, and the relationship must now be over. If you have had more than one abusive relationship it is important that you answer the questionnaire in relation to the most recent abusive partner.

Enclosed in this research pack is:

- An information sheet
- A resource sheet
- A consent form
- The questionnaire
- A free-post envelope

The information sheet and the resource sheet are for you to keep. The information sheet is the same as the one you already have. The resource sheet lists a number of agencies that you can contact if you have any concerns or need some kind of help.

After reading the information sheet, please read and sign the consent form. When you are ready, fill out the questionnaire. This should take about 45 minutes. The last section is optional and provides a space for you to comment on how you found the services offered by the Domestic Violence Centre. Please note that there are no right and wrong answers. If at any time you have questions or become upset, feel free to ring me.

Once you have completed the consent form and questionnaire, pop it in the envelope and mail it back to me. This is a free-post envelope so you don't need a stamp.

Remember, if you have questions or concerns at any time, please feel free to call me on **0800 001 568**. Good luck to you in your future.

Thank-you,

Fran.

Posttraumatic Stress in Women who have Experienced Domestic Violence.

CONSENT FORM

I have read the Information Sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I understand I have the right to withdraw from the study and to decline to answer any particular questions.

I agree to provide information to the researcher on the understanding that it is completely confidential and that the information will not be used for any purpose other than this research.

I agree to participate in this study under the conditions set out in the Information Sheet.

Signed: .....

Name: .....

Date: .....

I would like to receive feedback and summary results of the research.

Please Circle: Yes / No

If yes, please fill in the contact details below.

If you would like to submit the questionnaire completely anonymously, that is, if you do not want me to know who you are, you can leave the contact details blank.

Contact Details:

Name: .....

Address: .....

Telephone: .....

Thank-you.

RESOURCE SHEET

Following is a list of contacts that you may find helpful.
You may also wish to ring your GP and local community centres.
Feel free to ring the researcher at any time: 0800 001 568.
Remember you are not alone, Help is available.
Mehema e pouri ana akoe ma matou koe e awhi

FAMILY VIOLENCE REFERRAL AGENCIES AUCKLAND REGION

DOMESTIC VIOLENCE CENTRE

24 HR CRISIS LINE
Ph: (09) 303 3939
Office phone Monday-Friday
Ph: (09) 303 3938

- 24hr callout advocacy service.
- Face to face counselling and support.
- Referral to other agencies; emergency housing, financial assistance, immigration issues, lawyers, doctors.
- Court advocacy.

NZ POLICE

Ph: 111

WOMENS REFUGE

24 HR CRISIS LINE
Ph: (09) 378 1893

A safe place for all women and their children to seek protection from an abusive partner.
Refuges generally provide assistance and access to:

- Support, counselling and information services
- Transport
- Referral to resources/agencies in the community
- Help with legal and housing issues

AUCKLAND SEXUAL ABUSE HELP FOUNDATION

24 HR CRISIS LINE
Ph: (09) 623 1700
Office phone Monday-Friday
Ph: (09) 623 1316

- 24hr crisis service for survivors of sexual assault and rape
- Counsellor attendance at forensic medicals, police statements and court procedures.
- Ongoing counselling, support, information and advocacy.

AUCKLAND RAPE CRISIS

CRISIS LINE Mon-Fri
Ph: (09) 366 7213
Office phone Monday-Friday
Ph: (09) 366 7214
Crisis line fax number for DEAF
Ph: (09) 366 6887

- Crisis phone
- Support and referrals for survivors of rape and sexual abuse and their family
- Answer phone and referral information after hours and weekends.

FAMILY VIOLENCE SUPPORT GROUPS FOR WOMEN IN THE AUCKLAND REGION

The following list of support agencies has been produced by NOWSA (Network of Women's Support Agencies).

What support groups offer.

- Support from women who understand your experience
- A safe and confidential environment to work through your experiences
- Self-esteem and confidence
- Information and support to keep you and your children safer
- Understanding power and control issues in relationships
- Debunking myths and stereotypes about men, women, and domestic violence
- Strength to plan for a brighter future.

