An examination of the dynamic risk factors of men undergoing a community-based non-violence programme

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Abstract

The present study aimed to examine potential dynamic risk factors for intimate partner violence (IPV) in a sample of men undertaking a community-based non-violence programme. A purposive sample of 43 men currently undertaking a programme with one of two non-government providers in the central North Island of New Zealand completed a structured interview. First, bivariate associations between individual and relationship level risk factors (i.e., financial and other stress, mental wellbeing, anger arousal, jealousy-related cognitions, alcohol and drug abuse, relationship satisfaction and discord) and physical partner violence and coercive and controlling behaviours were examined. Second, a principal components analysis was used to reduce the number of risk factor scales to a smaller number of risk factor components prior to conducting further multivariate analyses. Third, sequential regression analyses were conducted to identify risk factor components that were significant unique predictors of physical and non-physical partner violence perpetration and victimisation. In addition, 60 narrative accounts of IPV events were thematically analysed for evidence of risk factors during a partner violence event.

Results indicated that alcohol abuse, drug abuse, and financial stress were significantly related to physical IPV perpetration at the bivariate level. In contrast, nearly all risk factors were significantly related to the perpetration of non-physical coercive and controlling behaviours. The principal components analysis identified three risk factor components: stress/negative emotionality, relationship/individual wellbeing, and jealousy/substance abuse. Except for relationship/individual wellbeing and physical IPV perpetration, all risk factor components were significantly related to the measures of physical IPV and controlling behaviours at the bivariate level. Contrary to predictions, however, only the jealousy/substance use component was identified as a significant unique predictor of the perpetration of partner abuse, both physical IPV and controlling behaviours. Both the jealousy/substance abuse and relationship/individual wellbeing component uniquely predicted men's victimisation by partners' coercive and controlling behaviours. Themes identified in the thematic analysis were consistent with the quantitative findings in that several of the risk factors examined were also evident in the event descriptions. Collectively, the findings suggest risk factors of partner

violence that should be targeted by New Zealand prevention and intervention efforts, including substance abuse, jealousy, financial stress, and mutual partner aggression.

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Note to Reader:

Although the research in this thesis is my own, I conducted it as part of a community of graduate and postgraduate research students. I also received advice from my supervisor and from other academic staff. Therefore, I often use the word “we” in this thesis to reflect these facts.

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Chapter 1: Background

The Problem

Intimate partner violence (IPV), often referred to as domestic violence, partner violence, or partner abuse, is a ubiquitous social problem that does tremendous harm to adult victims, their families, and to the wider society. According to the New Zealand Domestic Violence Act 1995, IPV constitutes a subtype of family violence (FV), with FV defined as physical, psychological (e.g., intimidation, harassment, damage to property), or sexual abuse against another person with whom the abuser is or has been in a domestic relationship. A comprehensive review of international research found that approximately 1 in 4 women and 1 in 5 men are physically victimised by a romantic partner in their lifetime (Desmarais, Reeves, Nicholls, Telford, & Fiebert, 2012). In another study, the National Intimate Partner and Sexual Violence Survey, drawing on a sample of 4,741,000 women and 5,365,000 men, found last-year incidence rates for female victimisation were 4.3 million for minor acts (i.e., slapping, pushing, and shoving) and 3.2 million for severe acts (i.e., punching and beating up), while male victimisation incidence rates were 5.1 million for minor acts and 2.2 million for severe acts (Black et al., 2011). Although physical violence has traditionally been the focus of IPV research, there is evidence that emotional abuse may be by far the more common form of partner abuse (Carney & Barber, 2012), and experienced at roughly equal rates by men and women (Hamel, Jones, Dutton, & Graham-Kevan, 2015). Women, however, are much more likely than men to be the victims of sexual coercion and stalking behaviours (Carney & Barber, 2012).

The prevalence picture of IPV that emerges from New Zealand surveys is equally concerning. In a study of women sampled from the Auckland and Waikato regions, five percent of respondents reported having experienced physical and/or sexual violence by an intimate partner within the preceding 12 months (Fanslow & Robinson, 2004). An investigation by UN Women (2011) found that 30 percent of New Zealand women experienced some form of physical IPV victimisation between 2000 and 2010, making New Zealand's physical victimisation rates the *highest* in the developed world at that time. Of particular concern is the overrepresentation of New Zealand Māori both as victims and perpetrators of family violence. For example, the Christchurch Health and Development Study

found that the IPV victimisation rates among those participants who self-identified as Maori were more than three times higher than the rates for non-Maori (Marie, Fergusson, & Boden, 2008). And these group differences remained significant even after controlling for the influence of socioeconomic and family functioning factors (Marie et al., 2008).

The health consequences of physical intimate partner violence can be severe, sometimes fatal. Besides causing injuries (e.g., bruises, broken bones, head injuries), physical IPV is associated with chronic pain, gynaecological and gastrointestinal problems, and compromised immune system functioning (Lawrence, Orengo-Aguayo, Langer, & Brock, 2012). Psychological sequelae, such as post-traumatic stress disorder, anxiety, depression, substance abuse, and sleep disorders, are common among victims of IPV (Lawrence et al., 2012). Furthermore, children exposed to parental IPV have been shown to exhibit more emotional and behavioural problems than non-exposed children (Onyskiw, 2003). And longitudinal research suggests that children who witness such abuse may be more likely to go on to perpetrate IPV themselves as young adults (Linder & Collins, 2005). The adverse effects of emotional abuse on adult partners can also be significant. In fact, among married couples sampled from the community, psychological aggression has been shown to have a more detrimental impact on mental well-being than physical victimisation, leading to greater self-reported levels of anxiety and depression (Lawrence, Yoon, Langer, & Ro, 2009).

The Response

Since the 1980s, due in large part to the campaigning of advocacy groups, the United States began to develop tougher laws and more proactive arrest policies in relation to IPV (Babcock et al., 2016), a trend that has been mirrored in New Zealand (Newbold & Cross, 2008; Ministry of Justice, 2019). These policies have tended to focus on providing safety, support, and counselling for victims, coupled with an aggressive targeting of perpetrators through convictions, community supervision, and court-mandated enrolment in psychoeducational non-violence programmes, often called *batterer intervention programmes* (BIPs; Cannon, Hamel, Buttell, & Ferreira, 2016). Early BIPs, of which the best-known is the Duluth men's programme (see Pence & Paymar, 1983), were grounded in feminist theories of the 1970s (Dutton, 2006). Typically delivered in a group format, these programmes

sought to reduce IPV by raising men's awareness of patriarchal practices in the home, particularly coercive and controlling behaviours (Pence & Paymar, 1983). Increasingly, however, principles derived from cognitive behaviour therapy (e.g., cognitive restructuring, emotional regulation, self-esteem enhancement) have been applied to BIPs, with many non-violence programmes now reflecting a blend of CBT principles and traditional feminist-inspired approaches (Babcock et al., 2016). In New Zealand, these individual and group-based programmes are delivered by both non-government service providers (e.g., the Hamilton Abuse Intervention Project, Tauranga Living without Violence) and by corrections-based therapists; and they are an integral part of a national initiative to reduce family violence (Polaschek, 2016).

However, international outcome studies indicate that batterer intervention programmes are at best only modestly successful in reducing partner violence (Babcock, Green, & Robie, 2004; Feder & Wilson, 2005). Eckhardt et al. (2013), for example, after reviewing 30 programme outcome studies of traditional group-based BIPs, concluded that 'traditional CBT-orientated BIP programming will perform better as often as it performs "no better" than non-treatment control groups at preventing IPV' (p. 220). Several explanations have been proposed for the lack of consistent treatment effects. One possibility is that BIPs have tended to be based on the recommendations of women's advocacy groups, many of which subscribe to arguably outdated and incomplete feminist theories of IPV (Dutton & Nicholls, 2005). For example, a recent United States survey found that many non-violence programmes continue to emphases the role of patriarchy in domestic abuse without giving due attention to other potentially relevant factors, such as mental health issues and mutual partner violence (Cannon et al., 2016).

Another possible explanation, and one which is more pertinent to the current study, is that the treatment needs of partner violent men are still not well understood. This is particularly true of New Zealand IPV perpetrators, on whom to date very little empirical research has been conducted. Recently, scholars (e.g., Dixon & Graham-Kevan, 2011; Stewart, Fight, & Slavin-Stewart, 2013; Babcock et al., 2016) have argued domestic violence interventions should take their lead from the "what works" literature regarding the rehabilitation of general offenders. Briefly, a "what works" perspective (for further explanation, see Andrews & Bonta, 2010) holds that correctional interventions are more likely to succeed when they: (a) match the intensity of the intervention with the risk level of the offender (the *risk* principle);

(b) target dynamic, empirically-supported risk factors for offending (the *need* principle); and (c) ensure interventions embrace cognitive and behavioural approaches (rather than, for example, psychoeducational or didactic approaches) and are tailored to the specific learning style, motivation level and abilities of the offender (the *responsivity* principle). The risk, need, responsivity (RNR) framework, which arose from the substantial evidence-base of the psychology of criminal conduct (Andrews & Bonta, 2010), has been officially adopted by the NZ Department of Corrections and serves as the guiding principles of its current offender rehabilitation strategy (Department of Corrections, n.d.).

The Beginnings of a Solution

In contrast to previous approaches that take a monolithic view of IPV, such as the Duluth Model (Pence & Paymar, 1983), the RNR framework enables the intensity and focus of interventions such as non-violence programmes to be tailored to the specific risk profiles and offending-related needs of IPV perpetrators (Babcock et al., 2016). In addition, the need principle underscores the importance for interventions to identify treatment targets that are empirically-validated *dynamic* risk factors; namely, offender characteristics in which observed change leads to a subsequent reduction in offending behaviour (Andrews & Bonta, 2010). *Dynamic* risk factors are emphasised because, in contrast to *static* risk factors (age, offending history), which are fixed or slow to change, dynamic factors (e.g., antisocial attitudes, substance use issues) can often be more effectively targeted in interventions (Andrews & Bonta, 2010). However, as the following chapter will show, the research literature bearing on understandings of partner aggression is vast, complicated, and overflowing with a plethora of potentially relevant risk factors. Therefore, more research on the nature and significance of risk factors for partner abuse, particularly in a New Zealand context, is likely needed to enhance the efficacy of current treatment approaches. Before describing the present study, we will first examine research relating to risk factors for partner aggression.[1]

[1] Throughout this thesis, the terms “partner violence,” “domestic violence,” “partner abuse,” and “partner aggression” are used interchangeably.

Chapter 2: Literature Review

Overview

Research interest in domestic violence has grown exponentially in the last few decades, accompanied by a growing recognition that IPV is a complex, multidimensional phenomenon perpetrated by a diverse group of men and women (Dixon & Graham-Kevan, 2011). The complexity of IPV is illustrated by the dizzying array of correlates, risk factors, and aetiological models proposed by scholars attempting to shed light on this common and concerning social issue. To name just a few, IPV has been linked to the patriarchal nature of societies (Dobash & Dobash, 1979), the impact of economic disadvantage on families (DeMaris, Benson, Fox, Hill, & Van Wyk, 2003), the disinhibitory effect of alcohol on aggression (Foran & O'Leary, 2008), male anger and jealousy stemming from insecure attachment and fears of abandonment (Dutton & White, 2012), and the communication strategies used by couples to resolve their conflicts (Babcock, Waltz, Jacobson, & Gottman, 1993). Research suggests that single risk factors for domestic violence include being young (i.e., under 30 years of age), unemployed, having a low income, elevated levels of anger and hostility, attitudes supportive of violence, alcohol and substance abuse issues, depression, and an unhappy or highly conflictual romantic relationship (see Capaldi, Knoble, Shortt, & Kim, 2012 for a comprehensive review of risk factors for IPV).

The identification of reliable risk factors for IPV is crucial to societal efforts to reduce IPV, as it will enable: (a) the development of empirically-fruitful theoretical models for partner abuse; (b) the improvement of IPV risk assessment and management methods for human service practitioners; and (c) the development of more effective IPV interventions, including non-violence programmes (Birkley & Eckhardt, 2015). Risk factors can be defined as perpetrator characteristics that are associated with an increased likelihood of a problem behaviour occurring when they (i.e., the risk factors) are present; though this does not mean that such factors necessarily have a direct causal relationship with that behaviour (Stith, Smith, Penn, Ward, & Tritt, 2004).[2] Although international IPV risk factor research may apply

[2] In the following literature review, the term "risk factor" will be used to refer to characteristics of IPV perpetrators identified in cross-sectional and longitudinal research, although, strictly-speaking, only factors identified using the latter design (i.e., prospective longitudinal design) can be said to be dynamic risk factors (or "dynamic predictors") in the psychology of criminal conduct sense (see

to New Zealand populations, the extent to which it does has not yet been explored empirically. Moreover, the often-discouraging findings of international outcome studies of non-violence programmes highlight a general need for more and better information about the treatment needs of partner abusive men.

The literature review now considers theory and research pertaining to the risk factors for partner aggression. Firstly, we briefly describe and critique the traditional feminist conceptualisation of IPV. Secondly, we contrast that theoretical perspective with three recent multifactor aetiological frameworks for understanding partner abuse: namely, nested ecological systems theory (Dutton, 2006), a dynamic developmental systems perspective (Capaldi, Shortt, & Kim, 2005), and the I^3 model (Finkel & Hall, 2018). Thirdly, we reintroduce the risk, need, responsivity (RNR) framework for effective human service interventions and examine, in detail, research relating to the following IPV risk factors: anger issues, jealousy, mental wellbeing, substance use, financial and other stress, and relationship satisfaction and discord. We conclude this chapter with a description of the present study.

The Traditional Feminist View of Partner Violence

Feminist theories of partner violence argue for the central role of sociocultural structures and processes, particularly those relating to gender socialisation and the privileged position of men in society (Bell & Naugle, 2008). Gender inequality at the societal level is held to play out in the context of intimate relationships, where men will use physical violence to (re)assert their patriarchal authority when it is challenged (Dobash & Dobash, 1979; Straus, 1976). From a feminist perspective, referred to as the "gendered view" by some (e.g., Dixon & Graham-Kevan, 2011), partner aggression is perceived primarily as a problem of male violence against women. Which is held to both reflect a women's subordinate status in the family and wider society and be a means by which that inferior status is maintained (Straus, 1976; Dobash & Dobash, 2004). Although partner violence where the woman is the perpetrator is acknowledged within this paradigm, a traditional feminist analysis contends that female partner violence usually arises from within a context of patriarchal oppression and thus will usually constitute self-defence, retaliation, or a pre-emptive strike against future male violence (Dobash & Dobash, 2004).

Andrews & Bonta (2010), for a discussion of the difference between "simple predictors," "dynamic predictors," and "functional variables" in regards to criminal behaviour).

The gendered view has had a pervasive impact on domestic violence policy in western societies and lies at the philosophical heart of many traditional non-violence programmes still in use, especially the Duluth men's programme (Dixon & Graham-Kevan, 2011; Eckhardt et al., 2013). However, over the last two decades the core tenets of this perspective have been undermined by numerous studies, leading some to question its validity (e.g., Cannon et al., 2016; Dixon & Graham-Kevan, 2011; Dutton & Nicholls, 2005). For example, there is now considerable evidence that women perpetrate equal, if not slightly greater rates of violence against their partners than men do (e.g., Archer, 2000; Schumacher & Leonard, 2005). [3] In addition, research indicates that in most physically abusive relationships, IPV is used by both partners (Langhinrichsen-Rohling, Misra, Selwyn, & Rohling, 2012), and that women are often the initiators of this aggression, particularly in adolescent dating relationships (Capaldi, Kim, & Shortt, 2007). Moreover, survey research has identified a range of self-reported motives for heterosexual women's partner violence (see Bair-Merritt et al., 2010). These motives include anger, getting a partner's attention, and a desire to control a male partner

In view of these and other unsupportive findings, some researchers have argued that the feminist conceptualisation of partner aggression is essentially an ideologically-driven, single-factor theory, which, given the emerging complexity of IPV, is incapable of providing an effective framework for domestic violence interventions (Dutton, 2010; Dixon & Graham-Kevan, 2011). From a traditional feminist perspective, a belief system that endorses male power and control over women is the lynchpin risk factor for domestic violence; the risk factor from which all other factors originate (Dobash & Dobash, 1979; Straus, 1976; DeKeseredy, 2016). And the aim of feminist-inspired non-violence programmes, such as the Duluth programme, is to make men aware of the traditional gender attitudes and beliefs underpinning their abusive relationship behaviours (Pence & Paymar, 1983). The pivotal implication of a feminist analysis, however, is that ultimately patriarchal societal structures and systems (e.g., current parenting and educational practices, organisational cultures) will need to be overhauled in favour of greater gender equality if IPV is to be eliminated completely (Dutton, 2006).

However, research investigating patriarchal attitudes in relation to IPV has reported conflicting findings (Stewart et al., 2013). For example, one meta-analysis

[3] It should be noted, however, that female victims of IPV are more likely than male victims to experience adverse mental and physical health outcomes (Lawrence, et al., 2012).

found that violent men were *less* likely than non-violent men to support rigid gender stereotypes and that across the studies examined, assaulted wives tended to have more liberal gender attitudes than non-assaulted wives (Sugarman & Frankel, 1996). Another meta-analysis, this one based on an examination of five studies, indicated that a traditional sex-role ideology *was* a moderately strong risk factor for male-perpetrated physical partner abuse (Stith et al., 2004). However, sex-role ideology was just one of many risk factors this meta-analysis identified, along with illicit drug use, marital dissatisfaction, and career/life stress (Stith et al., 2004). A large review of domestic violence risk factor research (mostly cross-sectional studies) concluded that attitudes supportive of IPV, whether based on a belief in male dominance or underpinned by other less sexist justifications, tend to be low to moderate strength predictors of partner aggression (Capaldi et al., 2012). Finally, a review study of research investigating sex differences in motivations for partner abuse indicated that findings are mixed as to whether men are more likely than women to report using IPV to control their partners (Langhinrichsen-Rohling, McCullars, & Misra, 2012), a concept central to the Duluth model.

In summary, the extant research does not support a narrowly gendered view in which partner violence is viewed primarily as a problem of male violence against women or as arising solely (or even principally) from factors related to gender inequality (Dixon & Graham-Kevan, 2011). Rather, the research supports a cross gender approach that encompasses a wide array of risk factors for the partner abuse of both sexes (Dixon & Graham-Kevan, 2011; Dutton, 2006). This is not to say patriarchal attitudes are unimportant, however. Cross-cultural research suggests that countries low in female empowerment (i.e., as measured by women's access to health, education, legal, and other resources) tend to have higher national rates of IPV (Archer, 2006). Furthermore, as some have pointed out (e.g., DeKeseredy, 2016), there are multiple *feminisms* (as well as several types of patriarchy), and. a feminist analysis is not necessarily incapable of incorporating multiple risk factors (DeKeseredy & Schwartz, 2013). However, for IPV perpetrators in "Western" nations there is limited evidence that patriarchal attitudes are the sole or even critical factor in partner abuse (Dixon & Graham-Kevan, 2011).

Multifactor Aetiological Frameworks

As indicated at the beginning of this chapter, the aetiology of partner abuse has now been studied extensively, with research identifying a large body of individual, interpersonal, and contextual risk factors for male-to-female IPV perpetration (Capaldi et al., 2012). In consequence, the traditional single-factor feminist theory has largely been marginalised in IPV research, side-lined in favour of approaches that can account for multiple risk factors and diverse pathways to partner abuse (DeKeseredy, 2016). As DeMaris and colleagues (2003) have pointed out, intimate partner violence likely 'has its etiology in a diversity of forces operating at different levels of social life' (p. 652). Accordingly, scholars have started to develop multifactor theoretical models that encompass a host of perpetrator characteristics, along with the interpersonal and wider social contexts within which partner violence takes place.[4]

One such model is Dutton's (2006) nested ecological systems theory (NEST). Based on a social learning theory perspective and borrowing from Bronfenbrenner's (1979) multilevel framework of the same name, NEST contends that external risk factors for partner abuse exist at three levels of the individual's social context: the *macrosystem*, *exosystem*, and *microsystem*. The *macrosystem* refers to the broad sets of cultural beliefs and values that help shape men and women's relationship expectations (e.g., norms regarding gender roles). Formal and informal social structures, such as work groups, friendship groups, peer groups, and support groups, constitute the exosystem. At this level, job stress, unemployment, and the absence of social support networks might increase the individual's risk of perpetrating partner abuse. The microsystem refers more precisely to characteristics of the immediate setting in which partner abuse takes place; that is, the structure and dynamics of the family unit itself. The interaction patterns of the couple, the conflict issues affecting them, and the antecedents and consequences of an IPV event are all part of the microsystem. At the centre of these mutually interacting layers of social influence is the individual or ontogentic level. Which includes all aspects of the individual's developmental history that shape his (or her) ability to respond to stressors emerging from his relationship/family context and from his multi-layered milieu. Risk factors for IPV perpetration here might include previous

[4] Sometimes referred to in the IPV literature as "meta-theories" (Birkley & Eckhardt, 2015).

exposure to parental violence, anxiety about intimacy, poor emotional regulation, ineffective conflict resolution skills, and a strong need to dominate in relationships (Dutton, 2006).