WOMENS SUPPORT GROUPS

NORTH

• North Harbour Living Without Violence	Ph: (09) 489 3770
• North Shore Women's Centre	Ph: (09) 444 4618
• Raeburn House	Ph: (09) 489 5609
• Rodney Stopping Violence Services	Ph: (09) 422 5750

CITY

• Inner City Women's Group	Ph: (09) 827 3026
• Home & Family Society	Ph: (09) 630 8961
• Supportline Women's Refuge	Ph: (09) 849 5692
• Auckland Women's Centre	Ph: (09) 376 3227

SOUTH

• Counties Manukau Support- Info line	Ph: (09) 263 6841
• Turning Point Peppertree House	Ph: (09) 276 8868
• Howick House Associates	Ph: (09) 535 6624
• Brighter Futures, Paptoetoe	Ph: (09) 277 9324
• Friendship House Women's Programme	Ph: (09) 262 2322
• Papakura Women's Centre	Ph: (09) 299 6610
• Kelvin Rd Whanau Centre	Ph: (09) 299 6610
• Family Support Centre	Ph: (09) 238 6233

WAIHEKE ISLAND

• Waiheke Island Women's Support Group	Ph: (09) 372 8580
• Living Without Violence	Ph: (09) 372 9220

WEST

• West Auckland Women's Centre	Ph: (09) 838 6381
• Pacific Islands Safety and Prevention Project	Ph: (09) 837 1619
• Waitakere Abuse and Trauma Counselling Centre	Ph: (09) 837 2491

• MAORI WOMEN'S SUPPORT (AND WHANAU SUPPORT) SERVICES

NORTH

- Te Raki Paewhenua Whanau Support Service — Ph: (09) 489 4767

CENTRAL

- Tumanako House, Orakei Health Services — Ph: (09) 5210123
- Maori Women's Welfare League — Ph: (09) 624 3906

SOUTH

- Te Whare Ruruhau — Ph: (09) 270 2631
- Te Tai Awa O Te Ora — Ph: (09) 274 4220

WEST

- Tu Wahine Trust — Ph: (09) 838 8700

PACIFIC ISLAND WOMEN'S SUPPORT SERVICES

- Pacific Women's Health Project — Ph: (09) 622 2188
- Pacific Island Women's Refuge — Ph: (09) 634 4662
- Tumu Korero — Ph: (09) 278 3880
- Pacific Islands Safety and Prevention Project — Ph: (09) 837 1619

ASIAN WOMEN'S SUPPORT SERVICES

- Shakti — Ph: (09) 625 6714
- Home and Family Society — Ph: (09) 630 8961

LESBIAN WOMEN'S SUPPORT SERVICES

- Auckland Women's Centre — Ph: (09) 376 3227
- Auckland Central Women's Refuge — Ph: (09) 378 7635

First, we would like you to provide some background information about yourself. Tick the appropriate boxes and write your responses in the spaces provided below. Remember that the information that you give us is confidential.

1. What is your date of birth? ____/____/_____

2. Which ethnic group do you identify most with?

1 N.Z. Pakeha/European

2 N.Z. Maori

3 Pacific Island Nation (please specify) .....

4 Asian (please specify) .....

5 Indian

6 Other (please specify) .....

Are you New Zealand born?

Yes No

Is English your first language?

Yes No

5. What is your main job?

1 Employed Full-time (more than 30 hours)

2 Employed Part-time (less than 30 hours)

3 Student

4 Self-employed

5 Not in paid employment (Unemployed/Retired/On a benefit/Homemaker)

6. What is your yearly income?

1 $ 0 - $ 9,999 2 $10 - $19,999

3 $20 - $29,999 4 $30 - $39,999

5 $40,000 +

7. What is your highest educational qualification?

1 No school qualification

2 School certificate passes

3 School qualifications, University Entrance and above

4 Trade Certificate or Professional certificate or diploma

5 University degree, diploma or certificate

8. **How many relationships have you had where your partner was abusive towards you? By abuse we mean acts that have caused physical and/or emotional harm (e.g. hitting, pushing, destroying property, humiliation, threats, mind games).**

One | Two

Three | Four or more

Following are some questions about your relationship with the partner that has been abusive towards you. If you have been in more than one abusive relationship please answer the remainder of the questions in relation to the most recent relationship

9. **What was your relationship with the abusive partner?**

1 Married | 2 De Facto

3 Partner (e.g. Boyfriend) | 4 Other (please specify) .....

10. **What gender was the abusive partner?**

Same-sex | Opposite-sex

11. **Was the abusive partner the same ethnicity as you?**

Yes | No

If no, which ethnic group did the abusive partner identify with?

1 N.Z. Pakeha/European

2 N.Z. Maori

3 Pacific Island Nation (please specify) .....

4 Asian (please specify) .....

5 Indian

6 Other (please specify) .....

12. **How long were you in the relationship with the abusive partner, including time apart? (approximately)**

Years: ..... Months: ..... Weeks: .....

13. **How long ago did you permanently separate from the abusive partner? (approximately)**

Years: ..... Months: ..... Weeks: .....

14. Do you feel that he/she has been abusive towards you since permanently separating?

Yes No

15. While in the relationship with the abusive partner, were you also abused by anybody else? (e.g. Other family members)

Yes No

16. Do you have children in your care?

Yes No

If yes, how many in each of the following age groups?

Pre-School Age .....

Primary School Age .....

High School Age .....

17. If you had children in your care, did the abusive partner in any way also abuse them? (This includes emotional abuse such as calling them degrading names)

Yes No

18. If you had children in your care, did they ever see or hear violence against you by your partner?

Yes No

19. Was your father or other caregiver physically or emotionally abusive towards your mother when you were growing up?

Yes No

20. When did you first have contact with the Domestic Violence Centre? (approx.)

Date:...../...../.....

21. How many times have you had contact with the Domestic Violence Centre?

One Two Three

Four Five times or more

22. Do you have any protection orders taken out against the abusive partner?

Yes No

Thank-you, please continue with the questions on the following pages.

Appendix G: Abusive Behavior Inventory

Instructions: **Here is a list of behaviours that many women report has been used by their former abusive partners. We would like you to estimate how often these behaviours occurred during the time you were in a relationship with the abusive partner. Circle a number of each of the items listed below to show your closest estimate. Remember there are no right or wrong answers.**

		Never	Rarely	Occasionally	Frequently	Very Frequently
		1	2	3	4	5
1.	Called you names and/or criticised you	1	2	3	4	5
2.	Tried to keep you from doing something you wanted to do (e.g.: going out with friends, going to meetings)	1	2	3	4	5
3.	Gave you angry looks or stares that made you feel scared	1	2	3	4	5
4.	Prevented you from having money for your own use	1	2	3	4	5
5.	Ended a discussion with you and made the decision himself/herself	1	2	3	4	5
6.	Threatened to hit or throw something at you	1	2	3	4	5
7.	Pushed, grabbed, or shoved you	1	2	3	4	5
8.	Put down your family and friends	1	2	3	4	5
9.	Accused you of paying too much attention to someone or something else (e.g. Children, friends, work)	1	2	3	4	5
10.	Put you on an allowance	1	2	3	4	5
11.	Used your children to threaten you (e.g.: told you that you would lose custody, said he/she would leave town with the children)	1	2	3	4	5
12.	Became very upset with you because dinner, housework, or laundry was not ready when he/she wanted it or done the way he/she thought it should be.	1	2	3	4	5
13.	Said things to scare you (e.g.: told you something 'bad' would happen, threatened to commit suicide)	1	2	3	4	5

		Never	Rarely	Occasionally	Frequently	Very Frequently
		1	2	3	4	5
14.	Slapped, hit, or punched you	1	2	3	4	5
15.	Made you do something humiliating or degrading (e.g.: begging for forgiveness, having to ask his/her permission to use the car or do something)	1	2	3	4	5
16.	Checked up on you (e.g.: listened to your phone calls, checked the mileage on your car, called you repeatedly at work)	1	2	3	4	5
17.	Drove recklessly when you were in the car	1	2	3	4	5
18.	Pressured you to have sex in a way that you didn't like or want	1	2	3	4	5
19.	Refused to do housework or childcare	1	2	3	4	5
20.	Threatened you with a knife, gun, or other weapon	1	2	3	4	5
21.	Threatened you with his/her fists	1	2	3	4	5
22.	Told you that you were a bad parent	1	2	3	4	5
23.	Stopped you or tried to stop you from going to work or school	1	2	3	4	5
24.	Threw, hit, kicked, or smashed something	1	2	3	4	5
25.	Kicked you	1	2	3	4	5
26.	Physically forced you to have sex	1	2	3	4	5
27.	Threw you around	1	2	3	4	5
28.	Physically attacked the sexual parts of your body	1	2	3	4	5
29.	Choked or strangled you	1	2	3	4	5
30.	Used a knife, gun, or other weapon against you	1	2	3	4	5