To empirically test Dutton's (2006) conceptualisation, a meta-analysis conducted by Stith and colleagues (2004) used the ecological levels of NEST to organise risk factors for male and female-perpetrated physical IPV and for women's physical IPV victimisation.[5] For male perpetration, these authors found moderate effect sizes for several ontogentic risk factors, including a traditional sex role ideology (5 studies; r = .29), anger/hostility (10 studies; r = .26), alcohol abuse (23 studies; r = .24), and depression (14 studies; r = .23). Meanwhile, strong effect sizes were found for illicit drug use (5 studies; r = .31) and having attitudes condoning marital violence (5 studies; r = .30). Interestingly, however, the strongest effect sizes were found for what Stith and colleagues (2004) defined as macrosystem risk factors—emotional/verbal abuse (15 studies; r = .49), forcing a partner to have sex (6 studies; r = .45), and marital satisfaction (25 studies; r = -.30)–and not for ontogentic risk factors as Dutton's (2006) model would predict, these being more proximal factors.[6] By contrast, effect sizes for exosystem factors were, with the sole exception of career/life stress (4 studies; r = .26), small and negative: being unemployed (6 studies; r = -.10), having a lower income (23 studies; r = -.08), a younger age (28 studies; r = -.13), and a lower educational level (25; r = -.13). Furthermore, the largest effect size found for female victimisation was the victim herself using physical IPV (5 studies; r = .41; Stith et al., 2004).

NEST has many strengths over traditional models of partner aggression. For one, it provides a relatively comprehensive framework for incorporating various risk factors. In contrast to a traditional feminist conceptualisation of IPV, NEST helps explain why men and women socialised in the same sociocultural setting perpetrate partner aggression at different rates, which it does by taking account of individual differences in psychological characteristics (Dutton, 2006). Equally, NEST acknowledges that men whose characteristics elevate their risk of partner aggression do not exist in a sociocultural vacuum and are likely influenced by cultural norms and prescriptions regarding gender and relationship roles. And as NEST makes clear, to more fully understand IPV, contextual factors related to

[5] There were insufficient studies to produce a composite effect size for male victims.
[6] Arguably, however, forcing a partner to have sex and emotional/verbal abuse are better defined as individual-level factors and/or as other types of intimate partner violence.

relationship/family functioning (e.g., relationship conflict), as well as the impact of stressors embedded in the perpetrator's broader social networks (e.g., financial and work stress), should also be considered alongside individual factors (e.g., substance use, anger management issues; Dutton, 2006).

As an aetiological framework, however, NEST is unable to explain the precise mechanisms through which risk factors interact to produce an IPV event, providing only a 'topographical overview' of the variables related to partner abuse (Birkley & Eckhardt, 2015). In addition, NEST appears to neglect the interaction between two different, though closely-related, sets of developmental risk factors; namely, those of the perpetrator *with* those of the partner.

A dynamic developmental systems (DDS) perspective, on the other hand, explicitly takes account of what both partners can bring to a romantic relationship (e.g., personality, psychopathology, peer associations), the circumstances in which IPV typically occurs (e.g., an argument over finances, career stress), and the changing nature and quality of the dyad over time (Capaldi & Kim, 2007). A major advantage of this perspective, therefore, is that it can encompass perpetrator/partner characteristics, contextual factors, and relationship dynamics–along with a consideration of the impact of multiple levels of developmental time; that is, the age and maturity of perpetrator *and* the stage of the relationship. It is possible, for example, that in early stage relationships IPV is related to relationship insecurity and jealousy, whereas in later stage relationships more often due to difficulties negotiating relationship roles and to waning relationship satisfaction (for further explanation of a DDS perspective, see Capaldi, Shortt, & Kim, 2005).

There is another multifactor perspective called the I^3 model (pronounced the "I-cubed model"), which examines how different factors interact to produce interpersonal aggression, and this has been applied to IPV (Finkel & Hall, 2018). Briefly, the I^3 model views interpersonal aggression as a function of three processes: (1) *instigation*, which refers to immediate situational factors that incline a person towards aggression (e.g., provocation); (2) *impellance*, which refers to situational and dispositional qualities that affect the strength of the individual's response to the instigator (e.g., propensity for anger and hostility); and (3) *inhibition*, which refers to the individual's ability to override his proclivity to aggress; (e.g., self-control, conflict resolution strategies; Finkel, 2007). According to this view, partner violence is more likely to occur in circumstances where instigation and impellance are strong and inhibition is weak, referred to as the "perfect storm" conditions for

aggression (Finkel, 2007). In this way, the I^3 model, unlike Dutton's (2006) conceptualisation, examines in detail the interaction between risk factors during an IPV event. For example, a "perfect storm" in the sense of partner abuse might consist of a heated argument about perceived or actual infidelity (a strong instigator), a tendency towards explosive displays of anger combined with a hostile attribution bias (strong impellance), and low self-control due to high levels of stress, alcohol use, attitudes supportive of using violence, or a limited repertoire of effective conflict resolution strategies (weak inhibition).

To summarise, theoretical models are beginning, with some success, to capture the complexity of the phenomenon that is IPV. Despite their differences in emphasis, however, ecological systems theory (Dutton, 2006), a dynamic developmental systems perspective (Capaldi et al., 2005), and the I^3 model (Finkel & Hall, 2018) all share a common theme: partner violence arises out of a convergence of diverse risk factors. Importantly, the upshot of a broad multifactor conceptualisation is that each risk factor might represent a fruitful target for IPV prevention and intervention efforts. This multifactor approach stands in marked contrast with a traditional feminist view of IPV, which has emphasised male dominance and a patriarchal belief systems, while often dismissing the importance of individual level risk factors, such as anger issues and alcohol abuse (Dobash & Dobash, 1979; Straus, 1976; Pence & Paymar, 1983). As will be argued next, IPV intervention and prevention efforts may stand to be more effective if they can countenance multiple causes of partner violence.

The Risk, Need, and Responsivity Framework for Effective Correctional Interventions

At present, individual and group-based non-violence programmes are an important part of New Zealand's strategy for preventing family violence (Polaschek, 2016). However, in the absence of local evaluation studies on such programmes, the discouraging findings of international evaluation research on BIPs raises doubts about the efficacy of our current approaches (Babcock et al., 2004; Feder & Wilson, 2005, Eckhardt et al., 2013). In the United States, a national survey of batterer intervention programmes (BIPs) highlighted shortcomings in many BIPs currently in use, the most concerning of which was a lack of provider knowledge about the causes of intimate partner violence (Cannon et al., 2016). In fact, nearly 50% of the

providers surveyed believed that patriarchy is a "very important" causal factor in partner aggression, whereas only about a third believed that having an abusive partner, mental health issues, or an aggressive personality is "very important" (Cannon et al., 2016). There has been some debate as to whether intimate partner violence shares aetiological factors with other types of criminal offending (e.g., Moffitt, Krueger, Caspi, & Fagan, 2000), but increasingly scholars (e.g., Dixon & Graham-Kevan, 2011; Stewart et al., 2013; Babcock et al., 2016) have urged domestic violence interventions to adopt the principles of effective corrections from the "what works" rehabilitation literature (Andrews & Bonta, 2010). And these are the principles of risk, need, and responsivity (RNR).

To reiterate, the RNR rehabilitation framework contends that correctional interventions are most likely to succeed when they: (a) match the intensity of treatment with the risk-level of the offender (the *risk principle*); (b) target empirically-supported dynamic risk factors (the *need principle*); and (c) are delivered using behavioural and cognitive approaches that are tailored to the unique learning style and abilities of the offender (the *responsivity principle*; see Andrews & Bonta, 2010). Based on a general personality and cognitive social learning perspective of human behaviour, the RNR model emerged out of the substantial evidence-base of the psychology of criminal conduct, which has identified, via meta-analyses, sound empirically-supported risk factors for general offending referred to as the "Central Eight" risk factors (e.g., history of antisocial behaviour, antisocial cognitions, troubled family/marital circumstances, substance abuse). Unlike batterer intervention programmes, RNR-adhering general offender programmes have been found to lead to significant reductions in recidivism compared to no-treatment control groups (Landenberger & Lipsey, 2005).

The need principle of RNR highlights the importance of focussing on empirically-validated *dynamic* risk factors in interventions; that is, characteristics of an offender that if changed, result in reductions in reoffending. In this context, though, both *static* (i.e., unchangeable or slow to change) and *dynamic* factors are important to consider for the purposes of risk assessment, case planning, and the allocation of offenders into appropriate levels of treatment (i.e., the risk principle). Importantly, a general value underlying the psychology of criminal conduct and, by extension, RNR is a "respect for evidence" (Andrews & Bonta, 2010, p. 7). Arguably, this is an emphasis that is sorely needed in the study of partner aggression given its historical preferencing of ideology over empiricism. From an RNR

perspective, the strongest support for the validity of an IPV treatment target is empirical evidence (i.e., ideally experimental but, in practice, more usually longitudinal and cross-sectional findings) showing that alteration in the strength of a risk factor is associated with a subsequent reduction in partner violence. Furthermore, a key clinical principle underlying RNR is *breadth*, which in recognition of the complexity of human behaviour, holds that interventions increase their chances of success when they target a broad range of offending-related factors (Andrews & Bonta, 2010). Thus, given its apparent compatibility with emerging multifactor understandings of IPV (e.g., Dutton, 2006; Capaldi et al., 2005), an RNR framework could serve to both broaden and deepen the focus of current IPV intervention and prevention efforts in New Zealand and abroad.

With a view to contributing to the "what might work" literature for IPV interventions in New Zealand, the present study investigated some potential dynamic risk factors of partner aggression among men undertaking a community-based non-violence programme. In the following discussion, these risk factors are organised according to the levels of Dutton's (2006) ecological conceptualisation of partner abuse. This means that individual level (or ontogentic) risk factors are examined first—anger problems, romantic jealousy, mental wellbeing, substance use, and financial and other stress—followed by relationship level (or macrosystem) factors: relationship discord, verbal aggression, and relationship satisfaction. Finally, we conclude this chapter with a description of the present study.

Anger Problems

Advocates have been critical of the idea that the anger-related issues of perpetrators are critical to an understanding of IPV (Pence & Paymar, 1983; Women's Refuge, 2016), with some scholars cautioning against a strong focus on anger management in IPV interventions (Gondolf & Russell, 1986; Gondolf, 2007).[7] For example, it has been argued that many partner-violent men use anger, mental health issues, alcohol problems, and other "excuses" to shirk responsibility and divert attention from the chief underlying motive: patriarchal power and control (Pence & Paymar, 1993; Gondolf, 2007). Another potential danger here, according to some, is that anger-based theories of IPV, when applied to the design of non-violence

[7] "Anger-related issues" refer to both a propensity to become angry and a tendency to express anger in unhelpful ways, including with violence.

programmes, may encourage self-justification and victim-blaming among perpetrators and actually serve to perpetuate the abuse (Gondolf & Russell, 1986).

Although these are no doubt valid concerns, research does suggest that anger-related factors are moderately associated with physical IPV perpetration (Birkley & Eckhardt, 2015). For instance, one study found that violent husbands are more likely than their non-violent counterparts to report anger and irritation in response to written and visual portrayals of negative wife behaviours (Holtzworth-Munroe & Schmutzler, 1996). A New Zealand study of more than 800 young adults found that the trait of *negative emotionality*–'a propensity for experiencing aversive affective states, including anger, anxiety, suspiciousness and irritability' (p. 222)—was a shared risk factor for both partner aggression and general crime (Moffitt et al., 2000). Besides having a greater propensity to become angry, partner violent men might be more likely to behaviourally express anger and be less likely to make efforts to reduce or control angry feelings (Barbour, Eckhardt, Davison, & Kassinove, 1998). In other words, differences in anger *control* might help explain why some anger-prone men engage in IPV while others do not. Furthermore, both men and women frequently identify the expression of negative emotions, including anger, as a motive for using violence against their partners (Langhinrichsen-Rohling, et al., 2012a).

More recently, a meta-analysis examined 128 studies that investigated associations between anger, hostility, internalising negative emotions and IPV (Birkley & Eckhardt, 2015). In doing so, these authors distinguished between *anger*, which they defined as a multidimensional construct consisting of inflammatory physiological arousal, cognitive appraisals about the meaning of anger-provoking events, the subjective labelling of anger, and behavioural expressions of anger; and *hostility*, which consists of a tendency to dislike and make negative evaluations of others. They found that, as a combined construct, anger/hostility was moderately associated with physical IPV perpetration (d = .64), with the effect size for hostility (d = .56) slightly higher than the effect size for anger (d = .48; Birkley & Eckhardt, 2015). Furthermore, associations between anger/hostility and IPV were moderated by IPV severity, with those engaging in moderate to severe levels of IPV generally reporting higher levels of anger and hostility than those engaging in low to moderate IPV (Birkley & Eckhardt, 2015).

Regarding theoretical models, social learning theory has made important contributions to understandings of interpersonal aggression by proposing that

aggressive behaviour, including partner abuse, is acquired through basic principles of learning (e.g., classical conditioning, operant conditioning, and observational learning; Bandura, 1973). Viewed as a response that seeks to eliminate or control an aversive situation, IPV might be associated with several rewards for the perpetrator, such "blowing off steam" or ending a heated argument. Such reinforcers can shape him to act aggressively in future partner conflicts (Dutton, 2006). Consistent with the modelling concept of social learning theory, a handful of prospective longitudinal studies indicate that exposure to IPV in the family origin and physical abuse as a child elevate one's own risk of perpetrating partner violence (Linder & Collins, 2005; Ehrensaft et al., 2003). Furthermore, various social information processing deficits, including impaired recognition of facial expressions, limited empathy, and a hostile attribution bias, might increase men's risk of engaging in partner violence, particularly when combined with alcohol intoxication (Clements & Schumacher, 2010). Taken together, the above theory and research on learning and behaviour do highlight the importance of targeting anger and its associated cognitions in IPV interventions.

Romantic Jealousy

Jealousy and anxiety about abandonment may be particularly prominent among men who perpetrate IPV, with jealousy being both a frequently-identified motive (Langhinrichsen-Rohling et al., 2012a) and a common situational antecedent (Babcock, Costa, & Eckhardt, 2004) for partner abuse. A prospective longitudinal study, which used both perpetrator and partner reports of abuse, found that jealousy predicted young men's physical IPV after controlling for suicide attempt history, adolescent aggression, and relationship satisfaction (Kerr & Capaldi, 2011). A study of university dating couples found that men who believed their partner had an interest in other men were more likely to engage in controlling relationship behaviours, which in turn were positively related to physical partner aggression (Cousins & Gangestad, 2007). Interestingly, men's perceptions of a partner's interest in others was a stronger predictor of physical IPV than both women's self-reported interest in other men and self-reported number of past infidelities. These findings suggest that physical IPV might occur more because of men's *belief*s rather than real indicators of partner infidelity (Cousins & Gangestad, 2007).

More recently, a study examined the self-reported relationship problems of 539 men presenting for treatment at a community-based abuse intervention provider (LaMotte, Meis, Winters, Barry, & Murphy, 2018). "Your partner's jealousy" and "Your jealousy" were endorsed as problems by approximately 59% and 41% of the men, respectively. A principal components analysis of the survey items used in that study identified seven broad areas of relationship problems (e.g., communication/money management, substance use, sexual differences), of which mistrust/jealousy had a weak and positive association with both physical IPV and various types of emotional abuse (LaMotte et al., 2018). A limitation of this study, however, was the measuring of jealousy as a "relationship problem" (as opposed to measuring jealous *cognitions*), which due to defensiveness or a lack of insight on the part of some participants may have led to underreporting.

As to the theoretical side, some researchers have suggested that intimate partner violence might constitute a mate-retention tactic; a means by which a man exerts control over his partner's sexuality and keeps her in the relationship (i.e., through the threat and use of physical force; Cousins & Gangestad, 2007). This argument is often informed by sociobiological perspective, which views jealousy as a defence against cuckoldry and parental investment in another man's offspring (Daly, Wilson, & Weghorst, 1982). But arguably there are few benefits to acting on irrational beliefs of infidelity; and such beliefs are frequently seen in men undergoing clinical treatment for IPV (Dutton, 2006). Moreover, research indicates that relationship problems such as jealousy and partner violence actually increase a relationship's risk of dissolution and divorce (Amato & Rogers, 1997; Yoon & Lawrence, 2013).

Attachment-related disorders and difficulties, on the other hand, may be among the most important psychological risk factors for IPV (see Dutton & White, 2012) and help explain the constellation of negative emotions, including jealousy, often identified in IPV research. Following a perceived or actual threat to the security of the relationship (e.g., perceived partner infidelity), men fearful of being abandoned or rejected by their partners (i.e., avoidant and anxiously attached men) may be more prone than securely attached men to experience intense anger and jealousy, in turn putting them at greater risk of perpetrating IPV (Holtzworth-Munroe, Stuart, & Hutchinson, 1997). From the perspective of attachment theory, partner aggression is viewed as a "protest behaviour" aimed at regaining closeness to an important attachment figure (i.e., the romantic partner) with its psychological

roots in fears of abandonment and negative past experiences (Dutton, 2006). Overall, however, studies investigating associations between attachment disorders and IPV have had somewhat mixed findings (Capaldi et al., 2012), as has research examining whether attachment styles predict partner aggression via the mediation pathways of anger and jealousy (Belus et al., 2014; LaFontaine & Lussier, 2005).

In summary, research suggests that excessively jealous and proprietary men are at increased risk for perpetrating IPV. Furthermore, there is evidence that *morbid jealousy*–a psychiatric disorder characterised by obsessive and delusional beliefs about the infidelity of a current or former romantic partner–may be an important factor in some of the most extreme forms of IPV, such as stalking and intimate partner homicide (Harris, 2003). Cognitive behavioural-based treatment has been found to be of benefit to those suffering from morbid jealousy (Dolan & Bishay, 1996), although as far as we are aware, there have been no evaluation studies of non-violence programmes that explicitly target jealousy-related cognitions and attachment problems.

Mental Wellbeing: Anxiety and Depression

Recently, a meta-analysis was conducted on 207 studies that examined associations between mental health disorders and symptoms (including depression, anxiety, post-traumatic stress disorder, antisocial personality disorder, and borderline personality disorder) and physical IPV perpetration and victimisation among men and women (Spencer et al., 2019). The meta-analysis found that all mental health factors were significantly related to IPV perpetration and victimisation for both sexes (Table 7, p. 6), with small to moderate associations for male IPV perpetration and anxiety (r = .14) and depression (r = .21). There were no significant differences in mental health factors related to IPV for men versus women, with sole exception of depression, which was more strongly associated with IPV victimisation for women (r = .28) than for men (r = .18; Spencer et al., 2019). The Stith et al. (2004) meta-analysis, on the other hand, included 14 studies examining depression and male-perpetrated IPV, of which 12 found significant effect sizes. A moderate overall effect size for depression and male physical IPV was found (d = .48), which was stronger than the effect found for jealousy and IPV (d = .35) but weaker than the effect for anger/hostility (d = .54).

Studies investigating depression and IPV have generally employed cross-sectional designs, often relying on retrospective reporting of aggression and the measurement of mental health variables after the fact (Dutton & Karakanta, 2013). When examined in prospective longitudinal studies, the depression-IPV association becomes more complex and less consistent. For example, a longitudinal study of young, at-risk couples found that men's depressive symptoms were concurrently related to psychological and physical abusiveness against their partners over time (Kim & Capaldi, 2004). Another finding was that women's depressive symptoms predicted men's psychological abuse 'additively and interactively' (p. 93), that is, above the contribution of men's own depressive symptoms and antisocial behaviour (Kim & Capaldi, 2004). In a later longitudinal study with the same sample, men's depressive symptoms did not predict the physical and psychological abuse of their partners, but women's depressive symptoms did predict male IPV (Kim, Laurent, Capaldi, & Feingold, 2007). A large review of risk factor research concluded that the association between depression and men's IPV is often not robust in multivariate analyses (i.e., once the influence of other risk factors has been statistically controlled for) and that depression appears to be a more important IPV risk factor for women's IPV perpetration (Capaldi et al., 2012).

One possibility is that the link between depression and IPV is explained in part by the personality constellation of *negative emotionality*, which entails a susceptibility to irritability and negative affect, including depression (Kim & Capaldi, 2004; Moffitt et al., 2000). Consistent with this view, negative emotionality has been found to longitudinally predict IPV in the transition from adolescence to adulthood (Moffitt et al., 2000), and research suggests a small association between internalising negative emotions (i.e., anxiety, depression, and negative emotionality) and physical IPV (Birkley & Eckhardt, 2015). Dutton and Karakanta (2013) argue that, given the limited number of prospective longitudinal studies in this area, the evidence does not yet support the view that depression plays a causal role in partner aggression, with cause and effect being impossible to determine from cross-sectional designs. Probably, the somewhat counterintuitive association between depression and aggression is likely due to a third factor related to both depression and aggression (e.g., irritability, anxious attachment, borderline personality disorder) or to the adverse psychological and behaviour consequences

of depression, which can include loss of social support, isolation, angry rumination, and increased alcohol intake (Dutton & Karakanta, 2013).[8]

In summary, the extant research suggests that depression is a risk factor—albeit a minor, indirect, and often inconsistent one—for partner aggression. As with jealousy, there is some evidence that depression may be an especially prominent factor in severe forms of IPV, such as spousal homicide (Stewart et al., 2013). However, the relative lack of longitudinal studies investigating mental health factors in relation to IPV means that it cannot yet be conclusively stated that they are more than simply correlates of partner aggression.