		Never	Rarely	Occasionally	Frequently	Very Frequently
		1	2	3	4	5
31.	Hurt you so bad that you needed medical attention or hospitalisation	1	2	3	4	5
32.	Stopped you from gaining medical attention or medication	1	2	3	4	5
33.	Other physically abusive behaviours not listed above (e.g. burning you; restraining you)	1	2	3	4	5
34.	Other emotionally abusive behaviours not listed above.(e.g. abused or threatened to abuse family pets; destroyed your property and belongings)	1	2	3	4	5

Appendix H: Peritraumatic Dissociative Experiences Questionnaire

Instructions: **Please complete the items below by circling the choice that best describes your experiences and reactions during the time you were in the abusive relationship. If an item does not apply to your experience, please circle, "Not at all true".**

		Not at all true 1	Slightly true 2	Somewhat true 3	Very true 4	Extremely true 5
1.	I had moments of losing track of what was going on- I "blanked out" or "spaced out" or in some way felt that I was not part of what was going on.	**1**	**2**	**3**	**4**	**5**
2.	I found that I was on "automatic pilot"- I ended up doing things that I later realised I hadn't actively decided to do.	**1**	**2**	**3**	**4**	**5**
3.	My sense of time changed – things seemed to be happening in slow motion.	**1**	**2**	**3**	**4**	**5**
4.	What was happening seemed unreal to me, like I was in a dream or watching a movie or play.	**1**	**2**	**3**	**4**	**5**
5.	I felt as though I were a spectator watching what was happening to me, as if I were floating above the scene or observing it as an outsider.	**1**	**2**	**3**	**4**	**5**
6.	There were moments when my sense of my own body seemed distorted or change. I felt disconnected from my own body, or that it was unusually large or small.	**1**	**2**	**3**	**4**	**5**
7.	I felt as though things that were actually happening to others were happening to me – like I was being trapped when I really wasn't.	**1**	**2**	**3**	**4**	**5**
8.	I was surprised to find out afterward that a lot of things had happened at the time that I was not aware of, especially things I ordinarily would have noticed.	**1**	**2**	**3**	**4**	**5**

		Not at all true 1	Slightly true 2	Somewhat true 3	Very true 4	Extremely true 5
9.	I felt confused: that is there were moments when I had difficulty making sense of what was happening.	**1**	**2**	**3**	**4**	**5**
10.	I felt disoriented; that is, there were moments when I felt uncertain about where I was or what time it was.	**1**	**2**	**3**	**4**	**5**

Appendix I: Traumatic Stress Schedule

Instructions: **The next questions are about stressful events, which may or may not have happened in your life. Answer yes or no - circling as you go.**

		YES 1	NO 2
1.	Have you ever been engaged in military combat?	1	2
2.	During your childhood, did anyone ever make you have sex by using force or threatening to harm you? (This involves all unwanted sexual activity)	1	2
3.	Has anyone ever made you, as an adult, have sex by using force or threatening to harm you? (This involves all unwanted sexual activity, but not as a child)	1	2
4.	Have you ever been seriously beaten or attacked by a member of your family? (such as your spouse, partner, parent, child)	1	2
5.	Have you ever been seriously beaten or attacked by someone who was not a member of your family?	1	2
6.	Has anyone ever taken or tried to take something from you by force or threat of force, such as in a robbery, mugging, or hold-up?	1	2
7.	Have you ever been in a serious motor vehicle accident in which one or more people were seriously injured or killed?	1	2
8.	Have you ever been seriously injured in an accident other than a vehicle accident, such as at work?	1	2
9.	Have you ever suffered serious injury and/or property damage because of a natural or manmade disaster such as a fire, flood, or earthquake?	1	2
10.	Have you ever been forced to leave your home or take other precautions because of an approaching disaster such as flood, earthquake, or cyclone?	1	2
11.	Have you ever experienced the violent or very unexpected death of a loved one, such as through an accident, homicide, or suicide?	1	2
12.	Has anyone very close to you (a loved one) ever experienced violent assault, serious accident or serious injury?	1	2
13.	Have you ever had any other experience which you feel was shocking, terrifying or otherwise traumatic, including any event which you find too difficult to name or to talk about?	1	2

Thank-you! You are doing well, please continue.

Appendix J: Impact of Event Scale- Revised

Instructions: **The following is a list of difficulties people sometimes have after stressful life events. Please read each item, and then indicate how distressing each difficulty has been for you *during the past 7 days* with respect to the abusive relationship.**

		Not at all	A little bit	Moderately	Quite a bit	Extremely
		0	1	2	3	4
1.	Any reminder brought back feelings about it	0	1	2	3	4
2.	I had trouble staying asleep	0	1	2	3	4
3.	Other things kept making me think about it	0	1	2	3	4
4.	I felt irritable and angry	0	1	2	3	4
5.	I avoided letting myself get upset when I thought about it or was reminded of it	0	1	2	3	4
6.	I thought about it when I didn't mean to	0	1	2	3	4
7.	I felt as if it hadn't happened or wasn't real	0	1	2	3	4
8.	I stayed away from reminders about it	0	1	2	3	4
9.	Pictures about it popped into my mind	0	1	2	3	4
10.	I was jumpy and easily startled	0	1	2	3	4
11.	I tried not to think about it	0	1	2	3	4
12.	I was aware that I still had a lot of feelings about it, bit I didn't deal with them	0	1	2	3	4
13.	My feelings about it were kind of numb	0	1	2	3	4
14.	I found myself acting or like I was back at that time	0	1	2	3	4
15.	I had trouble falling asleep	0	1	2	3	4
16.	I had waves of strong feelings about it	0	1	2	3	4
17.	I tried to remove it from my memory	0	1	2	3	4

		Not at all 0	A little bit 1	Moderately 2	Quite a bit 3	Extremely 4
18.	I had trouble concentrating	**0**	**1**	**2**	**3**	**4**
19.	Reminders of it caused me to have physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart	**0**	**1**	**2**	**3**	**4**
20.	I had dreams about it	**0**	**1**	**2**	**3**	**4**
21.	I felt watchful and on guard	**0**	**1**	**2**	**3**	**4**
22.	I tried not to talk about it.	**0**	**1**	**2**	**3**	**4**

Appendix K: Modified Posttraumatic Symptom Scale

Instructions: **Below is a list of problems that people sometimes have after stressful life events. Please read each item carefully and indicate how OFTEN in the frequency column and then how DISTRESSING in the severity column each difficulty has been in the PAST MONTH.**

Scale Key

	FREQUENCY		SEVERITY
0	Not at all	A	Not at all distressing
1	Once per week or less/ a little bit/once in a while	B	A little bit distressing
2	2 to 4 times per week/somewhat/half the time	C	Moderately distressing
3	5 or more times per week/very much/almost always	D	Quite a bit distressing
		E	Extremely distressing

		FREQUENCY				***SEVERITY***				
		Not at all	**A little bit**	**Half the time**	**Almost always**	**Not distressing**	**A little distressing**	**Moderately distressing**	**Quite distressing**	**Extremely distressing**
		0	**1**	**2**	**3**	**A**	**B**	**C**	**D**	**E**
1	Have you had recurrent or intrusive distressing thoughts or recollections about the abusive relationship?	0	1	2	3	A	B	C	D	E
2	Have you been having recurrent bad dreams or nightmares about the abusive relationship?	0	1	2	3	A	B	C	D	E
3	Have you had the experience of suddenly reliving the abusive relationship, flashbacks of it, acting or feeling as it were re-occurring?	0	1	2	3	A	B	C	D	E
4	Have you been intensely EMOTIONALLY upset when reminded of the abusive relationship (includes anniversary reactions)?	0	1	2	3	A	B	C	D	E

		FREQUENCY				SEVERITY				
		Not at all	A little bit	Half the time	Almost always	Not distressing	A little distressing	Moderately distressing	Quite distressing	Extremely distressing
		0	1	2	3	A	B	C	D	E
5	Have you persistently been making efforts to avoid thoughts or feelings associated with the abusive relationship?	0	1	2	3	A	B	C	D	E
6	Have you persistently been making efforts to avoid activities, situations, or places that remind you of the abusive relationship?	0	1	2	3	A	B	C	D	E
7	Are there any important aspects about the abusive relationship that you still cannot recall?	0	1	2	3	A	B	C	D	E
8	Have you markedly lost interest in free time activities since the abusive relationship?	0	1	2	3	A	B	C	D	E
9	Have you felt detached or cut off from others around you since the abusive relationship?	0	1	2	3	A	B	C	D	E
10	Have you felt that your ability to experience emotions is less (e.g., unable to have loving feelings, do you feel numb, can't cry when sad, etc.)?	0	1	2	3	A	B	C	D	E