Alcohol and Drug Use

A wealth of cross-sectional and longitudinal research has explored alcohol use in relation to partner aggression, though, as will be shown below, *how* alcohol relates to IPV has been the subject of debate. As a risk factor for IPV, other drug use has received less research attention but like alcohol use, is likely a moderate-strength risk factor for partner violence (Capaldi et al., 2012). Based on an examination of 47 studies, one meta-analysis found a small to moderate overall effect size for the association between alcohol use/abuse and male-to-female physical IPV (r = .23) and a small effect size for female-to-male physical IPV (r = .14; Foran & O'Leary, 2008). The alcohol-IPV link was strongest for measures of alcohol *problems* (e.g., abuse, dependence, and drinking problems) as opposed to quantity or frequency measures and was stronger for clinical samples than for community samples (Foran & O'Leary, 2008). Another more recent meta-analysis examined 285 studies exploring the link between substance use (i.e., alcohol and other drug use) and physical IPV perpetration and victimisation (Cafferky, Mendez, Anderson, & Stith, 2018). It found a moderate overall effect size for substance use and male-perpetrated IPV (r = .22), with the effect size for other drug use (r = .23) not significantly different from that for alcohol use (r = .20; Cafferky et al., 2018). However, there was a significantly stronger effect size for the association between other drug use and IPV victimisation (r = .23) than for alcohol use and IPV victimisation (r = .17; Cafferky et al., 2018).

[8] Counterintuitive in the sense that aggression is almost by definition a high-energy response, whereas depression is typically associated with energy depletion.

There is compelling evidence that alcohol use is an important proximal risk factor for partner aggression, and this is hypothesised as being due to the disinhibitory effect of alcohol on higher-order cognitive functions related to aggression. This theoretical perspective is sometimes referred to as the "proximal effects model" (Klostermann & Fals-Stewart, 2006). Consistent with this perspective, Fals-Stewart (2003) found that men entering treatment for alcohol problems were 8-19 times more likely to commit physical IPV on a drinking day compared to a non-drinking day. In a similar study, Moore and colleagues (2011) used electronic diary technology to assess the daily drinking of male and female college students for two months. They found that the student's odds of psychological and physical partner aggression were 2.19 and 3.64 times greater, respectively, on drinking days compared to non-drinking days, with men being more than seven times more likely to engage in psychological aggression on a drinking day (Moore et al., 2011).

However, when measured longitudinally, the link between alcohol and IPV is often found to be not strong, straightforward or as consistent as has been assumed (Capaldi et al., 2012). For example, several international longitudinal studies have found that, after controlling for potentially confounding variables such as the alcohol and drug use of a female partner, men's alcohol use did not uniquely predict IPV (Feingold, Kerr, & Capaldi, 2008; Herrenkohl, Kosterman, Mason, & Hawkins, 2007). Findings such as these have led some to argue that alcohol use does not cause partner aggression but rather covaries with other, more directly-relevant risk factors, such as being younger, having a general antisocial orientation, and experiencing relationship conflict and distress (Klostermann & Fals-Stewart, 2006). Conversely, this no-causal-role view of alcohol in the context of IPV–the "spurious effects model" as it is sometimes termed–is contradicted by a large body of cross-sectional research, as well as by some longitudinal studies (e.g., Schluter, Abbott, & Bellringer, 2008; White & Chen, 2002), showing a link between alcohol use and IPV even after controlling for age, socioeconomic status, financial stress, depressive symptoms, and drug problems (e.g., Pan, Neidig, & O'Leary, 1994; Smith Slep et al., 2015).

Others have argued that alcohol use has indirect effects on partner violence, exerting its influence through relationship conflict and distress (Klostermann & Fals-Stewart, 2006). According to this "indirect effects model," alcohol use corrodes the quality of a relationship over time, increasing both the frequency of

arguments and the likelihood of aggression during an argument. And in these ways "sets the scene" for partner violence (Klostermann & Fals-Stewart, 2006). Providing some support for this view, a prospective longitudinal study of young dating couples found that relationship dissatisfaction fully mediated the association between alcohol use and IPV perpetration for men and women (White & Chen, 2002). And yet, in other studies where relationship level variables (e.g., relationship satisfaction and discord) are controlled for, the alcohol-IPV link has remained strong and significant (e.g., O'Keefe, 1997; Smith Slep et al., 2015).

Whether due to direct or indirect effects, the sway of the evidence suggests that problematic alcohol and other drug use are important risk factors for partner violence, although the precise ways in which they influence IPV are far from clear. Most compelling of all perhaps is research showing that married and cohabiting men who undergo outpatient alcohol treatment show significant reduction in IPV post-treatment compared with men who have not undergone such treatment (O'Farrell, Fals-Stewart, Murphy, & Murphy, 2003). Interestingly, there is evidence that the drug and alcohol use of female partners can be a more important predictor of women *and* men's IPV perpetration than men's own drinking and drug habits (Caetano, Field, Ramisetty-Mikler, & McGrath, 2005; Herrenkohl et al., 2007). In addition, research suggests that individual characteristics, particularly antisocial traits and behaviours, might mediate the influence of alcohol use on partner aggression for men (Hines & Straus, 2007). Finally, it is worth considering that increased alcohol and drug intake might occur *after* IPV perpetration, possibly as means to cope with the trauma, depression, or guilt associated with abuse. This possibility highlights the need for more longitudinal studies in this area so that the direction of the association can be observed.

Financial and Other Stress

Research indicates that IPV is disproportionately concentrated in financially disadvantaged populations (Benson & Fox, 2004) and that income and (un)employment, unlike educational level, tend to be robust predictors of partner aggression in multivariate analyses (Capaldi et al., 2012). A large cross-sectional study assessed mild and severe husband-to-wife physical aggression among a sample of 11,870 white men employed by the United States Air Force (Pan et al., 1994). This study found that male IPV was associated with lower income and that

that severe IPV was more associated with lower income than mild IPV (Pan et al., 1994). A New Zealand longitudinal study found that young Māori adults had higher rates of IPV perpetration and victimisation than non-Māori young adults but that these differences, though they remained significant, were reduced after controlling for socioeconomic/family functioning factors (i.e., educational achievement, employment, welfare dependence, parental drug use; Marie et al., 2008). Findings such as these, however, shed little light on the ways in which socioeconomic disadvantage might elevate or reflect IPV risk. And in theory, many individual and relationship level risk factors related to IPV could also accompany unemployment (e.g., anger and hostility, substance abuse issues, relationship discord).

Financial stress, as distinct from low income and unemployment, might a more directly relevant factor, though it continues to be somewhat neglected by research (Capaldi et al., 2012). For instance, another cross-sectional study using a large United States Airforce sample found that perceived financial stress uniquely predicted men's physical partner violence. However, financial stress did not predict men's clinically significant IPV (CS-IPV; that is, partner violence that led to injury and/or fear) after controlling for a host of other factors, including relationship satisfaction, alcohol problems, age, and personal coping (Smith Slep et al., 2015). Furthermore, community level factors (e.g., community safety and support, work relations), though significantly related to IPV and CS-IPV at the bivariate level, did not account for unique variance in partner aggression after controlling for the influence of individual level factors. These findings suggest that community level factors might have indirect effects on partner violence via financial stress, alcohol use and relationship functioning (Smith Slep et al., 2015). In another study, perceived financial stress was one of the strongest predictors of men and women's emotional abuse victimisation after controlling for several individual, relationship, and community factors (Foran et al., 2014). Here, certain community factors (e.g., less support from neighbours and less community cohesion) *were* significant unique predictors of emotional IPV victimisation (Foran et al., 2014). Taken together, these findings suggest that financial and other stress in relation to partner aggression warrants further investigation.

Relationship Discord, Verbal Aggression, Reciprocal Violence, and Interactional Styles

Besides individual level (or ontogentic) factors research has identified several relationship level risk factors for partner violence. In fact, there is evidence that some relationship level variables are more strongly associated with partner aggression than the psychological characteristics of the IPV perpetrators themselves. A previously-mentioned cross-sectional study, for example, found that for every 20% increase in self-reported marital discord, the odds of mild wife assault (i.e., non-injurious violence; typically pushing, shoving, or slapping) increased by 102% (Pan et al., 1994). Meanwhile the odds of severe wife assault (i.e., punching, kicking, and beating up) increased by 183%. Of all the risk factors examined in that study, marital discord had the strongest association with physical partner aggression, followed by alcohol/other drug use, depressive symptomatology, and age (Pan et al., 1994). Given its cross-sectional nature, however, the Pan et al. (1994) study was unable to determine whether poor relationship adjustment preceded or followed the marital violence it assessed.

Perhaps not surprisingly, research also shows that couples who argue more frequently, and in a more heated way, are at greater risk for IPV (DeMaris et al., 2003). In the study of men presenting for services at an abuser intervention programme, more severe relationship problems were associated with higher rates of physical and psychological partner aggression and with lower levels of relationship satisfaction (La Motte et al., 2018). The most common problems reported by these men were poor communication, difficulties over money, constant bickering, lack of trust between partners, and selfishness/lack of cooperation (LaMotte et al., 2018).

Furthermore, there is evidence that *verbal* aggression, sometimes referred to as emotional abuse, psychological aggression, or non-physical IPV, may be a powerful risk factor for physical IPV (Lawrence et al., 2009). A study examining IPV among high school students found that verbal aggression was associated with male-to-female physical partner abuse after controlling for socioeconomic status, alcohol use, and poor relationship adjustment (O'Keefe, 1997). Schumacher and Leonard (2005) longitudinally assessed physical aggression, psychological aggression (i.e., largely verbal aggression), and relationship adjustment at three points over the first two years of marriage in a sample of 643 couples. They found

that both husbands' and wives' verbal aggression longitudinally predicted husbands' physical aggression and that verbal—*not* physical—aggression was associated with declines in marital satisfaction (Schumacher & Leonard, 2005).

Moreover, there is evidence that physical IPV frequently arises from within a context of escalating disagreements (O'Leary & Smith Slep, 2006) and that men and women initiate physical relationship aggression at roughly equal rates (Capaldi et al., 2007). Indeed, a powerful risk factor for physical IPV victimisation is physical IPV perpetration (Stith et al., 2004) and an examination of married couples' violence trajectories has shown that one partner's physical aggression can longitudinally predict the use of violence by the other at a subsequent time point (Schumacher & Leonard, 2005). That IPV often arises from and entails a reciprocal exchange of negative affect, verbal aggression, and physical violence—both during an IPV event and over the course of a relationship—has been reflected in some interpersonal theoretical models of IPV. For example, violent couples may lack conflict resolution skills such that their arguments can spiral out of control and become physical altercations (Babcock et al., 1993). This view is supported by research showing that, during conflicts, violent couples use more escalating strategies (e.g., verbal aggression, movement-restricting behaviour) and fewer de-escalating strategies (e.g., verbal reasoning, conflict avoidance) than non-violent couples (Messinger, Davidson, & Rickert, 2011). Similarly, another study found that they (i.e., physically violent couples) were more likely to engage in negative reciprocity–a tendency to continue or reciprocate one's partner's antagonistic relationship behaviours (e.g., anger, hostility, contempt, and belligerence)–than both satisfied non-violent couples and discordant non-violent couples (Cordova, Jacobson, Gottman, Rushe, & Cox, 1993).

In summary, the research cited above suggests that relationship discord, verbal aggression, and the interactional styles of couples might help explain partner violence. It also suggests that some IPV perpetrators may benefit from non-violence programmes that teach communication, negotiation, and conflict resolution skills; although to date little research on the efficacy of such programmes has been conducted. Based on a recognition that IPV can emerge from dyadic processes involving mutual verbal and physical aggression, there have been calls for a wider adoption of couple counselling as an alternative modality to group-based non-violence programmes (Antunes-Alves & de Stefano, 2014). Furthermore, it should be said that although emotional abuse is now attracting increased research attention

(e.g., Foran et al., 2014), much of this past research has focussed on verbal aggression, leaving other potentially harmful types of non-physical IPV (e.g., economic control, hostile withdrawal, monitoring behaviours) largely unexamined.

Are Unhappy Relationships at Greater Risk for IPV?

Previous research seems to support the existence of an association between low relationship satisfaction/high distress and IPV. Another large cross-sectional study of United States Airforce personnel found that relationship distress and alcohol problems were the two strongest predictors of physical IPV perpetration, followed by financial strain and number of years in the military (Smith Slep, Foran, Heyman, & Snarr, 2010). By contrast, a meta-analysis of 32 studies examining associations between marital satisfaction/discord and IPV found a small to moderate overall effect size (r = -.27) and no significant difference between these two constructs in terms of the strength of their associations with IPV (Stith, Green, Smith, & Ward, 2008). The previously-mentioned Stith et al. (2004) meta-analysis found that marital satisfaction (r = -.30) was the fourth strongest risk factor for physical IPV, after emotionally abusing a partner (r = .49), forcing a partner to have sex (r = .45), and illicit drug use (r = .31).

The research pertaining to relationship satisfaction and partner aggression is largely cross-sectional and therefore unable to show whether distress is a cause of IPV, a consequence, or both. Examining the issue head on, a longitudinal study tracked the IPV and marital satisfaction trajectories of 127 newlywed couples over four years and found that, for husbands, fluctuations in physical aggression predicted changes in marital satisfaction more than changes in marital satisfaction predicted changes in their violence (Lawrence & Bradley, 2007). A further complication is highlighted by a study by Williams and Frieze (2005). Using national survey data, these authors examined patterns of IPV and psychosocial outcomes, including marital satisfaction, among married and cohabiting couples. Although the results of their study showed that IPV was associated with psychological distress, 27 percent of the respondents in violent relationships rated their relationships as “excellent” and of these “excellent” couples, slightly over 16 percent reported mutual and severe violence (Williams & Frieze, 2005). Counterintuitive though these findings are, a qualitative study has suggested that some couples might believe IPV can enhance communication, increase emotional

intimacy, and even revive romantic excitement by providing a "renewed honeymoon" in the wake of an IPV event (Borochowitz & Eisikovits, 2002).

In view of the research that has been reported above, imparting skills that contribute to happier relationships is likely a worthwhile goal. Nevertheless, it remains unclear whether relationship distress plays a causal role in IPV, with some studies viewing poor relationship functioning as an outcome rather than an antecedent of partner abuse (e.g., Yoon & Lawrence, 2013). Clearly, partner violence does not preclude some couples from thinking positively about their relationships, even when severe physical violence is involved (Williams & Frieze, 2005). Furthermore, a review study of domestic violence research concluded that relationship distress is a risk factor for intimate partner violence but in large part because it often (though not necessarily) accompanies verbal aggression and relationship discord and that both of these factors may be more directly related to physical partner aggression (Capaldi et al., 2012).

The Present Study

The present study investigated correlates of intimate partner violence among a group of New Zealand men undertaking community-based non-violence programmes. Based on the existing literature, several individual (e.g., anger arousal, jealous thoughts, alcohol abuse) and relationship level risk factors (e.g., relationship satisfaction and discord) for partner aggression were included. Although risk factors for IPV have been studied extensively overseas, so far very little research has been conducted on New Zealand perpetrators. Much of the international research has focussed on physical rather than non-physical IPV or it has adopted a narrow conceptualisation of the latter (and defined it, mostly, as verbal abuse; Foran et al., 2014). The present study, by contrast, assessed physical partner violence and an assortment of coercive and controlling non-physical relationship behaviours. In addition, we examined our risk factors in relation to men's physical and non-physical IPV victimisation, which is itself a strong predictor of IPV perpetration, according to past research (Stith et al., 2004). We expected that most risk factors would be significantly related to physical and non-physical IPV perpetration and victimisation and that probably several risk factors would make unique contributions to the prediction of IPV after controlling for the influence of other

risk factors. But we had no clear predictions as to which risk factors these might be. With these expectations in mind, the present study had the following key objectives:

1) To examine bivariate associations among and between demographic variables, IPV risk factors, and rates of physical and non-physical IPV perpetration and victimisation.

2) To compare risk factors scores and rates of IPV perpetration and victimisation by ethnicity, current employment, initial programme referral contact, the presence of a protection order/non-association order,[9] total criminal convictions, and past imprisonment.

3) To use principal components analysis to reduce risk factors to a smaller number of broad risk factor components prior to conducting further multivariate analyses.

4) To use risk factor components to predict IPV perpetration and victimisation in a series of multivariate regression models.

Many of the risk factors we examined may be causes or consequences of intimate partner violence—or both. And given the correlational nature of this study, we were not able to address the question of directionality. A general limitation of survey-based correlational research on IPV is its inability to illuminate the ways in which risk factors at different levels might interact with and contribute to the perpetration of partner violence. Indeed, neglected areas abound as few studies have attempted to examine the proximal antecedents of partner abuse or what occurs during an IPV event (O'Leary & Smith Slep, 2006; Babcock et al., 2004a). Therefore, to examine whether and how risk factors contribute to an IPV event, we also set out to thematically analyse short narrative descriptions of partner abuse provided by the participants themselves.

[9] Issued by the New Zealand Family Court, a protection order legally prohibits or restricts the person against whom it is made from contacting the person (or persons) specified in the order, and this is usually the victim of the former person's physical, psychological, or sexual abuse (New Zealand Police, n.d.). Non-association with a person can be specified in a protection order, but it can also be stipulated in a criminal court order or in a written direction prepared by a probation officer.

Chapter 3: Method

Recruitment

Several non-government organisations (NGOs) providing non-violence programmes in the Waikato and Bay of Plenty regions of New Zealand were contacted. Three NGOs agreed to be involved in the present study, although ultimately only two providers contributed participants. A typical participant recruitment would involve the following: at the beginning of a programme session, NGO programme facilitators would discuss the research project with a group of programme attendees and then introduce the primary researcher, who after discussing the aims of the project further with the group, would pass around a research sign-up sheet. The primary researcher would then contact an interested self-nominated participant by phone to assess whether he (i.e., the participant) met criteria for the project. The present study effectively employed a convenience (and snowballing) sampling methodology whereby all suitable men undertaking a non-violence programmes at the two NGOs during the data collection phase for this project (i.e., June – November 2018) were invited to participate in this study. Before participating, each man provided written informed consent based on the study information outlined in a participant information sheet.

Participants

Participants were 43 men undertaking a community-based non-violence programme due to a family violence (FV) incident involving a romantic partner. Of the total 48 men interviewed, five of them (10.4%) were excluded from the study due to a lack of eligibility or a failure to provide useable data. Participants themselves decided whether the FV event had involved a "romantic partner" (as opposed to a friend or family member), but the relationship with the significant other person needed to have been at least five months in length at the time of the FV event. Furthermore, the participant needed to have been in that relationship (though not necessarily residing with his partner) for at least four of the six months immediately preceding the FV event to be eligible. Participant demographic information, which was collected at the beginning of each interview, are presented in Table 1. As Table 1 shows, participants had an average age of 36.8 (SD = 10.3)

Table 1

Participant demographic information and characteristics (N = 43)

	Characteristic	Percentage of *N*
Age		
Mean	36.8	
Standard Deviation	10.3	
Youngest	22	
Oldest	60	
Ethnicity[10]		
Māori	21	48.8
European	18	41.9
Pacific Islander	2	4.7
Other	2	4.7
Highest education level		
NCEA level 1, 2, 3, or equivalent	25	58.1
Trade or tech qualification	12	27.9
University diploma	1	2.3
Bachelor's degree	5	11.6
Employment status		
Unemployed without a benefit	1	2.3
Unemployed with a benefit	13	30.2
Employed part-time	3	7
Employed full-time (or full-time student)	26	60.5
Personal income (last 12 months)		
Below $15,000	17	39.5
$15,000 to $29,000	3	7
$30,000 to $44,000	2	4.7
$45,000 to $59,000	9	20.9
$60,000 to $74,000	5	11.6
$75,000 to $89,000	2	4.7
$90,000 to $104,000	1	2.3
$105,000 and over	4	9.3
Currently in romantic relationship		
Yes	20	46.5
No	23	53.5

[10] Participants who identified as more than one ethnicity in the interview were assigned to the ethnic group that they stated first. For example, a participant who identified as "NZ European" and "Māori" was recorded as "NZ European."