		FREQUENCY				SEVERITY				
		Not at all	A little bit	Half the time	Almost always	Not distressing	A little distressing	Moderately distressing	Quite distressing	Extremely distressing
		0	1	2	3	A	B	C	D	E
11	Have you felt that any future plans or hopes have changed because of the abusive relationship (e.g., no career, marriage, children, or long life)?	0	1	2	3	A	B	C	D	E
12	Have you been having persistent difficulty falling or staying asleep?	0	1	2	3	A	B	C	D	E
13	Have you been continuously irritable or having outbursts of anger?	0	1	2	3	A	B	C	D	E
14	Have you been having persistent difficulty concentrating?	0	1	2	3	A	B	C	D	E
15	Are you overly alert (e.g., check to see who is around you, etc) since the abusive relationship?	0	1	2	3	A	B	C	D	E
16	Have you been jumpier, more easily startled, since the abusive relationship?	0	1	2	3	A	B	C	D	E
17	Have you been having intense PHYSICAL reactions (e.g., sweaty, heart palpitations) when reminded of the abusive relationship?	0	1	2	3	A	B	C	D	E

Thank-you! You are doing well, please continue, almost completed.

Appendix L: Symptom Checklist 90-Revised

Instructions: **Below is a list of problems people sometimes have. Please read each one carefully, and circle the one that best describes HOW MUCH THAT PROBLEM HAS DISTRESSED OR BOTHERED YOU DURING THE PAST 7 DAYS INCLUDING TODAY. Circle only one number for each problem and do not skip any items. If you change your mind, erase your first mark carefully.**

		Not at all 0	A little bit 1	Moderately 2	Quite a bit 3	Extremely 4
1.	Headaches	0	1	2	3	4
2.	Nervousness or shakiness inside	0	1	2	3	4
3.	Repeated unpleasant thoughts that won't leave your mind	0	1	2	3	4
4.	Faintness or dizziness	0	1	2	3	4
5.	Loss of sexual interest or pleasure	0	1	2	3	4
6.	Feeling critical of others	0	1	2	3	4
7.	The idea that someone else can control your thoughts	0	1	2	3	4
8.	Feeling others are to blame for most of your troubles	0	1	2	3	4
9.	Trouble remembering things	0	1	2	3	4
10.	Worried about sloppiness or carelessness	0	1	2	3	4
11.	Feeling easily annoyed or irritated	0	1	2	3	4
12.	Pains in heart or chest	0	1	2	3	4
13.	Feeling afraid in open spaces or on the streets	0	1	2	3	4
14.	Feeling low in energy or slowed down	0	1	2	3	4
15.	Thoughts of ending your life	0	1	2	3	4
16.	Hearing voices that other people do not hear	0	1	2	3	4
17.	Trembling	0	1	2	3	4
18.	Feeling that most people cannot be trusted	0	1	2	3	4

		Not at all 0	A little bit 1	Moderately 2	Quite a bit 3	Extremely 4
19.	Poor appetite	0	1	2	3	4
20.	Crying easily	0	1	2	3	4
21.	Feeling shy or uneasy with the opposite sex	0	1	2	3	4
22.	Feelings of being trapped or caught	0	1	2	3	4
23.	Suddenly scared for no reason	0	1	2	3	4
24.	Temper outbursts that you could not control	0	1	2	3	4
25.	Feeling afraid to go out of your house alone	0	1	2	3	4
26.	Blaming yourself for things	0	1	2	3	4
27.	Pains in lower back	0	1	2	3	4
28.	Feeling blocked in getting things done	0	1	2	3	4
29.	Feeling lonely	0	1	2	3	4
30.	Feeling blue	0	1	2	3	4
31.	Worrying too much about things	0	1	2	3	4
32.	Feeling no interest in things	0	1	2	3	4
33.	Feeling fearful	0	1	2	3	4
34.	Your feelings being easily hurt	0	1	2	3	4
35.	Other people being aware of your private thoughts	0	1	2	3	4
36.	Feeling others do not understand you or are unsympathetic	0	1	2	3	4
37.	Feeling that people are unfriendly or dislike you	0	1	2	3	4
38.	Having to do things very slowly to insure correctness	0	1	2	3	4