Living with partner at time of key FV event		
Yes	35	81.4
No	8	18.6
In relationship at time of key FV event		
Yes	38	88.4
No	5	11.6
Relationship length at time of key FV event (in months)		
Mean	88.8	
Standard deviation	91.6	
Shortest duration	5	
Longest duration	337	
Initial referral contact		
Criminal /probation referral	17	39.5
Family court referral	7	16.3
Self-referral	19	44.2
Protection/non-association order in place		
Yes	29	67.4
No	9	20.9
Don't know	5	11.6
Total criminal convictions		
No criminal convictions	8	18.6
Fewer than 5	16	37.2
5 to 11	3	7
12 to 20	8	18.6
More than 20	8	18.6
Ever been to prison (for remand and/or a criminal sentence)		
Yes	21	48.8
No	22	51.2

and most participants (58.1%) had no more than a high school-level education. With respect to ethnicity, 48.8% identified as New Zealand Māori, 41.9% as NZ European, 4.7% as Pacific Islander, and 4.7% as another ethnicity. The majority of participants (55.8%) had at least five criminal convictions in total and most (67.4%) were subject to a current protection and/or non-association order. With regards to

the initial NGO referral contact, 44.2% reported being a self-referral, 39.5% a criminal court/probation referral, and 16.3% a family court referral.[11]

Procedure

One-on-one interviews were conducted with participants at the offices of the NGOs from which they had been recruited. These were structured interviews that assessed participants' risk factors and rates of physical and non-physical partner violence perpetration and victimisation. Most interview items focussed on the six months prior to the FV event that had resulted in the participant's agency referral, with the approximate date of that event serving as the end of the recall period. In addition, some open-ended questions asked the participant to describe that FV event, and another FV event involving a partner close in time to the first event if one could be identified. When a participant had not been in a relationship with his partner at least four of the six months immediately preceding the event, and his break-up was due to another FV event involving his partner, the interviewer assessed the six months that led up to and included the break-up FV event. The FV event used to anchor the six month recall period was referred to as the "key event."

At the beginning of each interview, participants were provided with a calendar that had the relevant six-month period marked in pen. Before administering risk factor measures, the interviewer asked the participant some general questions about the six months that had led up to and included his FV event to aid his memory for that period (e.g., Where were you working over that time? Where were you living? What stands out for you when you think about that time?). Most interview items required participants to choose from among several Likert-style response options. The interviewer provided the participant with an A4-sized copy of the relevant scale or response options and then read aloud the item and ask the participant to choose the most applicable option.

The interview schedule was initially piloted with three participants, who were given a slightly different information sheet and consent form, and both forms made it clear that the interview was a pilot. In every other respect, these interviews were virtually identical to the post-pilot interviews, and the pilot data were included in the main study. Each interview, including pilot interviews, took approximately

[11] However, sentence conditions to attend a non-violence programme were often imposed on the participant after his initial self-referral.

one and a half to two hours to complete, and the interviewer recorded the participant's responses with pen and paper. To acknowledge the participant's time and willingness to share personal information and to repay transport costs, each participant was offered a voucher at the end of his interview. If a participant decided to do only part of the interview, he was still given a voucher for his involvement in the study.

Overview of Measures

The structured interview included several brief scales and measures assessing established correlates of physical and non-physical IPV. In terms of individual level risk factors, we examined anger arousal, jealous cognitions, mental wellbeing, alcohol and other drug abuse, and financial and other stress. Variables reflecting relationship functioning–namely, relationship satisfaction and discord-were also included. The six-month period assessed was kept consistent across all measures. For example, to introduce a new set of items the interviewer would usually ask, *"In the six months that led up to and included the family violence event involving your partner, how often…"* and then read aloud the scale items. Most of the measures were based on existing scales developed and used in the family violence research literature. The wording of a number of these scales was modified to enable them to be consistently applied to the six months leading up to a key event. In addition, we included several open-ended questions asking participants to describe in detail the FV event that led to their programme referral and another FV event if one could be identified by them. The full interview protocol (see Appendix: Interview Protocol) included each of the modified scales in the order in which they appear below. After briefly describing these quantitative measures, we will conclude this chapter with a brief description of the FV event questions.

Financial and Other Stress

Financial and other stress was assessed using a modified version of the Health-related Social Needs Screening Tool (HRSN; Billioux, Verlander, Anthony, & Alley, 2017). The HRSN in its unmodified form consists of ten face-valid items that assess unmet social needs across five core domains: housing instability (e.g., "What is your housing situation today?"), food insecurity (e.g., "Within the past 12 months, you were worried that your food would run out before you got money to

buy more."), transportation needs (e.g., "In the past 12 months, has a lack of transport kept you from medical appointments, meetings, work, or from getting things needed for daily living?"), utility needs (e.g., "In the past 12 months, has the electric, gas, oil, or water company threatened to shut off services in your home?"), and interpersonal safety (e.g., "How often does anyone, including family, physically hurt you?"). It incorporates various response formats, including frequency indication, a checklist, statement agreement, and Yes/No questions. The four interpersonal safety (IS) items are each scored 1 = *never*, 2 = *rarely*, 3 = *sometimes*, 4 = *fairly often*, or 5 = *frequently* and responses to these items are summed. A higher IS total score indicates that the respondent has had greater exposure to verbal and physical threats and abuse.

In the present study, the response formats of all HRSN items were retained. However, every item had a score assigned to each of its response options (usually 0, 2, and 4) to reflect the frequency or level of the unmet social need indicated by the option. For example, "*Within the past 12 months, the food you bought didn't last and you didn't have money to buy more*" was scored as 0 = *never true*, 2 = *sometimes true*, or 4 = *often true*. For the checklist of housing instability issues such as mould, inadequate heat, and bug infestation, a score of 1 was assigned to each issue the participant identified. The scoring of the IS items was left unaltered. In addition, all HRSN items were rephrased as questions and reworded to refer to the six month immediately before and including the key FV event (e.g., "Over that six months, how often did anyone, including family, physically hurt you?"). For IS items, participants were instructed not to report threats or acts of violence used by romantic partners as these were assessed by other measures. Finally, one new item was included (i.e., Over that period, did anyone come to repossess anything?") with the following response options: 0 = *no*, 2 = *no, but they threatened to*, and 4 = *yes*. Item responses were summed to give a total financial and other stress score for each participant, with scores ranging from 5 to 51. Cronbach's alphas for all measures in the current sample, including the HRSN, are reported in the results section.

Mental Wellbeing

Mental wellbeing was assessed with modified versions of two scales: (i) the short form of the Depression Anxiety Stress Scales (Lovibond & Lovibond, 1995)–the Depression Anxiety Stress Scales 21 (DASS-21)–and, (ii) the Flourishing Scale

(Diener et al., 2010). The DASS-21 consists of three seven-item self-report scales that ask participants to rate the frequency with which they have experienced a range of symptoms related to depressed mood (e.g., "I couldn't seem to experience any positive feelings at all"), anxiety ("I experienced trembling"), and stress ("I tended to overreact to situations") over the previous week. Responses are scored on a four-point scale, with 0 = *did not apply to me at all*; 1 = *applied to me to some degree or some of the time*; 2 = *applied to me to a considerable degree or a good part of the time*; and 3 = *applied to me very much or most of the time*. Items comprising these scales are summed and doubled to be equivalent to the longer DASS-42 version.

In the current study, the wording of two DASS-21 items was simplified (items 4 and 19); as was the wording of the response scale, which became: 0 = *never*; 1 = *sometimes*; 2 = *often*; and 4 = *most of the time.* As well, the time-frame of the recall period was changed from one week to six months, moved to before the key event, and all items were rephrased as questions. Scale items were summed (but not doubled) to create total depression, anxiety, and stress scores for each participant. Total scores were also summed to create a total DASS-21 score. Previous research suggests that the unmodified DASS-21 is a psychometrically sound measure of the dimensions of depression, anxiety, and stress, as well as the more general dimension of psychological distress (Henry & Crawford, 2005).

To assess additional dimensions of mental wellbeing such as purpose and meaning and supportive relationships, the eight-item Flourishing Scale (FS; Diener et al., 2010) was used. The FS items ask respondents to rate the extent to which they agree with statements indicative of personal wellbeing (e.g., "I lead a purposeful and meaningful life," "I actively contribute to the happiness and well-being of others") on a seven-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Item scores are then summed to give a total score ranging from 8 to 56, with higher scores indicating a more positive view of oneself in terms of diverse areas of human functioning. In the current study, FS item pronouns were changed from first-person to second-person, and item tense was changed from present to past, so that all items referred to the six months immediately before and including the participant's key FV event (e.g., "Over that six months, you were engaged and interested in your daily activities"). The scoring of the FS was left unchanged. Previous research with non-clinical samples indicates that the unmodified FS is a psychometrically sound measure of overall self-reported psychological well-being (Diener et al., 2010).

Anger Arousal

Physiological arousal related to anger was measured with a modified version of the seven-item anger subscale of the Buss-Perry Aggression Questionnaire (BPAQ; Buss & Perry, 1992). The anger subscale of this instrument asks respondents to rate the personal applicability of statements indicative of anger arousal (e.g., "I sometimes feel like a powder keg ready to explode," "I have trouble controlling my temper"), and it uses a 5-point Likert scale where 1 = *extremely uncharacteristic of me* and 5 = *extremely characteristic of me*, with one reverse scored item (i.e., Item 4). Item ratings are then summed to give a total score ranging from 7 to 35, with higher scores indicating greater levels of anger-related physiological arousal.

In the present study, all items of the anger subscale were rephrased so that they referred to the six months immediately preceding the key FV event. This required using second instead of first-person pronouns and the altering of item tense from present to past (e.g., "Over that six months, you sometimes felt like a powder keg ready to explode"). After piloting, scale extremes were simplified to 1 = *that was not me at all* and 5 = *that was completely me.* In all other respects, the scoring of the anger measure remained the same. Prior research suggests that the unmodified Buss-Perry Aggression Questionnaire is a psychometrically sounds measure of 4 subtraits of aggression, including anger and hostility, and predictive of physical health outcomes, including alcohol use and coronary disease (Fernandez, Boyle, & Day, 2015).

Relationship Satisfaction and Discord

Relationship satisfaction was assessed using a modified version of the Relationship Assessment Scale (RAS; Hendrick, 1988). The RAS consists of seven questions that assess global relationship satisfaction (e.g., "How well does your partner meet your needs?" "How much do you love your partner?") on a five-point Likert scale of 1 = *low satisfaction* to 5 = *high satisfaction*, with two reverse scored items (Items 4 and 7). Item responses are summed to create a total score for each participant ranging from 7 to 35, with higher scores suggesting greater subjective relationship satisfaction on the part of the respondent.

In the present study, the tense of RAS items was changed from the present to the past so that they referred to the six months before and including the key FV event (e.g., "Over that six months, how well did your partner meet your needs?").

In all other respects, the scoring of the RAS remained the same. Again, prior research indicates that the unmodified RAS is a psychometrically sound measure of global relationship satisfaction, including that its scores correlate highly with the Dyadic Adjustment Scale (Spanier, 1976; Hendrick, 1988: r = .80), one of the most widely-used measures of relationship quality in the psychological literature.

Relationship discord was assessed using two items drawn from the Dyadic Adjustment Scale (DAS; Spanier, 1976). These DAS items ("How often do you and your partner quarrel?" and "How often do you and your mate get on each other's nerves?") are rated on a six-point frequency scale—0 = *All of the time*; 1 = *Most of the time*; 2 = *More often than not*; 3 = *Occasionally*; 4 = *Rarely*; 5 = *Never*—and their ratings are usually summed with the ratings of all other DASS items to create a total relationship adjustment score ranging from 0 to 151.

In the present study, the scale options were reversed so that 0 = *Never* and 5 = *All the time*, which, based on pilot interview feedback, made more sense to participants (i.e., higher scores reflecting more frequent arguing and greater levels of relationship friction). As with many of the above measures, DAS item wording was changed from present to past tense to clearly refer to the six-month period before and including the key FV event. Responses were summed to create a total relationship discord score for each participant, with total scores ranging from 0 to 10, and higher scores indicating greater levels of relationship discord.

Jealousy-related Cognitions

Jealous thoughts were assessed using a modified version of the eight-item cognitive subscale of the Multidimensional Jealousy Scale (MJS; Pfeiffer & Wong, 1989). On a seven-point Likert scale of 1 = *never* to 7 = *all the time*, a respondent can rate how often they have had a range of suspicions about his or her partner and a rival (e.g., "I suspect that X is secretly seeing someone of the opposite sex," "I am worried that someone of the opposite sex is trying to seduce X," "I suspect that X is crazy about members of the opposite sex"). Items responses are summed to create a total cognitive jealousy score; with scores ranging from 8 to 56 and higher scores suggesting more pathological jealousy on the part of the respondent (Pfeiffer & Wong, 1989).

In the present study, the wording of two MJS items was simplified (Items 4 and 5), and all items were rephrased as questions to be asked by the interviewer.

All items were changed from present to past tense to now refer to the six months that led up to and included the key FV event (e.g., “How often over that six months, did you suspect that your partner was seeing another man?”). The scoring of the original MJS was retained. Research suggests that the unmodified MJS in both long and short-form is a psychometrically sound measure of various dimensions of jealousy, including cognitive, behavioural and affective jealousy (Pfeiffer & Wong, 1989; Elphinston, Freeney, & Noller, 2011).

Physical Partner Violence

Physical partner violence was assessed using the 12-item *Physical Assault Scale* of the CTS2 (Straus, Hamby, Boney-McCoy, & Sugarman, 1996), which asks respondents to rate how frequently they have committed specific acts of physical violence against a partner in the preceding 12 months (e.g., “I pushed or shoved my partner,” “I slammed my partner against a wall”). The scale also asks respondents to report how often their partners have used the same acts over the same period. All responses are scored on a six-point scale with the following options: *once*, *twice*, *3-5 times*, *6-10 times*, *11-20 times*, *more than 20 times.* For analysis purposes, the scale is recoded as 1, 2, 4, 8, 15, and 25 and this reflects the estimated frequency of each behaviour (Straus et al., 1996). Scores are then summed to create a total physical assault perpetration score and a total physical assault victimisation score for each participant. In addition, minor physical aggression and severe aggression subscale scores for perpetration and victimisation can be calculated by summing the items comprising each subscale.

In the present study, the time-frame of the recall period was changed from 12 months to 6 months, moved to before the key family violence event, and all items were rephrased as questions to be asked by the interviewer (e.g., “Over that six months, how often did you slam your partner against a wall?”). The response options and scoring of the original CTS2 were retained. Prior research indicates that the Revised Conflict Tactics Scale (CTS2), which is probably the most widely used measure of partner violence in the psychological literature, has sound psychometric properties (Straus et al., 1996).

Controlling Behaviours

Coercive and controlling behaviours were assessed with a modified version of the Revised Controlling Behaviors Scale (CBSR; Graham & Kevan-Archer, 2005). The 24-item CBSR uses behavioural items (e.g., "Use nasty looks and gestures to make the other one feel bad or silly," "Call the other unpleasant names," "Act suspicious and jealous of the other one") but does not include items that assess physical partner aggression. It consists of five subscales: *Economic Abuse* (four items), *Coercion and Threats* (four items), *Intimidation* (five items), *Emotional Control* (five items), and *Isolation* (six items). On the CBSR, respondents report how often they have used each non-physical act towards a partner in the last 12 months and how often their partners have used the same controlling behaviours over the same period. Responses are scored on a four-point frequency scale, with 0 = *never*, 1 = *rarely*, 2 = *sometimes*, 3 = *often*, and 4 = *always*, and the scores are summed to create a total perpetration score and a total victimisation score for each participant.

In the present study, the time-frame of the recall period was again changed from 12 months to six months, moved to before the key event, and all items were rephrased as questions ("Over that six months, how often did you use nasty looks and gestures to make your partner feel bad or silly?"). The scoring of the CBSR was not altered.

Alcohol and Other Drug Abuse

Alcohol abuse was assessed using a modified version of the Alcohol Use Disorders Identification Test (AUDIT; Saunders, Aasland, Babor, DeLaFuente, & Grant, 1993). Originally developed by the World Health Organisation as a tool for the detection of problem drinkers in primary care settings, the AUDIT consists of ten items that refer to the previous 12 months. Three of these questions refer to the quantity or frequency of drinking (e.g., "How often do you have a drink containing alcohol?"), three on alcohol dependence ("How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?"), and there are four questions on problems caused by drinking ("How often during the last year have you failed to do what was normally expected from you because of drinking?"). Except for the last two items on the AUDIT, each item is scored from 0 to 4, with a higher item score indicating that the alcohol-related problem or behaviour occurs with greater frequency. The last two items are scored

0, 2, or 4, depending on whether the alcohol-related problem occurred in the last 12 months (i.e., a higher score) as opposed to ever in the respondent's life. A total score ranging from 0 to 40 is calculated by summing the ten items, with higher total scores indicating more problematic patterns of alcohol use in the previous 12 months.

In the present study, the recall period was changed from 12 months to six months and moved to before the key FV event. Item tense was changed from present to past (e.g., "Over that six months, how often did you have a drink containing alcohol?"). The scoring of the original AUDIT was retained, and an AUDIT total score was calculated for each participant.

Other drug use was assessed using a modified version of the Drug Abuse Screening Test (DAST; Skinner, 1982), which is a 28-item measure. Defining substance use as the use of illicit drugs and the use of prescription drugs in excess of the directions, DAST items ask respondents about their use of drugs other than alcohol and about their experience of drug-related problems in the previous 12 months (e.g., "Have you abused prescription drugs?" "Have you ever lost a job because of drug use?" "Have you engaged in illegal activities to obtain drugs?"). Responses take a Yes/No format, with affirmative responses receiving a score 1 (except for items 4, 5, and 7, which are reverse scored (i.e., 'No' = 1)). Responses are then summed to give a total score ranging from 0 to 28, with a higher DAST score indicating more problematic patterns of substance abuse.

The recall period of the DAST was changed in the present study from 12 months to six months, moved to before the key FV event, and item tense was changed from present to past (e.g., "Over that six months, how often did you abuse prescription drugs?"). In all other respects, the scoring of the DAST was left the same. Previous psychometric research supports the use of the unmodified DAST with a range of populations, including psychiatric patients, adolescents, and female offenders (Yudko, Lozhkina, & Fouts, 2007).

Family Violence Event Descriptions

Besides psychometrically assessing potential dynamic risk factors for partner abuse, attempts were made to explore qualitatively whether and how risk factors were

present during an IPV event.[12] To this end, each participant was asked to describe the FV event involving a partner that led to his programme referral—and an additional event close in time to the key event where such an event could be identified. The purpose of collecting information on two events was to judge how typical the key event was; referral to an NGO for family violence is often thought to follow an atypically extreme event in the history of the relationship. In the interview, participants were usually asked the following: What got the FV event started? How did it start? Who started it? Did your partner use physical violence during the event? If she did, why? Were there any injuries? Out of you and your partner, who was the most violent? Who was the most frightened? The interviewer attempted to summarise the event on paper, including how it unfolded and any relevant events that had preceded it. The hand-recorded IPV descriptive accounts were later recorded into a computer word document. In some cases, the interviewer recorded the participant's exact statements as quotations when they appeared to capture something especially important about the IPV event.

Following the collection of these event descriptions, a thematic analysis was conducted. Thematic analysis—which has been described as 'an accessible and theoretically flexible approach to analysing qualitative data' (Braun & Clarke, 2006, p. 77)–was used to identify salient precursors to IPV in participants' descriptive accounts. Given its focus, the present study might be regarded as having adopted a theoretically driven and realist (i.e., essentialist) approach to its qualitative analysis. The analysis *did* proceed on the assumption that participant accounts offered insight into an intrinsic and observable aspect of IPV; namely, the presence (or absence) of potential dynamic risk factors. To be clear: the intention was not to apply a social constructionist approach (e.g., Gergen, 1999), which might, for example, have examined how partner violent men view the perpetration of domestic abuse or attempt to justify their actions. Nor was this study concerned with how such meanings are impacted on by wider societal discourses and structures, however interesting and valid such research would likely be. Here, the thematic analysis was supplementary to the central concern of the present study and we hoped it would give additional insight into whether and how risk factors identified in the existing relevant literature contribute to the perpetration of intimate partner violence.

[12] Although these scales were generally psychometrically well-developed prior to modification, we recognise the modifications to wording mean that these psychometric properties might not apply to the versions used here.

Chapter 4: Results

Overview

The present study examined risk factors for physical partner violence and controlling relationship behaviours among a sample of New Zealand men undertaking a community-based non-violence programme. The data were obtained through an assortment of items from psychometric measures delivered through a structured interview. In addition, and as outlined in the previous chapter, we collected qualitative descriptions of participants' key family violence events. In this chapter, we outline the analytic strategy with regards to the quantitative data and report the results that we found. The analysis was conducted in four stages, and the results are reported below in the order in which that occurred. Firstly, bivariate associations were explored among all risk factor scales, demographic variables, and measures of IPV. Second, we conducted a series of between group analyses, using ethnicity, initial referral contact, the presence of a protection order, total criminal convictions, and prior imprisonment as the grouping variables. Third, given the large number of scales relative to the sample size, a principal components analysis was conducted on each measure's total score (but not each item) to reduce the data to a more manageable set of components. Thirdly, a series of multivariate regression analyses was conducted with these risk factor components as independent variables and the measures of partner violence as dependent variables. The qualitative data, which examined the presence and prominence of risk factors during an IPV event, are reported in the following chapter.

Risk Factor Descriptive Statistics and Correlations with IPV Measures

Descriptive statistics, internal reliability statistics, and correlation coefficients for risk factor scales and IPV measures are presented in Table 2. All scales showed high levels of internal consistency, including the Heath-Related Social Needs Screening Tool, which, as far as we are aware, has not been subjected to any extensive psychometric or empirical validation.[13] An examination of skewness suggested that several variables deviated substantially from a normal distribution,

[13] Because all scales were modified, scale scores could not be compared to other clinical samples.

Table 2

Means, Standard Deviations, Cronbach's Alphas, and Spearman's Correlation Coefficients for Risk Factor and IPV Measures

	N	*M*	*SD*	α	HRSN	DASS	FS	BPAQ	RAS	DAS	MJS	AUDIT	DAST	CTS2P	CTS2V	CBSRP	CBSRV
HRSN	43	14	9.35	.85	1	.61**	-.29*	.47*	-.12	.33*	.26*	.31*	.43*	.30*	.44*	.42*	.35*
DASS	43	31.3	14.5	.95	-	1	-.50**	.56**	-.38*	.53**	.27*	.08	.36*	.08	.20	.39*	.40*
FS	43	39.3	10.5	.87	-	-	1	-.36*	.65**	-.45*	-.29*	-.03	-.29*	-.05	-.25	-.24	-.33*
BPAQ	43	23.5	6.27	.80	-	-	-	1	-.17	.32*	.20	.36*	.38*	.16	.11	.50**	.27*
RAS	43	20.5	6.27	.85	-	-	-	-	1	-.80**	-.38*	-.004	-.35*	-.23	-.43*	-.43*	-.59**
DAS	42	5.86	2.31	.89	-	-	-	-	-	1	.46*	.05	.43*	.22	.52**	.59**	.63**
MJS	42	25.3	15.4	.96	-	-	-	-	-	-	1	.26*	.57**	.25	.50**	.57**	.63**
AUDIT	42	12.4	10.3	.90	-	-	-	-	-	-	-	1	.52**	.44*	.33*	.41*	.24
DAST	42	6.31	7.61	.96	-	-	-	-	-	-	-	-	1	.55**	.54**	.62**	.48*
CTS2P	42	13.3	20.9	.88	-	-	-	-	-	-	-	-	-	1	.64**	.56**	.51**
CTS2V	42	26.1	36.2	.86	-	-	-	-	-	-	-	-	-	-	1	.58**	.66**
CBSRP	42	26.5	15.8	.91	-	-	-	-	-	-	-	-	-	-	-	1	.63**
CBSRV	42	36.2	21	.94	-	-	-	-	-	-	-	-	-	-	-	-	1

HRSN = Health-related Social Needs Screening Tool; *DASS* = Depression Anxiety Stress Scales; *FS* = Flourishing Scale; *BPAQ* = Buss-Perry Aggression Questionnaire; *RAS* = Relationship Assessment Scale; *DAS* = Dyadic Adjustment Scale; *MJS* = Multidimensional Jealousy Scale; *AUDIT* = Alcohol Use Disorder Identification Test; *DAST* = Drug Abuse Screening Test; *CTS2P* = Revised Conflict Tactics Scale (perpetration); *CTS2V* = Revised Conflict Tactics Scale (victimisation); *CBSRP* = Revised Controlling Behaviors Scale (perpetration); *CBSRV* = Revised Controlling Behaviours Scale (victimisation).

*Correlation is significant at the .05 level (one-tailed), ** Correlation is significant at the .001 level (one-tailed).

including the CTS2P (skewness = 2.92, *SE* = .37) and CTS2V scales (skewness = 1.76, *SE* = .37).[14] Therefore, we calculated Spearman's rank-ordered correlation coefficients for all variables. And because we expected physical and non-physical IPV to be positively related to risk factor scores (and negatively related to the measures of relationship satisfaction and individual flourishing), one-tailed significance tests were used.

Participants reported perpetrating an average of 13.3 acts of physical violence towards a partner in the six months before and including a key FV event. They also reported being the victim of an average of 21.6 acts of physical violence by a partner over the same period. Approximately 83% of participants reported perpetrating some type of physical IPV toward a partner over the surveyed period. As Table 2 shows, only financial and other stress, alcohol abuse, and drug abuse were significantly related to CTS2P (physical IPV perpetration) scores, with coefficients of .30 (p = .03), .44 (p < .01), and .55 (p < .001), respectively. As predicted, CTS2P was significantly related to CTS2V (physical IPV victimisation; r_s = .64, p < .001). In addition, CTS2P and CBSRP (controlling behaviours perpetration) were moderately correlated with each other (r_s = .56, p < .001); as were CTS2V (physical IPV victimisation) and CBSRV (victimisation by controlling behaviours) scores (r_s = .66, p < .001). Furthermore, most risk factor scores were significantly related to CBSRP scores, with coefficients ranging from small (e.g., depression, anxiety, and stress: r_s = .39, p < .01) to moderate (e.g., drug abuse: r_s = .62, p < .001).[15] With the exception of alcohol abuse (r_s = .24, p = .06), all risk factor scores were significantly related to CBSRV scores.

We next examined whether participant demographic variables were significantly associated with the IPV measures.[16] The following were not significantly related to CTS2P scores: participant age (r_s = -.24, p = .06), ethnicity (recoded as either New Zealand European or NZ Māori; r = .10, *ns*), education level (r_s = -.24, p = .07), income (r_s = -.20, *ns*), relationship length at the time of the key FV event (r_s = -.20, *ns*), initial referral contact (recoded as either criminal court/family court or self-referral; r = -.01, *ns*), the presence of a protection/non-

[14] A substantial deviation from normality was defined as a skew more than twice its standard error (Hanna & Dempster, 2012) and/or kurtosis greater than 7.0 (West, Finch, & Curran, 1995).
[15] The sole exception was the Flourishing Scale.
[16] Point-biserial correlations were calculated for dichotomous variables–ethnicity, initial referral contact, presence/absence of a protection order, and past imprisonment–and IPV. To reduce skewness/kurtosis, CTS2 scores were log-transformed prior to conducting these analyses. Spearman's correlations were calculated for the remaining demographic variables.

association order (recoded as either no protection/non-association order or protection/non-association order currently in place; r = .13, *ns*), and total number of criminal convictions (r_s = .24, p = .06). However, current employment, (r_s = -.36, p = .01), number of arrests under 16 years old (r_s = .31, p = .03), and past imprisonment (r = .40, p = .01) did show small correlations with physical IPV perpetration. With respect to CTS2V (physical IPV victimisation), participant age (r_s = -.38, p = .01) and past imprisonment (r = .29, p = .03) showed significant correlations with physical IPV victimisation scores. But none of the remaining participant demographic variables were significantly related to CTS2V scores: ethnicity (r = .11, *ns*), employment (r_s = -.26, p = .05), income (r_s = -.25, p = .05), education level (r_s = .25, p = .05), relationship length at time of key FV event (r_s = -.16, *ns*) , initial referral contact (r = -.01, *ns*), presence of a protection order (r = .17, *ns*), number of arrests under 16 years old (r_s = .08, *ns*), and total criminal convictions r_s = .18, *ns*).

Finally, we examined bivariate associations among demographic variables and CBSRP (controlling behaviours perpetration) and CBSRV (victimisation by controlling behaviours) scores. None of the following were significantly related to CBSRP scores: participant ethnicity (r = .14, *ns*), education level (r_s = -.11, *ns*), current employment (r_s = -.23, p = .07), income (r_s = -.08, *ns*), relationship length at time of key FV event (r_s = .06, *ns*), initial referral contact (r = .01, *ns*), protection/non-association order (r = .15, *ns*), number of arrests under 16 years old (r_s = .17, *ns*), total criminal convictions (r_s = .18, *ns*), and past imprisonment (r = .23, p = .07). However, participant age did show a significant negative relationship with the perpetration of controlling behaviours (r_s = -.29, p = .03). With respect to CBSRV scores, except for past imprisonment (r = .30, p = .03), none of the following demographic variables were significantly related to victimisation scores: participant age (r_s = -.28, p = .08), ethnicity (r = .06, *ns*), education level (r_s = -.08, *ns*), employment (r_s = .04, *ns*), income (r_s = -.03, *ns*), relationship length at time of key FV event (r_s = -.003, *ns*), initial referral contact (r = -.22, p = .08), protection order (r = .26, p = .06), number of arrests under 16 years old (r_s = .07, *ns*), and total criminal convictions (r_s = .12, *ns*).

Between Group Analyses

After conducting preliminary descriptive and correlational analyses of the data set, we next compared the risk factor and IPV scores of New Zealand Māori (*N* = 21) and NZ European (*N* = 18) participants. The remaining ethnic groups in our sample—"Pacific Islander" (*N* = 2) and "Other" (*N* = 2)—each had too few participants for statistically meaningful comparisons to be made. Thus, they were excluded from this analysis. Table 3 displays the results of all independent samples *t* tests based on ethnicity for risk factor total scores and controlling behaviours scores. As Table 3 shows, in our *t* test analyses there were no significant differences between NZ Māori and NZ European participants on risk factor and CBSRP and CBSRV scores. However, because skewness indicators suggested that several variables were not symmetrically distributed,[17] we next conducted non-parametric between group tests on the skewed variables. A Mann-Whitney test indicated that

Table 3

Results of Independent Samples t Tests Comparing New Zealand Māori (N = 21) and New Zealand European (N = 18) Risk Factor and CBSR Scores*

	T	*Df*	Sig.	Mean difference	*SE diff.*	Lower CI	Upper CI	*d*	Lower CI	Upper CI
DASS	1.06	37	.30	4.74	4.49	-4.36	13.8	.35	-3.93	4.62
BPAQA	.28	37	.78	.56	1.99	-3.47	4.58	.09	-1.80	1.98
RAS	1.11	37	.27	2.24	2.01	-1.84	6.32	.37	-1.55	2.28
DAS	.31	36	.76	.23	.74	-1.28	1.74	.10	-.61	.81
MJS	-.85	36	.40	-4.23	5.00	-14.4	5.90	-.28	-5.04	4.48
AUDIT	-.65	36	.52	-2.12	3.27	-8.76	4.52	-.22	-3.33	2.90
CBSRP	.84	33.1	.41	.402	4.77	-5.67	13.7	.28	-4.36	4.91
CBSRV	.33	36	.74	2.33	7.01	-11.9	16.5	.11	-6.56	6.78

*The HRSN Screening Tool, Flourishing Scale, Drug Abuse Screening Test, CTS2P and CTS2V scales deviated substantially from normality and thus were excluded from the *t* test analyses.
DASS = Depression Anxiety Stress Scales; *BPAQ* = Buss-Perry Aggression Questionnaire; *RAS* = Relationship Assessment Scale; *DAS* = Dyadic Adjustment Scale; *MJS* = Multidimensional Jealousy Scale; *AUDIT* = Alcohol Use Disorder Identification Test; *CBSRP* = Revised Controlling Behaviors Scale (perpetration); *CBSRV* = Revised Controlling Behaviours Scale (victimisation).
CI = 95% Confidence Interval

[17] HRSN (skewness = 1.02, *SE* = .36), FS (skewness = -.81, *SE* = .36), CTS2P (skewness = 2.92, *SE* = .37), CTS2V (skewness = 1.76, *SE* = .37), and DAST (skewness = .88, *SE* = .37).

NZ Māori (*Mdn* = 16) had significantly higher HRSN (financial and other stress) scores than NZ European participants (*Mdn* = 7.5), *U* =100, *p* = .01, *r* = .40. NZ Māori participants (*Mdn* = 2.5) did not differ significantly from NZ European (*Mdn* = 5.5) participants in their DAST (drug abuse) scores, *U* = 170, *p* = .75, *r* = .05. Nor did we find a significant difference between NZ Māori (*Mdn* = 45) and NZ European participants (*Mdn* = 35.5) in Flourishing Scale scores, *U* = 132, *p* = .12, *r* = .26. Furthermore, we found no statistically significant difference in CTS2P (physical IPV perpetration) scores between NZ Māori (*Mdn* = 7) and NZ European participants (*Mdn* = 6), *U* = 165, *p* = .65, *r* = .07. Nor did we find a significant difference in CTS2V (physical IPV victimisation) scores between NZ Māori (*Mdn* =19.5) and NZ European participants (*Mdn* = 9.5), *U* = 153, *p* = .43, *r* = .13.

Additional parametric and non-parametric between group tests were carried out to examine whether significant differences existed when participants were compared by current employment,[18] initial referral contact, the presence of a protection/non-association order, total criminal convictions,[19] and imprisonment. The results of all between group parametric and non-parametric tests based on these grouping variables, including effect sizes, are presented in the Appendix. Significant results are reported here.

Unemployed participants (*M* = 37, *SD* = 9.81) had significantly higher DASS (depression, anxiety, stress) total scores than employed/studying full-time participants (*M* = 28.5, *SD* = 15.6), *t* (38) = 2.17, *p* = .04, *d* = .62. Levene's test indicated unequal variances (*F* = 6.92, *p* = .01), so degrees of freedom were adjusted from 41 to 38. Regarding the DASS subscales, unemployed participants (*M* = 9.71, *SD* = 4.41) had significantly higher anxiety scores than employed/studying full-time participants (*M* = 6.38, *SD* = 4.69), *t* (41) = 2.23, *p* = .03, *d* = .74. In addition, a Mann-Whitney test indicated that unemployed participants (*Mdn* = 18) had significant higher HRSN (financial and other stress) scores than employed/studying full-time participants (*Mdn* = 8), *U* = 87.0, *p* < .01, *r* = .46. Furthermore, employed/studying full-time participants (*Mdn* = 4) had significantly lower rates of physical IPV perpetration than unemployed participants (*Mdn* = 13), *U* = 117, *p* = .049, *r* = .30.[20] We also found that unemployed participants (*Mdn* = 12) had

[18] Recoded as either unemployed or employed/studying full-time. If a participant was studying part-time without also having part or full-time employment, he was recorded as unemployed.
[19] Recoded as either five or fewer criminal convictions or more than five criminal convictions.
[20] When CTS2 severity subscales were examined, unemployed participants (*Mdn* = 11) had significantly higher rates of minor physical IPV perpetration than employed/studying full-time

significantly higher DAST (drug abuse) scores than employed/studying full-time participants (*Mdn* = 0), *U* = 62.5, *p* < .001, *r* = .55.

Participants whose initial referral contact was a self-referral versus a criminal court/family court referral were not significantly different from each other in terms of risk factor and IPV scores. Except for HRSN (financial and other stress) scores (*Mdn* = 7.5 vs. *Mdn* = 16, *U* = 120, *p* < .01, *r* = .40), participants with five or fewer criminal convictions were not significantly different from participants with more than five criminal convictions on any of the measures. Furthermore, participants subject to a protection/non-association order were not significantly different from those not currently subject to a protection/non-association order in terms of risk factor and IPV scores. [21]

Lastly, we examined whether significant differences existed between participants who had ever been imprisoned (either on remand or as part of a criminal sentence) and those who had never been imprisoned. Participants with past imprisonment (*M* = 15.7, *SD* = 11) had significantly higher AUDIT (alcohol abuse) scores than never imprisoned participants (*M* = 9.32, *SD* = 8.81), *t* (40) = 2.10, *p* = .04, *d* = .66. With respect to physical IPV, participants with past imprisonment had significantly higher CTS2P scores (*Mdn* = 9.5) than never imprisoned participants (*Mdn* = 3.5), *U* = 117, *p* < .01, *r* = .40). And the former group (*Mdn* = 24.5) also had significantly higher CTS2V scores than the latter group (*Mdn* = 6), *U* = 138, *p* = .04, *r* = .32. [22]

Principal Components Analysis

Next, we wanted to conduct multivariate analyses of the relationships between risk factor scores and physical IPV and controlling behaviours scores. Before doing these analyses, we conducted a principal component analysis (PCA) on the total scores for each risk factor measure. This was done to reduce the number of variables to a more manageable set of components prior to using these in the planned

participants (*Mdn* = 3), *U* = 112, *p* = .04, *r* = .32. No other significant differences in CTS2 severity subscale scores were found based on any of the grouping variables.

[21] Interestingly, though, when CBSR subscales were examined, participants subject to a current protection/non-association order (*M* = 5.5, *SD* = 4.43) had significantly higher CBSR economic control victimisation scores than participants not currently subject to a protection/non-association order (*M* = 2.22, *SD* = 2.17), *t* (28.6) = 2.97, *p* < .01, *d* = .84.

[22] When CBSR subscales were examined, participants without past imprisonment (*M* = 7.05, *SD* = 5.35) had significantly lower CBSR emotional control victimisation scores than participants with past imprisonment (*M* = 10.9, *SD* = 5.23), *t* (40) = 2.33, *p* = .03, *d* = .74.

regressions. Given our focus on dynamic risk factors, demographic variables were not included in the PCA but were incorporated later in some multiple regression analyses as independent predictors. Both the physical IPV measure and the controlling behaviours measure served as dependent variables and were not included in the PCA. Although past studies have treated some types of verbal and psychological aggression as risk factors for physical IPV perpetration (e.g., Stith et al., 2004; O'Keefe, 1997), prior research suggests that physical and non-physical IPV often co-occur during an IPV event, embedded in a reciprocal process as romantic partners escalate a conflict (O'Leary & Smith Slep, 2006; Capaldi et al., 2007). Therefore, to ensure we examined risk factors that were not clearly also a type of IPV, the measure of coercive and controlling relationship behaviours was assigned to the role of dependent variable, along with the physical IPV measure.

Prior to performing the PCA, the suitability of the data for factor analysis was assessed. The sample in the present study did not satisfy the desirable 10-1 ratio of participants to variables recommended by Nunnally (1978), but there is still debate regarding the minimum number of participants required for principal components analysis, with some authors suggesting that as few as five cases for each variable is sufficient (Tabachnick & Fidell, 2013). With respect to missing data, listwise deletion was used, with $N = 42$ completing all risk factor and IPV measures. The Kaiser-Meyer-Olkin measure of overall sampling adequacy, an index of the proportion of the variance among the variables that may be attributable to common underlying factors, was .69, exceeding the recommended minimum value of .6 (Kaiser, 1974). Bartlett's Test of Sphericity (Bartlett, 1954) examines whether the observed correlation matrix deviates from an identity matrix in which variables are uncorrelated with one another. The results of this test were significant, $\chi 2(36) = 169$, $p < .01$. Therefore, both of the above indices support the factorability of the correlation matrix in the present study.

The PCA we conducted revealed the presence of three components with eigenvalues exceeding 1, accounting for 43.2%, 18.6%, and 12% of the variance, respectively. Communalities ranged from .60 (Multidimensional Jealousy Scale) to .88 (Relationship Assessment Scale). Inspection of the correlation matrix (i.e., Table 2) revealed the presence of many coefficients of .3 and above. Because risk factors for IPV are likely to be correlated with one another, oblique (Direct Oblimin) rotation was then used. Table 4 displays the pattern matrix of the rotated three-component solution. Items were grouped into components based on loadings of .4

Table 4

Principal Components Analysis: Pattern Matrix

Scale	Component 1	Component 2	Component 3
DASS	**.82**	-.29	-.14
BPAQ	**.80**	.01	.10
HRSN	**.79**	.08	.18
RAS	.11	**.94**	-.13
DAS	.17	**-.77**	.15
FS	-.28	**.73**	.20
AUDIT	.21	.32	**.77**
DAST	.22	-.18	**.73**
MJS	-.11	**-.40**	**.65**

HRSN = Health-related Social Needs Screening Tool; *DASS* = Depression Anxiety Stress Scales; *FS* = Flourishing Scale; *BPAQ* = Buss-Perry Aggression Questionnaire; *RAS* = Relationship Assessment Scale; *DAS* = Dyadic Adjustment Scale; *MJS* = Multidimensional Jealousy Scale; *AUDIT* = Alcohol Use Disorder Identification Test; *DAST* = Drug Abuse Screening Test.
Numbers were bolded to help clarify scales' component groupings.
N = 42, cases excluded listwise.

or more, a commonly used cutoff value (Bandalos & Finney, 2010). As Table 4 shows, all risk factor scales had component loadings of .4 or higher on at least one factor, with the Multidimensional Jealousy Scale (MJS) loading onto two components.[23] The scree plot generated by the PCA had a relatively smooth curve, with only a faint elbow discernible after the third component, suggesting that the number of components to include is somewhat arbitrary.

The next procedure was labelling these three components based on the themes shared by their underlying risk factor measures: (1) stress/negative emotionality, (2) relationship/individual wellbeing, and (3) jealousy/substance abuse. Because the method of scoring items varied across measures (e.g., Likert scales, tick boxes, binary 'Yes/No' items), scale scores could not be summed to create component scores without first being standardized. Thus, *z* scores for the scales assigned to each component were summed to create a total score for each component. [24] Table 5 shows the inter-correlations among the components obtained

[23] Although, on the face of it more conceptually similar to scales loading on Component 2, the MJS had a substantially higher loading on Component 3 (.65) than Component 2 (-.40) and thus was assigned to Component 3.
[24] Except for DAS standard scores, which were subtracted from the sum of Flourishing Scale and Relationship Assessment Scale standard scores to create the Relationship and Individual Wellbeing component score.