		Not at all 0	A little bit 1	Moderately 2	Quite a bit 3	Extremely 4
39.	Heart pounding or racing	0	1	2	3	4
40.	Nausea or upset stomach	0	1	2	3	4
41.	Feeling inferior to others	0	1	2	3	4
42.	Soreness of your muscles	0	1	2	3	4
43.	Feeling that you are watched or talked about by others	0	1	2	3	4
44.	Trouble falling asleep	0	1	2	3	4
45.	Having to check and double-check what you do	0	1	2	3	4
46.	Difficulty making decisions	0	1	2	3	4
47.	Feeling afraid to travel on buses, subways, or trains	0	1	2	3	4
48.	Trouble getting your breath	0	1	2	3	4
49.	Hot or cold spells	0	1	2	3	4
50.	Having to avoid certain things, places, or activities because they frighten you	0	1	2	3	4
51.	Your mind going blank	0	1	2	3	4
52.	Numbness or tingling in parts of your body	0	1	2	3	4
53.	A lump in your throat	0	1	2	3	4
54.	Feeling hopeless about the future	0	1	2	3	4
55.	Trouble concentrating	0	1	2	3	4
56.	Feeling weak in parts of your body	0	1	2	3	4
57.	Feeling tense or keyed up	0	1	2	3	4
58.	Heavy feelings in your arms or legs	0	1	2	3	4
59.	Thoughts of death or dying	0	1	2	3	4

		Not at all 0	A little bit 1	Moderately 2	Quite a bit 3	Extremely 4
60.	Overeating	0	1	2	3	4
61.	Feeling uneasy when people are watching or talking about you	0	1	2	3	4
62.	Having thoughts that are not your own	0	1	2	3	4
63.	Having urges to beat, injure, or harm someone	0	1	2	3	4
64.	Awakening in the early morning	0	1	2	3	4
65.	Having to repeat the same actions such as touching, counting, or washing	0	1	2	3	4
66.	Sleep that is restless or disturbed	0	1	2	3	4
67.	Having urges to break or smash things	0	1	2	3	4
68.	Having ideas or beliefs that others do not share	0	1	2	3	4
69.	Feeling very self-conscious with others	0	1	2	3	4
70.	Feeling uneasy in crowds, such as shopping or at a movie	0	1	2	3	4
71.	Feeling everything is an effort	0	1	2	3	4
72.	Spells of terror or panic	0	1	2	3	4
73.	Feeling uncomfortable about eating or drinking in public	0	1	2	3	4
74.	Getting into frequent arguments	0	1	2	3	4
75.	Feeling nervous when you are left alone	0	1	2	3	4
76.	Others not giving you proper credit for your achievements	0	1	2	3	4
77.	Feeling lonely even when you are with people	0	1	2	3	4
78.	Feeling so restless you couldn't sit still	0	1	2	3	4

		Not at all 0	A little bit 1	Moderately 2	Quite a bit 3	Extremely 4
79.	Feelings of worthlessness	**0**	**1**	**2**	**3**	**4**
80.	The feeling that something bad is going to happen to you	**0**	**1**	**2**	**3**	**4**
81.	Shouting or throwing things	**0**	**1**	**2**	**3**	**4**
82.	Feeling afraid you will faint in public	**0**	**1**	**2**	**3**	**4**
83.	Feeling that people will take advantage of you if you let them	**0**	**1**	**2**	**3**	**4**
84.	Having thoughts about sex that bother you a lot	**0**	**1**	**2**	**3**	**4**
85.	The idea that you should be punished for your sins	**0**	**1**	**2**	**3**	**4**
86.	Thoughts and images of a frightening nature	**0**	**1**	**2**	**3**	**4**
87.	The idea that something serious is wrong with your body	**0**	**1**	**2**	**3**	**4**
88.	Never feeling close to another person	**0**	**1**	**2**	**3**	**4**
89.	Feelings of guilt	**0**	**1**	**2**	**3**	**4**
90.	The idea that something is wrong with your mind	**0**	**1**	**2**	**3**	**4**

Thank-you very much for taking the time to complete this questionnaire.

Your contribution to my study is very much appreciated.

The Domestic Violence Centre is interested to know how you found the services provided by them. Use the space provided below to make any comments. This is optional and you do not need to fill this out if you don't want to.