Table 5

Component and Component Score Correlation Matrix

Variable	1	2	3[a]	1	2	3
Component 1: Stress and Negative Emotionality	-	-.26	.30	-	-.44**	.49**
Component 2: Relationship and Individual Wellbeing	-	-	-.13	-	-	-.32*
Cronbach's Alpha	.80	.84	.68	-	-	-

The left half of the table displays the inter-correlations among the components obtained from the principal components analysis and the right half displays the inter-correlations among the total scores of the components. For the latter, all correlations were significant at $p < .05$* or $p < .01$** (one-tailed).
[a] Component 3: Jealousy and Substance Abuse.

from the PCA as well as the inter-correlations among the component scores. In addition, Table 5 presents internal consistency estimates for each of the derived risk factor components. Table 6, below, shows correlations between risk factor component scores and the physical and non-physical IPV measures. As Table 6 makes clear, except for the association between relationship/individual wellbeing and CTS2P (r = -.17, p = .15), all risk factor component scores were significantly related to physical IPV and controlling behaviours scores, with correlations ranging from small (e.g., stress/negative emotionality and CTS2P: r = .27, p = .04) to moderate (e.g., jealousy/substance Abuse and CBSRP: r = .66, $p < .001$).

Table 6

Component Score and IPV Correlation Matrix

Variable	CTS2 perpetration[a]	CTS2 victimisation[a]	CBSR perpetration	CBSR victimisation
Stress and Negative Emotionality	.27*	.31*	.52**	.40*
Relationship and Individual Wellbeing	-.17	-.46*	-.44*	-.56**
Jealousy and Substance Abuse	.54**	.60**	.66**	.53**

CTS2: Revised Conflict Tactics Scale; *CBSR*: Revised Controlling Behaviors Scale.
[a] Log-transformed due to substantial deviation from normality.
*$p < .05$, **$p < .001$ (one-tailed).

Using Risk Factor Components to Predict IPV

Having established that the risk factor components were for the most part significantly related to CTS2 and CBSR, we next examined whether these components would predict the IPV perpetration and victimisation scores and whether certain components would explain unique variance in the IPV scores. Using sequential regression models, we also incorporated demographic variables that had correlated significantly with CTS2 and CBSR scores. Being static factors, demographic variables (e.g., age, past imprisonment) are likely only risk markers for the influence of present and past dynamic risk factors (see Beech & Ward, 2004). Hence, they (i.e., the demographic variables) were entered at Step 2 so that any additional and unique variance accounted for over and above the risk factor components could be clearly assessed. Prior to running these analyses, CTS2 scores were log-transformed to reduce skewness and kurtosis and preliminary analyses were also conducted to ensure that there were no violations of the assumptions of normality, linearity, multicollinearity, and homoscedasticity.

Table 7 presents the results from the final regression models. First, we conducted a sequential regression analysis to determine the ability of stress/negative emotionality (SNE), relationship/individual wellbeing (RIW), and jealousy/substance Abuse (JSA) to predict CTS2P scores. SNE, RIW, and JSA were entered at Step 1, together explaining 28.8% (adjusted $R^2 = .23$) of the variance in CTS2 (physical IPV perpetration) scores.[25] After the entry of past imprisonment and current employment at Step 2, the total variance explained by the model was 35.9% (adjusted $R^2 = .27$, F (5, 36) = 4.03, $p < .01$).[26] However, the contribution of the second block was not statistically significant, $R^2_{\text{change}} = .07$, F_{change} (2, 36) = 1.99, $p = .15$. Moreover, in the final model only the JSA component was a statistically significant unique predictor of CTS2P scores ($\beta = .47$, $p < .01$), with the squared semipartial correlation coefficients indicating that JSA uniquely explained 13.8% of the variance in physical IPV perpetration (and 21.3% of the variance in the first model). Past imprisonment, the next most influential predictor in the final model, was approaching significance ($\beta = .28$, $p = .06$).

[25] Given this study's relatively small sample size, the adjusted R^2 was likely a better estimate of the true population value.

[26] Past imprisonment and current employment were two of the three demographic variables significantly correlated with CTS2P. Arrests under 18, though log-transformed, still deviated substantially from normality and thus could not be included in the regression analyses.

Table 7

Regression Analyses of Intimate Partner Violence: *Final Models*

	β [a]	SE	*t*
CTS2 perpetration[b]			
Stress and Negative Emotionality	-.009	.04	-.05
Relationship and Individual Wellbeing	-.02	.03	-.13
Jealousy and Substance Abuse	.47	.04	2.78**
Current Employment	.01	.20	.08
Past Imprisonment	.28	.15	1.98
CTS2 victimisation[b]			
Stress and Negative Emotionality	-.06	.04	-.41
Relationship and Individual Wellbeing	-.26	.04	-1.92
Jealousy and Substance Abuse	.45	.04	3.30**
Participant Age	-.26	.008	-2.16*
Past Imprisonment	.21	.16	1.74
CBSR perpetration			
Stress and Negative Emotionality	.22	.85	1.58
Relationship and Individual Wellbeing	-.15	.79	-1.10
Jealousy and Substance Abuse	.48	.88	3.71**
Participant Age	-.16	.18	-1.30
CBSR victimisation			
Stress and Negative Emotionality	.006	1.18	.04
Relationship and Individual Wellbeing	-.45	1.06	-3.37**
Jealousy and Substance Abuse	.33	1.25	2.40*
Past Imprisonment	.20	5.12	1.65

CTS2: Revised Conflict Tactics Scale; *CBSR*: Revised Controlling Behaviors Scale
[a] Standardised beta coefficients.
[b] Log-transformed due to substantial deviation from normality.
*$p < .05$, **$p < .01$.

Secondly, a sequential regression analysis was carried out to examine whether the risk factor components would predict CTS2V (physical IPV victimisation) scores. SNE, RIW, and JSA were entered at Step 1, explaining 44.2% (adjusted $R^2 = .40$) of the variance in CTS2V scores. After the entry of participant age and past imprisonment at Step 2, the total variance explained by the model was 53.4% (adjusted $R^2 = .47$, F (5, 36) = 8.26, $p < .001$). Participant age and past imprisonment explained an additional 9% of the variance in CTS2 victimisation after controlling for risk factor components, $R^2_{\text{change}} = .09$, F_{change} (3, 36) = 3.56, $p = .04$. In the final model, only higher JSA scores and younger participant age were

statistically significant unique predictors of CTS2V scores, with the JSA component (β = .45, p < .01) recording a higher beta value than participant age (β = -.26, p = .04). The RIW component was approaching significance (β = -.26, p = .06). Furthermore, an examination of the squared semipartial correlation coefficients indicated that, in the final model, JSA and participant age uniquely explained 14.1% and 6% of the variance in CTS2V scores, respectively.

Third, a sequential regression analysis was conducted to explore the ability of the SNE, RIW, and JSA components to predict CBSRP (controlling behaviours perpetration) scores. SNE, RIW, and JSA were entered at Step 1, explaining 51.7% (adjusted R^2 = .48) of the variance in CBSRP. After the entry of participant age at Step 2, the model explained 53.8% (adjusted R^2 = .49) of the variance (F (4, 37) = 10.8, p < .001). However, the contribution of the second block (i.e., participant age) was not statistically significant, R^2_{change} = .02, F_{change} (1, 37) = 1.70, p = .20. In the final model, only (higher) JSA was a statistically significant unique predictor (β = .48, p < .01) of the perpetration of controlling behaviours, uniquely explaining 17.1% of the variance in CBSRP scores (and 19% of the variance in the first model).

Fourth, we carried out a sequential regression analysis to examine whether the risk factor components would predict CBSRV (victimisation by a partner's controlling behaviours) scores. SNE, RIW, and JSA were entered at Step 1, explaining 45.1% (adjusted R^2 = .41) of the variance in CBSRV. After the entry of past imprisonment at Step 2, the model explained 48.8% (adjusted R^2 = .43) of the variance (F (4, 37) = 8.83, p < .001). However, the contribution of the second block (i.e., past imprisonment) was not statistically significant, R^2_{change} = .04, F_{change} (1, 37) = 2.72, p = .12. In the final model, (lower) RIW and (higher) JSA were both statically significant unique predictors of CBSRV scores, with the RIW component (β = -.45, p < .01) recording a higher beta value than the JSA component (β = .33, p < .05). An examination of the squared semipartial correlation coefficients indicated that, in the final model, RIW and JSA uniquely explained 15.7% and 8% of the variance in victimisation by controlling behaviours, respectively.

Chapter 5: Family Violence Event Descriptions

Overview

A thematic analysis was carried out to examine whether and how risk factors contribute to an IPV event. To this end, we examined participants' key family violence (FV) event descriptions (i.e., those instances of IPV used to anchor the six-month recall period for the assessment of risk factors) and, where participants provided these, additional events. Of the 43 men who participated in the present study, 39 provided at least one FV event description that could be analysed. In total, 60 event descriptions were used in the thematic analysis (i.e., consisting of 41 key events and 19 additional events). In the section that follows, we outline the analytical strategy that was applied to these qualitative data and the key themes that were identified.

The analysis of the FV event descriptions was conducted following the analytic steps outlined by Braun and Clarke (2006). [27] We first examined participants' IPV event descriptions for semantic elements that indicated salient precursors to the occurrence of partner violence (e.g., "argument about the kitchen being a mess," "participant drank beer," "partner received text message from another man"). These served as our codes for the purposes of creating themes. In addition, we attempted to identify recurring features of the physical and non-physical abuse used by participants and their partners in these events (e.g., "swearing," "put-downs," "physical violence"). Second, we grouped similar codes together to make themes and subthemes. For example, all the codes referring to alcohol and other drug use prior to partner violence were grouped under the theme: *alcohol and other drug use prior to IPV*, which itself became a subtheme under a main theme: *alcohol and drugs as IPV precursor.* Then all the relevant coded data extracts were collated under the identified sub- and main themes to gain a sense of the "size" of the themes in the overall data set (Braun & Clarke, 2006). Third, we reviewed and refined the themes, which involved the deletion of some (sub)themes for which there were too few supporting accounts (e.g., "homelessness") and the combining of conceptually similar themes. For instance, "partner's phone use leads to an argument" and "participant walks in on partner having sex" were combined

[27] Hereafter, family violence (FV) event descriptions are referred to as intimate partner violence (or IPV) event descriptions.

to form the subtheme: *participant's jealousy toward a partner*. Ultimately, the identified themes were winnowed down to four main themes, each encompassing conceptually smaller subthemes. Using these analytic steps, we identified the following main themes:

(i) Alcohol and Other Drugs as IPV Precursor

Alcohol and other drugs were mentioned by eighteen participants in 24 IPV event descriptions (approximately 45% of the total accounts). In 21 of these accounts, participants reported using alcohol and/or other drugs before they used physical or non-physical aggression against a partner. Large quantities of the substances were often consumed, and methamphetamine was typically the drug of choice. The use of alcohol on its own was far more commonly reported than the use of drugs alone (16 accounts versus two accounts); and in three event descriptions, participants reported using both alcohol and other drugs prior to the partner abuse. [28] Fourteen of the 31 event descriptions in which participants reported using physical violence also referred to the consumption of alcohol and/or drugs prior to the IPV. Participant 11's key event description was an example of how alcohol and drug use can play a prominent role in partner violence:

> Participant 11 had been partying all week, using methamphetamine daily. He came home from work and had "a few beers". He was tired and wanted to go to bed. His partner, who was also a methamphetamine user, wanted him to get some more methamphetamine. But he had been awake all week and now felt sleep deprived. As he put it in the interview, "Things were not making sense." They started arguing, using colourful language, telling each other to "get fucked." She called him hurtful names and was "running him down." By this stage, he was drunk. He threw a frying pan at the wall and kicked her twice. His partner called the police.

As indicated, alcohol/other drug consumption was a common IPV precursor among the descriptions analsysed, but other issues related to alcohol and other drug use could serve as IPV precursors as well. Three participants said they were suffering from drug withdrawals at the time of their events. For example, participant 14 said his "short temper" the day he assaulted his partner might have been due to

[28] That is not to say participants were not using drugs in the six months preceding the key FV event or that drug use was not a factor in other of their IPV events during that period.

his "coming down" from methamphetamine. In participant 11's account (excerpted above) alcohol and drug use not only occurred prior to his use of IPV, possibly having a disorientating or disinhibitory effect on him, but drugs also featured as a topic of argument for him and his partner prior to the violence. Consequently, within this broad theme of alcohol and drugs as precursor, we identified three subthemes: (a) alcohol/drug consumption prior to IPV (N = 15), [29] (b) drug withdrawals prior to IPV (N = 3), and (c) arguments about alcohol and drugs prior to IPV (N = 3). Arguably subthemes 2 and 3 were both apparent in Participant 31's key event description, which referred to a domestic argument that arose not over alcohol or methamphetamine, but nicotine:

> Participant 31 woke up in the morning and walked over to his packet of cigarettes. There had been 20 cigarettes before he went to bed, and now he was annoyed to find only four remained. He remembers thinking: *she has been up all night smoking the fucking smokes*. He confronted her about the missing cigarettes and an argument began. She said, 'I've been up all night looking after your daughter while you fucking slept.' […] He slapped his wife with an open hand. She looked frightened and ran out of the house and down the street.

Thus, although alcohol and drug consumption prior to IPV was common among participants' descriptive accounts, issues related to alcohol and other drugs (i.e., other than use or intoxication) also appeared to be important proximal factors in several of the IPV event descriptions we analysed. Furthermore, eleven of the 24 event descriptions referring to alcohol and/or other drugs use also indicated the potentially important role of jealousy in domestic abuse.

(ii) Jealousy as IPV Precursor

Twenty-two participants in 29 IPV event descriptions (approximately 48% of the total accounts) alluded to jealous thoughts, feelings, or behaviours prior to the intimate partner violence. Within this main theme, two subthemes were identified: (a) participant's jealousy toward a partner (N = 17) and (b) female partner's jealousy (N = 6). Regarding subtheme one, Participant 35 said the sight of his partner dancing with another man during at pub-hosted family function led him to "flip out." He and his partner then left the pub and argued all the way to a petrol station, where he

[29] That is, the number of participants with at least one account in which the theme was apparent.

punched her and pulled her hair. (The assault left her with a broken eye socket). Interestingly, there were eight IPV event descriptions in which the phone and social media use of one partner appeared to trigger jealousy and suspicion on the part of the other. Participant 27's key event description, which involved an argument about an ex-partner, was one such example:

> Participant 27 and his partner were lying in bed when her phone started to ring. He saw on the caller ID of the phone that it was her ex-husband who was calling. He asked her, "How often does he call you?" […] He and his partner began to argue and he somehow managed to get hold of her phone. According to the phone log, over the last 18 months she had called or received a call from her ex-husband about once a day. His "gut sank" and he remembers thinking, *you dirty lying bugger*. […] He went to the garage, picked up a crowbar, and threw it though the windscreen of her car.

"Female partner's jealousy'"—subtheme 2—although less prevalent among the event descriptions, could also be a catalyst for couple arguments that became abusive. According to Participant 13:

> One night he caught his partner "snooping" through his phone. This led to an acrimonious argument in which lots of verbal abuse was exchanged. […] He lunged at her, grabbed her by the throat, and pinned her to the ground. He suddenly "came to" and he released her.

In another IPV event, Participant 37 described circumstances in which both he and his partner had experienced jealousy prior to the violence:

> He was at a café with his partner, when he said, 'Watch this' and began flexing his thighs. This drew stares from other women in the café and led to the first argument with his partner that day. They made up, went home and started kissing in the kitchen. During the kiss, he thought he saw her staring provocatively at their flat mate, who was sitting in the lounge, behind them. This led to the second argument, during which she punched him in the chest a few times. She then pushed him and he pushed her back. She tripped on the footrest of the couch and fell on the ground. He then told her to 'fuck off.'

Intimacy and violence could be intertwined, with three participants describing events in which they had arrived home from a party or early from work and found their partners having sex with other men. In these cases, the violence was abrupt and frenzied. Participant 34 said he "lost control" and after chasing the man out of the house, he proceeded to smash everything in the house with an axe. In the event description provided by Participant 16, most of the physical violence was directed at the rival man, whom he attacked with a metal cricket bat. In Participant 29's event description, severe physical violence was meted out to both the man and woman in roughly equal measure:

> […] He threw her through a window and threw him (the interloper) through a wall. When he left the house, both his wife and his wife's "friend" were lying on the bedroom floor, unconscious. He then went to a pub and drank until the police arrived.

(iii) Disagreements about Domestic Matters and Childcare

Disagreements with a partner about domestic matters and childcare were referred to by twenty-two participants in 24 IPV event descriptions (40% of the total accounts). These disagreements ranged over a variety of domestic topics, with the present analysis identifying three subthemes: (a) breach of house rules (N = 9), (b) problems over finances and food (N = 7), and (c) childcare and safety requirements (N = 12). Starting with subtheme one, it was apparent that an untidy house could lead to surprisingly fierce arguments between partners. Participant 12's IPV event description is somewhat unusual among the accounts in that the domestic disagreement was not primarily with his partner but her brother:

> The day of the IPV event, the house was "a pigsty". […] P12 saw the dirty dishes in the kitchen and said to his brother-in-law, 'fucking clean up your dishes!' He remembers his brother in law then "get smart" and told him (i.e., P12) to "fuck off." He went over to his brother in law and punched him in the face. His partner tried to break up the fight and he shoved her aside. He then verbally abused his partner, telling her to 'fuck off!' Subsequently, he said his state of mind at that moment was, *hit the person who makes the mess*.

Disagreements about childcare and safety requirements were also relatively prevalent. Participant 32 recalled receiving a Facebook message from his daughter the day of his IPV event, which message informed him that another of his children was "being abused" by his ex-partner's new partner. After drinking alcohol, he drove to the house shared by his ex-partner and the abuser, and a fight erupted in which he physically assaulted both of them. In another event description, Participant 9 recalled how an early-morning disagreement about childcare led to a volatile argument and ultimately to physical partner abuse:

> […] Participant 9 thought it was his partner's turn as he had taken care of the baby the night before. His partner, who by now was angry, was roughly handling the baby, and this made *him* angry. She threw some of the baby's toys at him, and there was pushing and shoving. The argument ended when he slapped her face with the back of his hand.

In other accounts, a domestic disagreement and the participant's alcohol use both seemed salient (and related) during an IPV event. This was the case in Participant 15's key event description:

> The day before the IPV event, Participant 15's partner asked whether he would "watch the girls" in the next evening. However, instead of doing so, he went out to a friend's and "got pissed" and left her to tend to the children. In the early morning he came home drunk, and he knocked on all the doors and windows. His partner yelled, 'You were supposed to watch our girls!' A big argument then ensued. He was swearing, calling her "a bitch" and "worthless". […] A neighbor called the police. When he saw the police coming to apprehend him, Participant 15 went outside and started yelling, 'Which motherfucker called the police?!'

Some of the domestic disagreements and difficulties participants faced seemed to be related to their limited access to material resources. As a consequence, an additional subtheme within the broader theme of domestic disagreements was identified: (4) the impact of financial and community stress ($N = 7$). In Participant 12's event description (excerpted above), he identified unemployment as an important background factor in his IPV event. At the time, he was financially stressed. Sometimes the food he bought in the morning would not last till evening, having been eaten by his partner and their flat mates during the day. In Participant

43's IPV event, the stress associated with living in an unsafe neighborhood may well have intensified the argument that rapidly lead to physical IPV:

> Participant 43 came home from a trip to the laundromat to find the house empty and the backdoor unlocked and open. He lived in a "rough neighborhood" and he could see some local kids peering unbidden into his house through the open door. When his partner came home, he said to her, 'Why the fuck did you leave the door open?' His partner's response was to become "smart" and "cheeky." […] He called her "a bitch" and told her to "get fucked." He then threw a television remote control across the room–to "spook her." […] He grabbed her by the jersey, and she started punching him in the face. She wriggled out of his grip and swung another punch. It missed. She then pushed his television set over and it smashed on the ground. […] He picked her up and threw her on the table.

(iv) Mutual Verbal and Physical Aggression: A Common Pattern

Besides identifying precursors to IPV, we also examined salient features of the domestic abuse itself, including the kinds of abuse used by participants. Thirty-six participants in 49 event descriptions (approximately 82% of the total accounts) referred to partner violence occurring in the context of an argument. A notable exception occurred for participants who had discovered their partners having sex with other men. Here, the anger they experienced could culminate in extreme states. For example, Participant 29 recalled slipping into what was possibly a dissociative state during his IPV event. He said that he "went dead-eyes" and only became fully aware of what his actions had been once both victims were lying unconscious on the bedroom floor. Similarly, Participant 34 recalled that he "went black" and "lost control" before picking up the axe that he used to smash the house.

It is noteworthy, that 29 participants in 36 event descriptions (60% of the total accounts) referred to the use of verbal abuse by one or both partners during the IPV event (e.g., swearing, put-downs, name calling, threats). In the heat of a volatile argument, participants and their partners could employ blatantly offensive and incendiary terms to verbally attack each other. For example, Participant 1's wife, upon finding the kitchen in a mess one day, yelled, 'Clean up your dishes, you black cunt!' Participant 25's key IPV event description might show how verbal abuse can contribute to the escalation of what was initially a non-physical argument:

> Late one night, Participant 25 and his partner were arguing about the state of the house. It was a mess and he had told her to clean it up, telling her it was "not safe for our daughter." The argument became an exchange of abuse and name calling. He called his partner a "terrible partner" and a "terrible mother." She went to leave the house, heading for the car, taking the child with her–to "prove she was a terrible mother" according to the participant–and he blocked her path. She bit him, and he kicked her. At this point, the argument was at an end.

We now turn to the third subtheme in this section. Forty percent of participants (i.e., nineteen participants in 24 IPV event descriptions) reported that they and their partners had both used physical violence in the same event. In many such events, mutual physical and verbal abuse appeared to escalate the couple conflict. This was certainly the case in Participant 42's key event description:

> […] Participant 42 realized his partner was "cranky." […] An argument started that involved name calling (for instance, she called him "a piece of shit") and there was pushing and shoving. He went to his bedroom to get away. She came after him and started hitting him with a pillow. The participant shoved her out of the way, and they started wrestling. Whenever he pushed her away, she kept coming back, yelling at the top of her lungs. As he tried to leave the house, she blocked the door, at which point he picked her up and "dumped her on the ground" […]. She stood up and he punched her in the face. This ended the argument […]. He sat for the next five minutes, repeating 'I'm sorry, I'm sorry, I'm sorry …'

In several event descriptions, participants referred to female partners using physical IPV in self-defense or mostly in self-defense (i.e., five accounts in total). However, there were substantially more events in which participants did not clearly view their partners' physical IPV as self-defense and this amounted to 19 accounts (or about 32 percent of the total accounts). But because female partners were not interviewed, their perceptions, motives and intentions regarding their physical violence are impossible to determine, and therefore no objective view can be formed regarding this pattern. It should also be noted that in 20 percent of the event descriptions, physical IPV was used by the participant alone.

Chapter 6: Discussion

Introduction

The current study examined correlates of intimate partner violence among a group of New Zealand men undertaking a community-based non-violence programme, with a view to identifying potential dynamic risk factors for IPV. Although risk factors for IPV have been studied extensively, much of this recent research has used military samples (e.g., Smith Slep et al., 2015; Foran et al., 2014), and typically the focus has been on physical rather than non-physical partner aggression. This study is therefore different from many previous investigations in that it examined a wide array of coercive and controlling relationship behaviours in addition to measuring physical partner violence. As well, we measured individual and relationship level risk factors, having taken some inspiration from an ecological conceptualisation of partner violence (Dutton, 2006). The risk factor measures we used were based on existing scales developed and used in the family violence research literature. In addition, verbal summaries of participants' IPV events were recorded and qualitatively analysed.

In this chapter, we discuss the key findings of this study with reference to relevant prior research. We also explore the theoretical, research, and policy implications of the findings and comment on the limitations of the study. This research contributes to the general literature on partner aggression and suggests potentially important areas for future prevention and intervention efforts. Furthermore, given the nature of its sample, the present study represents a preliminary effort to understand and identify key issues affecting New Zealand IPV perpetrators, on whom to date relatively little empirical research has been conducted.

Key Findings

At the bivariate level, two risk factor components—stress/negative emotionality and jealousy/substance abuse–were significantly related to physical IPV perpetration. As well, all three risk factor components, when combined in a multivariate model with two demographic variables (i.e., current employment and past imprisonment), accounted for a sizeable portion (approximately 36 percent) of the variance in CTS2 perpetration scores. However, on closer inspection, most of

the variance in physical IPV perpetration that was explained by a combination of the risk factor components was in fact uniquely explained by the jealousy/substance abuse component alone. The finding that the relationship/individual wellbeing component was not significantly related to CTS2 perpetration scores is inconsistent with prior research showing that risk factors at both the individual and relationship, including relationship satisfaction, uniquely predicted men's physical partner aggression (e.g., Smith Slep et al., 2010). With regards to CBSRP scores, more than half (approximately 54 percent) of the variance in men's perpetration of controlling relationship behaviours was explained by a multivariate model consisting of the three risk factor components and one demographic variable (i.e., younger participant age). Contrary to expectations, however, only the jealousy/substance use component explained unique variance in CBSRP scores.

As indicated, at the bivariate level all risk factor components were significantly related to CTS2 (physical IPV) victimisation scores but only the jealousy/substance use component uniquely predicted physical IPV victimisation (i.e., once the influence of other components had been statistically controlled for). Interestingly, the participants' (younger) age and past imprisonment, when added in a separate block to risk factor components, explained an additional and unique 9 percent of the variance in CTS2 victimisation scores. This could be taken to suggest that these variables encompass dimensions of IPV victimisation risk not already captured by the risk factor components. For example, as a static risk factor, a younger age might encompass the influence of dynamic risk factors such as hostility, impulsivity and antisocial associates, each of which has been linked to men's domestic violence (Stewart et al., 2013).

More consistent with expectations, the jealousy/substance abuse component and the relationship/individual wellbeing component both explained unique variance in CBSRV (victimisation by controlling behaviours) scores. This finding is consistent with prior research that has examined correlates of men's and women's emotional abuse victimisation (Foran et al., 2014). In the present study, contrary to expectations, the stress/negative emotionality component was not uniquely predictive of physical partner violence or controlling behaviours in any of the regressions. This might indicate that the mental health and affect variables underlying this component (e.g., depression, financial stress, anger arousal) are at best be only indirectly related to physical and non-physical partner abuse.

Another interesting finding was that prior to the principal components analysis, only a subset of the original scales was significantly related to physical IPV perpetration; and these included the alcohol abuse measure and the drug abuse measure. The third significant scale–the Health-related Social Needs Screening Tool—the measure we adopted to document financial and other stress—has, as far as we are aware, not yet been subjected to any extensive empirical or psychometric validation. Another noteworthy finding was that most of the risk factor scales *were* significantly related to the perpetration of controlling behaviours and of these, the two strongest correlates were drug abuse and relationship discord (i.e., arguing and "getting on each other's nerves"). The strongest correlate of physical IPV victimisation in the present study was physical IPV perpetration, a finding consistent with several previous studies showing that men and women are at greater risk of IPV victimisation when they themselves are physically violent towards a partner (e.g., Stith et al., 2004; Sprunger, Eckhardt, & Parrott, 2015).

We also conducted a thematic analysis to begin to address a major limitation inherent in IPV risk factor correlational research; namely, an inability to discern whether risk factors play a central (or in fact any role) in an IPV event. The findings of the qualitative analysis were consistent with the quantitative findings in that the former identified risk factors we endeavoured to also examine quantitatively. Jealousy featured prominently in the event descriptions, emerging as a salient IPV precursor in nearly half of these accounts. Previous research has shown that jealousy is a frequently reported proximal antecedent for IPV (Babcock et al., 2004a) and a common relationship problem among partner-abusive men undergoing an intervention (LaMotte et al., 2018). Interestingly, however, in the present study the jealous cognitions of participants, as reported for the six months before an IPV event, were not significantly related to IPV perpetration at the bivariate level.

Along with jealousy, alcohol and drug use emerged as a main theme in many of the IPV event descriptions we collected. The quantitative findings suggest that alcohol and other drug abuse is a moderately strong correlate of IPV, but the qualitative findings provide insight as to how substance use might often be related to partner aggression. In thirty-five percent of the event descriptions, alcohol and other drug use appeared to be a salient proximal precursor to the participant's use of IPV. This finding lends some support to a proximal effects view of the alcohol-IPV link (Klostermann & Fals-Stewart, 2006). Furthermore, these impressions are broadly consistent with past quantitative research showing men are significantly

more likely to perpetrate IPV on days they have been drinking than on their non-drinking days (e.g., Fals-Stewart, 2003; Moore et al., 2011).

The third main theme that emerged from the qualitative data was disagreement about domestic matters and childcare. Nevertheless, it was the fourth theme—mutual aggression—which suggests that *how* some couples argue, along with what they argue about, might be important to a more complete understanding of partner violence (e.g., Babcock et al., 1993). In over 80 percent of the event descriptions, the partner abuse seemed to occur during an argument and often included the use of verbal aggression by one or both partners (e.g., swearing, put-downs, name-calling). The patterns of abuse we observed are consistent with prior research showing that IPV often occurs in the context of escalating couple disagreements (O'Leary & Smith Slep, 2006). The substantial number of participant accounts in which both partners used physical violence also coheres with past research indicating that mutual IPV may be a common, if not the most common pattern of physical partner aggression (Langhinrichsen-Rohling et al., 2012b).

In view of these findings, it is interesting that the two relationship level risk factors we examined—relationship satisfaction and relationship discord—were not significantly related to physical IPV perpetration at the bivariate level. One possible explanation for this is that, in the present study, more objective behavioural indicators of relationship functioning—participant and partner verbal aggression—were measured as controlling behaviours (i.e., as a separate type of IPV) rather than a correlate or predictor of physical IPV. Participants' subjective ratings of relationship satisfaction and discord hopefully gave an indication of relationship functioning. But the ratings might have also reflected biased or unreasonable expectations (both high and low) of their partners. In a more general sense, these considerations highlight some of the conceptual difficulties inherent in cleanly delineating and measuring risk factors for IPV, especially when some risk factors—e.g., verbal abuse, argumentativeness, even alcohol and drug abuse—can be viewed as separate types of partner abuse.

Finally, as already indicated, most IPV event descriptions referred to more than one of the themes outlined above. Similarly, although only the jealousy/substance abuse component accounted for unique variance in IPV perpetration, almost all risk factor components were significantly related to IPV perpetration and victimisation at the bivariate level. Furthermore, the one component that was uniquely predictive of the perpetration of both physical IPV

and controlling behaviours was itself comprised of three distinct risk factor measures (i.e., alcohol abuse, drug abuse, and jealous cognitions). Therefore, the general expectation that several different risk factors would be significantly related to partner abuse also seems to be supported by the results of this study.

Limitations

The small sample size relative to the number of IPV risk factors assessed necessitated the use of a data reduction method (i.e., a principal components analysis) to decrease the number of comparisons made, increase the statistical power of the predictors, and create more readily interpretable results. Because we examined risk factor components rather than risk factor scales in the regressions, the relationships between individual risk factors and partner aggression measures were not explored beyond their bivariate associations. In defence of this practice, in the principal components analysis (PCA) the risk factor scales generally loaded onto components on which other conceptually similar risk factors had also loaded. That depression, anxiety, stress, and anger arousal loaded onto the same component made sense in light of previous research showing many variables related to negative affect are linked to both IPV and to one another (e.g., Birkley & Eckhardt, 2015).

Interestingly, the jealousy-related cognitions of participants loaded more strongly with alcohol abuse and drug abuse in the third component than with relationship discord, relationship satisfaction and individual flourishing in the second component. In terms of past research, there is evidence that, for some, alcohol use can represent an attempt to cope with jealous feelings (Knox, Breed, & Zusman, 2007). Furthermore, meta-analytic research indicates that jealousy moderates (i.e., intensifies) the association between alcohol use and physical partner aggression (Foran & O'Leary, 2008). These studies might help explain the PCA loading patterns we observed and suggest why the component measuring both jealousy and substance abuse appeared to be the strongest predictor of IPV perpetration in the present study.

Further sample size issues with regard to the multivariate analyses should be noted. Some authors have argued that, under certain conditions, a principal components analysis with a small sample is appropriate (e.g., de Winter, Dodou, & Wieringa, 2009). Nevertheless, the sample in the present study was arguably too small to minimize sampling error, and the PCA ran the risk of overfitting the data.

Similarly, in some of the regressions the number of cases per predictor was slightly less than the ideal minimum ratio of 15: 1 (Stevens, 1996). Thus, although all final models were statistically significant, the results must be treated cautiously. They may not generalize to other populations, and they certainly require replication and confirmation.

The location in which the present study was primarily conducted may also limit the generalizability of the findings. Most study participants (approximately 84 percent) were recruited from a single agency in one medium-sized city in New Zealand. This city has a higher percentage of Maori residents (21.3%) than the NZ average (StatsNZ, 2013). Furthermore, the disproportionate number of prisons in the surrounding region may have led to the inclusion of more participants with extensive criminal histories, general antisocial orientations, and higher than average rates of self-reported IPV than would have been the case had other agencies been used. The present study was further limited by the deployment of a purposive sampling method: men who chose not to participate may have been different from men who did participate with regards to their risk factors and partner violence.

Causation cannot be inferred from the present investigation, which was a correlational study. In theory, each risk factor we examined may be a cause of partner abuse, a consequence of partner abuse, have bi-directional effects, or have no direct relationship at all to partner abuse (e.g., Yoon & Lawrence, 2013). Given that logically a cause must temporally precede its effect, longitudinal research would be needed to address directionality. Hence, the quantitative findings can only highlight which risk factors might relate to partner aggression, not *how* they do so. For example, as White & Chen (2002) have suggested, problematic drinking by partners may erode relationship satisfaction and quality and by this means increase the frequency and volatility of arguments and therefore the likelihood of partner aggression. But alcohol use might also increase in the wake of IPV and possibly to cope with the stress of IPV perpetration and victimisation.

The qualitative findings of this study, nonetheless, do probably provide help illuminate the roles factors can play in some cases of partner aggression. In many of the IPV event descriptions, jealousy, domestic disagreements, and alcohol and drug use *preceded* the use of aggression by one or both partners. For these participants in these events, the precursors we identified appeared to be contributing causes of the partner violence. A limitation here, however, was that participants were restricted to describing only two IPV events, and additional themes and

features of their partner violence would probably have been identified had participants been asked about other past events.

A major strength of this study was that the risk factor and IPV measures referred to the same six-month period. To make this possible, all measures were modified so that for each participant the time period assessed was kept consistent. Nonetheless, all the data are self-report and, as previous surveys have shown, physical IVP perpetration is likely to be underreported (e.g., Schafer, Caetano, & Clark, 2002). Many participants may have been reluctant to disclose the full extent of their partner violence perpetration/victimisation due to feelings of shame or guilt or from a desire to a make a positive impression. In the present study, participants were asked to not only report their own violence, but also their partners' (that is, we assessed men's IPV victimisation as well as their perpetration). Recent research suggests that men are more likely than women to overreport victimisation when their IPV is measured via the Conflict Tactics Scale (Ackerman, 2018). With this in mind, to increase the accuracy of IPV reporting, future research in this area should use female partners' self-reported rates of victimisation as an estimate of men's perpetration (Gondolf, 2002).

Some final limitations of the present study are worth noting. As indicated, participants' risk factors and rates of IPV were assessed for a specific period (i.e., usually the six months immediately preceding the referral IPV event). For some participants, this required recalling events and circumstances that occurred more than a year prior to the interview. Even though we provided participants with a calendar to anchor recall, difficulties remembering relevant information might have affected the accuracy of both the risk factor scores and the IPV event descriptions. In addition, the sample included men at different stages of programme completion; including some who had not yet begun a programme. Participants may have thus differed in their awareness of relevant risk factors, as well as in their willingness to share personal information. Finally, a number of empirically-supported risk factors for IPV were included in the present study, but we could not reasonably investigate all potentially relevant risk factors for partner aggression.

Theoretical and Research Implications

To restate, the three risk factor components, along with two demographic variables (past imprisonment and current employment), explained almost a third of the

variance in physical IPV perpetration. But this means that almost two thirds of the variance in the physical IPV perpetration scores was *not* explained by either the risk factor components or the demographic predictors. Similarly, more than half the variance in participants' perpetration of coercive and controlling behaviour was accounted for by the risk factor components. But here, too, a substantial portion of the variance was left unexplained. Therefore, future New Zealand research in this area may need to cast a wider net with regards to theoretically relevant risk factors for intimate partner violence.

From a psychology of criminal conduct perspective, a distinction is made between *static* and *dynamic* risk factors (Andrews & Bonta, 2010). Age, ethnicity, and criminal history, which are fixed or slow to change aspects of the offender's history, are conceptualized as static factors. Dynamic risk factors, by contrast, are more readily changeable behavioural and psychological characteristics that if successfully altered, result in a reduction in a problem behaviour (Andrews & Bonta, 2010). Both types of factor can inform risk assessment and prediction, but dynamic factors often have more clinical utility because of their greater amenability to change (Andrews & Bonta, 2010). However, as Beech and Ward (2004) have pointed out, static factors are often only risk markers of the influence of past or present *dynamic* factors. This might explain why, in the present study, certain static demographic variables (i.e., younger age and past imprisonment) were not uniquely predictive of the men's partner aggression once the influence of the dynamic risk factor components had been statistically controlled for.

Significantly, other authors have argued that whether a risk factor is dynamic or static is less important than whether it is *psychologically meaningful* (Mann, Hanson, & Thornton, 2010) In other words, is it a plausible *cause* of a problem behaviour, as well as empirically supported? Ward and Beech (2015) point to yet another complexity, which is that dynamic risk factors are themselves often only indicators of the social and psychological causal processes underlying a problem behaviour. Therefore, equating risk factors with treatment needs or causal processes can be a mistake. Nevertheless, the investigation of additional risk factors would likely add to our growing understanding of partner aggression and suggest new avenues for intervention and prevention efforts. Impulsivity, antisocial associates, stress, and shame have been identified as potentially important, though relatively under-examined risk factors for IPV (Stewart et al., 2013).

Of the potential dynamic risk factors examined in the present study, only the jealousy/substance abuse component explained unique variance in IPV perpetration. Meanwhile, both the jealousy/substance abuse component and the relationship/individual wellbeing component were unique predictors of victimisation by controlling relationship behaviours. In addition, participant age explained unique variance in physical IPV victimisation over and above that explained by the dynamic risk factor components. These findings highlight the importance of assessing different types of IPV separately (i.e., perpetration vs. victimisation, non-physical vs. physical assaults) to ensure treatment efforts target the most appropriate factors relating to each dimension and type. The failure of two risk factor components to make unique contributions to the prediction of IPV perpetration suggests that many of the variables comprising these components might at best have only indirect associations with partner aggression. Alternatively, any associations between risk factors and IPV may simply be spurious. But because the findings highlight the potential importance of jealousy connected with substance abuse in both physical IPV and coercive and controlling behaviours, future research should investigate whether jealousy-related cognitions might moderate or even mediate the association between substance use and partner abuse for men undertaking non-violence treatment.

Furthermore, although the present study identified several putative risk factors for various types physical and non-physical partner violence, we neither explored change in these variables over time, nor attempted to effect change in them experimentally (or quasi-experimentally). Nor did we examine whether change in the strength of risk factors was associated with a subsequent reduction (or increase) in partner abuse. Again, from a psychology of criminal conduct perspective, a distinction is made between simple predictors and dynamic predictors (Andrews & Bonta, 2010). Simple predictors are identified by cross-sectional research in which both risk factor and criminal activity measures are taken at the same time. Dynamic predictors (or dynamic risk factors), by contrast, are identified by longitudinal research in which criminal activity is measured subsequent to risk factors. Only longitudinal designs allow researchers to exert control over the temporal order of variables (i.e., allow outcomes to be measured subsequent to risk factors) and thereby ensure the covariation is prospective. This is the defining feature of a dynamic risk factor (Andrews & Bonta, 2010). Thus, future New Zealand research in this area should endeavour to adopt longitudinal designs and, where possible,

measure risk factors and rates of partner aggression before, during, and after an intervention designed to effect change in these variables.

Whether identifying dynamic risk factors or only dynamic correlates, the findings of the present study support a multi-factor conceptualisation of partner aggression. One advantage of broad multifactor theoretical models of IPV is that they can incorporate risk factors across different ecological levels (Dutton, 2006), developmental processes (Capaldi et al., 2005) and event stages (Finkel & Hall, 2018). Based on an ecological conceptualisation, the present study examined both individual and relationship level risk factors. However, prior research has identified several community factors that might also be relevant to physical partner abuse, including support from neighbours, support from agencies, and community cohesion (Smith Slep et al., 2010; Foran et al., 2014). Future research could also explore how financial stress might elevate or reflect men's IPV risk, given that it was one of the few risk factors significantly related to physical IPV perpetration in the present study. In relation to this objective, some guidance might be found in existing economic and family stress theoretical models of domestic violence (for instance, refer to DeMaris et al., 2003; Lucero, Lim, & Santiago, 2016).

The present study fills a research gap by examining the risk factors in relation to self-reported accounts by men of female partner aggression. More so than physical IPV perpetration, men's self-reported physical IPV victimisation was significantly related to many of the measured risk factors at the bivariate level. In particular, physical victimisation was associated with jealous cognitions, alcohol abuse, relationship discord, and (lowered) relationship satisfaction. In addition, and as indicated earlier, approximately 16 percent of the variance in men's victimisation by controlling and coercive behaviours was uniquely explained by (lower) relationship/individual wellbeing scores. This finding suggests that some relationship functioning factors might be significantly related to non-physical partner abuse even after accounting for their co-variation with several well-documented individual level risk factors for IPV. One obvious explanation is that relationship quality declines as a direct consequence of being victimised. Another possibility, and one supported by some prior research, is that a bi-directional relationship might exist between relationship quality and some types of psychological abuse (Yoon & Lawrence, 2013).

An examination of controlling relationship behaviours is itself a somewhat novel aspect of the present study considering that most prior IPV research has

focused on physical rather than non-physical aggression, or it has conceptualised the latter narrowly (and, mostly, as verbal abuse). The relative neglect of this area is a concern given the growing number of studies showing that non-physical IPV is associated with negative mental and physical health outcomes (Taft et al., 2006), including one which found that emotional abuse lead to *worse* outcomes than physical victimisation (Lawrence et al., 2009). Therefore, the relative neglect of this area should continue to be addressed in future IPV research.

Survey studies of IPV, particularly those employing the Conflict Tactics Scale, have been criticized for decontextualizing partner aggression to the point that one cannot make clear inferences regarding motive (White, Smith, Koss, & Figueredo, 2000) or underlying mechanism (Birkley & Eckhardt, 2015). Mindful of these limitations, we used a mixed method approach to shed light on the role of risk factors in the build-up to an IPV event, while also attempting to catalogue risk factors for partner violence. Nevertheless, as several commentators contend (Capaldi et al., 2012; O'Leary & Smith Slep, 2006), more research investigating what occurs during an IPV event is needed.

Some of the event descriptions alluded to other kinds of family violence (e.g., sibling assault) and, in some cases, general violence. In addition, the demographic data indicated that many participants had extensive and diverse criminal offending histories. Extant research suggests that there might be shared risk factors for IPV and general offending (Moffitt et al., 2000; Stewart et al., 2013). Indeed, risk prediction instruments designed for general offending can predict partner aggression with roughly the same accuracy as domestic violence-specific instruments (Hanson, Helmus & Bourgon, 2007). At the same time, some IPV typological research indicates that IPV perpetrators comprise aetiologically distinct groups, each of which differs in its propensity for general antisocial behaviour. The three-category typology developed by Holtzworth-Munroe and Stuart (1994) is a case in point. It seems, then, that the extent to which IPV perpetrators differ from general offenders is still unclear. Future research could catalogue and compare risk factors for IPV and general violence/antisociality, as well as for other types of family violence, including sibling assault and child abuse. Such research may allow for a greater integration of the IPV and general offending literature, while also having implications for effective offender rehabilitation.

Clinical and Policy Implications

The study of dynamic risk factors for IPV holds promise as a means of identifying fruitful, empirically validated treatment targets for IPV interventions. These include non-violence programmes, which are often referred to as *batterer intervention programmes* or BIPs. The findings of the present study suggest that the substance use issues of perpetrators should be a focus of New Zealand domestic violence interventions. Precisely how alcohol and drug use relate to partner aggression is an empirical matter, however; and one that has been the subject of academic debate. Some researchers have claimed direct effects (e.g., due to disinhibition and increased aggression), others posit indirect effects (e.g., through the erosion of relationship satisfaction), and still others see no effect at all, but only covariation with other risk factors that they believe are causally-related to IPV (Klostermann & Fals-Stewart, 2006).

Traditionally, feminist scholars and women's advocacy groups have been critical of the notion that alcohol use is central to partner violence (e.g., Dobash & Dobash, 1979). Possibly this stems from a concern that such a view absolves perpetrators of responsibility and diverts attention from the role of patriarchal attitudes and power structures (Pence & Paymar, 1983). However, the assertion that alcohol use plays no meaningful role in IPV has now been roundly contradicted by a plethora of cross-sectional and longitudinal research (see Capaldi et al., 2012). Most persuasive of all perhaps is research showing that individual and couple-based alcoholism treatment can lead to significant reductions in men's physical partner aggression post-treatment (O'Farrell et al., 2003; O' Farrell, Murphy, Stephan, Fals-Stewart, & Murphy, 2004).

On the other hand, it is true that IPV perpetrators are not a homogeneous group (Holtzworth-Munroe, & Meehan, 2004) and in the present study, there were many participants for whom alcohol and drug use did not appear to be relevant risk factor. Jealousy-related cognitions, financial stress, relationship problems, and mutual partner aggression are other potentially important intervention areas indicated by the present study. Recent multifactor theories of IPV have argued that partner aggression emerges out of a complex and bi-directional interplay of perpetrator characteristics, couple and family dynamics, peer and work group influences, and broader societal factors, such as cultural norms and values. Notably, at each level of analysis, there may be risk factors that hold promise as IPV

intervention targets (Dutton, 2006; Capaldi et al., 2005; Finkel, 2007). Given the heterogeneity of perpetrators, not all men who engage in IPV will necessarily have the same risk factors. Therefore, to be effective, clinical treatments will need to be tailored to the unique factors that relate to each perpetrator.

A broad multidimensional view of partner aggression also highlights the importance of designing interventions for *individuals* rather than a *gender;* and makes plain the need to resist comparatively simplistic and ideologically-driven conceptualisations of intimate partner violence. On-going adherence to traditional understandings of IPV, despite their lack of empirical support, has been proposed as a factor most likely undermining the effectiveness of BIPs in the United States and Canada (Dutton & Nicholls, 2005; Cannon et al., 2016).

IPV and the Clinical Relevance of the RNR Framework

In view of the problems and deficiencies of current approaches, many scholars have argued that non-violence programmes should adopt the effective correctional intervention principles derived from the general offending literature (Dixon & Graham-Kevan, 2011; Stewart et al., 2013; Babcock et al., 2016). And these are the principles of risk, need, and responsivity (RNR). As has been indicated, the *risk* principle holds that an assessment of both static and dynamic risk factors should guide the allocation of offenders into appropriate levels of treatment, and thereby ensure the intensity of the intervention is commensurate with the perpetrator's risk of reoffending. The *need* principle holds that successful interventions are generally those that target dynamic risk factors. These are psychological and behavioural characteristics of the offender that, if changed, result in a subsequent reduction in the offending behaviour (Andrews & Bonta, 2010). The *responsivity* principle stipulates that effective interventions tend to enhance the offender's engagement and ability to learn through cognitive and behavioural skill building approaches, with content tailored to the learning style, motivation level, and abilities of the offender (for further explanation, see Andrews & Bonta, 2010).

Until recently, the development of non-violence programmes for IPV has proceeded somewhat separately from correctional innovations in reducing criminal behaviour (Polaschek, 2016).And it is possible that traditional approaches to domestic violence prevention have insulated a questionable belief that partner aggression is aetiologically distinct from other types of criminality (Andrews &

Bonta, 2010; Moffitt et al., 2000). Even if it were true that IPV is a distinct and separate type of offending, an RNR treatment framework is actually conceptually akin to many well-validated multifactor theoretical models of partner aggression. Specifically, those proposed by Dutton (2006), Capaldi et al. (2005), and Finkel, (2007). For example, both Dutton's (2006) ecological model and an RNR framework underscore the need for interventions to target a broad array of risk factors across diverse contexts (i.e., individual, family, and community levels); both emphasize risk factors that have been empirically shown through cross-sectional, longitudinal, and experimental research to be strongly associated with problematic behaviours; and both are underpinned by an orientation sceptical of sociological theories that neglect individual differences in relevant psychological variables (Dutton, 2006; Andrews & Bonta, 2010). Most importantly, and unlike many previous treatment approaches (such as the Duluth Model), an RNR framework enables the intensity and focus of interventions to be tailored to the specific risk profiles and offending-related needs of IPV perpetrators (Babcock et al., 2016).

Despite these potential advantages of RNR in relation to IPV, some limitations should also be noted. Partner violence often co-occurs and is entangled with other types of family harm, including child maltreatment (Zolotor et al., 2007). Thus, in addition to addressing partner violence, ideally non-violence programmes should endeavour to enhance general family functioning; that is, promote positive change in sibling, parental, and even extended family relations (Polaschek, 2016). RNR-adhering programmes, however, tend to be concerned primarily with reducing recidivism, and not necessarily with enhancing individual and family wellbeing. At best, recidivism is a rather crude indicator of family wellbeing (Polaschek, 2016). Consequently, a focus on criminal offending may leave more covert, though still destructive, types of inter-personal aggression among family members unexposed and unaddressed (Polaschek, 2016).[30] Such interpersonal aggression might include neglect, verbal aggression, and controlling and threatening behaviours. Furthermore, a strict focus on offending-relevant factors could lead interventions to neglect so-called "irrelevant" factors (e.g., poverty, lack of personal fulfilment, poor mental health). These issues, though not directly linked to offending, can still create still considerable hardship for families.

[30] See Polaschek (2016), for an in-depth discussion of the benefits and limitations of an RNR approach in the context of New Zealand family violence interventions.

Another limitation stems from the fact that RNR typically underpins rehabilitation programmes delivered to mostly male offenders in a correctional context. Prior research has indicated that mutual aggression is a common, if not the most common pattern of partner aggression (Langhinrichsen-Rohling et al., 2012a) and that women's motives for partner aggression are as diverse as men's (Bair-Merritt et al., 2010; Langhinrichsen-Rohling et al., 2012b). Because many studies, including the present one, suggest that IPV can be related to the dysfunctional relationship dynamics of couples (e.g., communication skills deficits, mutual aggression), it will not always suffice for non-violence programmes to work with male perpetrators in isolation. In some instances, at least, couple therapy might be appropriate (Babcock et al., 2016).

In theory an RNR approach is not opposed to multilevel interventions (i.e., targeting factors at the individual, couple/family, and community levels). In practice, however, adult correctional programmes tend to focus almost solely on the individual perpetrator and *his* risk factors (Polaschek, 2016). Furthermore, at present, the criminal justice system's response to domestic violence has a heavy emphasis on addressing *male*-perpetrated IPV. Men are disproportionately arrested and prosecuted for domestic violence (Shernock & Russell, 2012) and they make up most enrolments in BIPs in the United States and Canada (Cannon et al., 2016). Altogether, then, the ability of RNR-adhering non-violence programmes to engage directly with female IPV perpetrators is currently limited.

Of course, couple theory for IPV perpetrators will not always be the most appropriate or effective strategy. This is made plain by some IPV typological research, which has identified offender and violence profiles for partner violence that reflect varying dimensions of risk (e.g., severity, frequency, generality of violence, psychopathy (Stewart et al., 2013)). A well-known example is Johnson's (1995) typology, which distinguishes between "common couple violence" (i.e., generally low-level, bi-directional violence arising from couple disagreements) and "patriarchal terrorism" (i.e., systematic, on-going, and instrumental violence used by men in furtherance of patriarchal control). This much more extreme variety was subsequently renamed "interpersonal terrorism" to recognise that women are also capable of perpetrating severe domestic abuse against men. Meanwhile, Capaldi and Kim (2007) have questioned the utility of batterer typologies altogether, arguing that they tend to ignore partner risk factors, the context of abuse, and change over time (Capaldi & Kim, 2007). In any case, a consideration of *couple* as well as

individual risk should probably inform pre-programme planning for partner violent men and women. Joint interventions, such as couple counselling, are likely to be especially relevant for couples whose violence is mutual, at low levels of frequency and severity, and arises from unhelpful relationship dynamics. In other words, IPV of the "common couple" variety (Stewart et al., 2013; Babcock et al., 2016).

Despite the above limitations, an RNR framework could lend a much-needed reconceptualization to IPV interventions, one in which the critical importance of identifying empirically supported dynamic risk factors for partner aggression is emphasised. As the general criminal psychology literature has shown, RNR-adhering rehabilitation programmes, properly implemented, can lead to substantial reductions in recidivism (Landenberger & Lipsey, 2005). This is not to say that non-violence programmes have the potential to be a panacea. Rather, as others have argued, ideally IPV perpetrator programmes should form one part of an integrated community response to family violence (Babcock et al., 2016; Polaschek, 2016). In such a context, RNR and conventional non-violence programmes could be used in conjunction with effective criminal justice monitoring, as well as other social support services for offenders and victims. Other services and facilities might include parenting programmes, substance abuse treatment, and educational and legal support. Comprehensive support such as this, though resource-intensive and difficult to coordinate, would likely achieve more lasting gains for perpetrators and their families than non-violence programmes alone.

Final Thoughts

The present study attempted to identify potential dynamic risk factors for partner violence among New Zealand men undertaking a community-based non-violence programme. Its findings cohere with past research showing that domestic violence is a complex, multidimensional phenomenon encompassing a broad range of potential risk factors. As such, IPV poses a formidable challenges to prevention and intervention efforts. However, international research has begun to rigorously investigate the strengths and weakness in current approaches to perpetrator treatment (e.g., Babcock et al., 2016; Canon et al., 2016) and it is incumbent upon New Zealand researchers to do the same. For example, one recent review identified a need for sweeping change in United States batterer intervention programmes, change that includes improvements in facilitator training and education, the

adoption of additional treatment modalities (including couple and family therapy approaches), and the need for greater inclusion of *multiple* theoretical perspectives of partner violence (Babcock et al., 2016). Whatever the shortcomings of New Zealand's current approaches to the prevention of domestic violence, however, one thing already seems clear: the IPV problem will not yield to any "quick-fix" solution or "common sense" strategy. To date, amongst other exhortations, we have heard demands for more punitive sentences (Sensible Sentencing Trust, n.d.) and for the adoption of less rigid gender roles (White Ribbon, 2018). Rather, success in this area will likely depend on the collective effort of a team of highly skilled policy makers and human service practitioners, each of whom should have at least one foot firmly planted in the empirical literature. Furthermore, intervention efforts are likely to be hampered, not helped, by any on-going deference to outdated theories of intimate partner violence to the exclusion of other perspectives.

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Appendix

Between Group Analyses

Table 1

Results of Independent Samples t Tests Comparing Unemployed (N = 14) and Employed/Studying full-time (N = 29) Participants

	t	*df*	Sig.	Mean difference	*SE diff.*	Lower CI	Upper CI	*d*	Lower CI	Upper CI
DASS	2.17	38	.04*	8.48	3.91	.56	16.4	.62	-3.49	4.72
BPAQA	2.02	41	.05	3.97	1.97	-.005	7.95	.67	-1.10	2.44
RAS	.54	41	.59	1.11	2.06	-3.05	5.27	.18	-1.67	2.03
DAS	-.02	40	.98	-.02	.78	-1.60	1.56	.004	-.70	.69
MJS	1.24	40	.22	6.31	5.10	-4.00	16.6	.42	-4.09	4.93
AUDIT	1.78	40	.08	5.94	3.35	-.82	12.7	.61	-2.35	3.57
CBSRP	1.98	40	.06	10.0	5.08	-.23	20.3	.68	-3.82	5.17
CBSRV	-.15	40	.88	-1.09	7.09	-15.4	13.2	.05	-6.33	6.22

DASS = Depression Anxiety Stress Scales; *BPAQ* = Buss-Perry Aggression Questionnaire; *RAS* = Relationship Assessment Scale; *DAS* = Dyadic Adjustment Scale; *MJS* = Multidimensional Jealousy Scale; *AUDIT* = Alcohol Use Disorder Identification; *CBSRP* = Revised Controlling Behaviors Scale (perpetration); *CBSRV* = Revised Controlling Behaviours Scale (victimisation).
*Significant result (two-tailed).

Table 2

Results of Mann-Whitney Tests Comparing Unemployed (N = 14) and Employed/Studying Full-time (N = 29) Participants

	U	*Z*	Sig.	*r*
HRSN	87.0	-3.02	.003*	.46
FS	182	-.55	.59	.08
DAST	62.5	-3.57	.000*	.55
CTS2P	117	-1.97	.049*	.30
CTS2V	136	-1.43	.15	.22

HRSN = Health-related Social Needs Screening Tool; *FS* = Flourishing Scale; *DAST* = Drug Abuse Screening Test; *CTS2P* = Revised Conflict Tactics Scale (perpetration); *CTS2V* = Revised Conflict Tactics Scale (victimisation).
*Significant result (two-tailed).

Table 3

Results of Independent Samples t Tests Comparing Criminal/Family Court Referral (N = 24) and Self-referral (N = 19) Participants

	t	*df*	Sig.	Mean difference	*SE diff.*	Lower CI	Upper CI	*d*	Lower CI	Upper CI
DASS	-.29	41	.78	-1.29	4.49	-10.4	7.78	.09	-4.36	4.18
BPAQA	-.33	41	.74	-.65	1.95	-4.57	3.29	.10	-1.95	1.75
RAS	-.94	41	.35	-1.81	1.92	-5.70	2.09	.29	-2.13	1.54
DAS	.17	40	.87	.12	.73	-1.34	1.60	.05	-.64	.74
MJS	1.80	39.4	.08	8.12	4.51	-1.02	17.2	.55	-3.88	4.98
AUDIT	.96	40	.34	3.06	3.19	-3.40	9.51	.31	-2.73	3.34
CBSRP	-.07	40	.95	-.33	4.95	-10.3	9.67	.02	-4.73	4.69
CBSRV	1.44	40	.16	9.23	6.43	-3.76	22.2	.46	-5.66	6.58

DASS = Depression Anxiety Stress Scales; *BPAQ* = Buss-Perry Aggression Questionnaire; *RAS* = Relationship Assessment Scale; *DAS* = Dyadic Adjustment Scale; *MJS* = Multidimensional Jealousy Scale; *AUDIT* = Alcohol Use Disorder Identification; *CBSRP* = Revised Controlling Behaviors Scale (perpetration); *CBSRV* = Revised Controlling Behaviours Scale (victimisation).

Table 4

Results of Mann-Whitney Tests Comparing Criminal/Family Court Referral (N = 24) and Self-referral (N = 19) Participants

	U	*Z*	Sig.	*r*
HRSN	199	-.71	.48	.12
FS	214	-.36	.72	.05
DAST	218	-.01	.99	.002
CTS2P	205	-.34	.73	.05
CTS2V	213	-.15	.88	.02

HRSN = Health-related Social Needs Screening Tool; *FS* = Flourishing Scale; *DAST* = Drug Abuse Screening Test; *CTS2P* = Revised Conflict Tactics Scale (perpetration); *CTS2V* = Revised Conflict Tactics Scale (victimisation).

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Table 5

Results of Independent Samples t Tests Comparing Protection/Non-association order (N = 29) and No Protection/Non-association order (N = 9) Participants

	t	*df*	Sig.	Mean difference	*SE diff.*	Lower CI	Upper CI	*d*	Lower CI	Upper CI
DASS	-.26	36	.80	-1.41	5.44	-12.4	9.62	.10	-4.51	4.31
BPAQA	-.30	36	.77	-.69	2.30	-5.35	3.98	.12	-1.98	1.75
RAS	-.61	36	.55	-1.44	2.38	-6.26	3.37	.24	-2.16	1.68
DAS	-.05	25.1	.96	-.04	.67	-1.42	1.35	.02	-.75	.71
MJS	1.64	35	.11	9.26	5.64	-2.19	20.7	.65	-3.97	5.26
AUDIT	.84	35	.41	3.29	3.91	-4.64	11.21	.33	-2.86	3.53
CBSRP	.87	35	.39	5.28	6.06	-7.02	17.6	.34	-4.61	5.30
CBSRV	1.60	35	.12	12.6	7.88	-3.36	28.6	.63	-5.82	7.08

DASS = Depression Anxiety Stress Scales; *BPAQ* = Buss-Perry Aggression Questionnaire; *RAS* = Relationship Assessment Scale; *DAS* = Dyadic Adjustment Scale; *MJS* = Multidimensional Jealousy Scale; *AUDIT* = Alcohol Use Disorder Identification; *CBSRP* = Revised Controlling Behaviors Scale (perpetration); *CBSRV* = Revised Controlling Behaviours Scale (victimisation).

Table 6

Results of Mann-Whitney Tests Comparing Protection/Non-association Order (N = 29) and No Protection/Non-association Order (N = 9) Participants

	U	*Z*	Sig.	*r*
HRSN	99	-1.09	.28	.18
FS	120	-.36	.72	.06
DAST	78.5	-1.74	.08	.29
CTS2P	110	-.57	.57	.09
CTS2V	95	-1.1	.27	.18

HRSN = Health-related Social Needs Screening Tool; *FS* = Flourishing Scale; *DAST* = Drug Abuse Screening Test; *CTS2P* = Revised Conflict Tactics Scale (perpetration); *CTS2V* = Revised Conflict Tactics Scale (victimisation).

Table 7

Results of Independent Samples t Tests Comparing Participants with Five or Fewer Criminal Convictions (N = 24) and Participants with More than Five Convictions (N= 19)

	t	*df*	Sig.	Mean difference	*SE diff.*	Lower CI	Upper CI	*d*	Lower CI	Upper CI
DASS	-.18	41	.86	-.82	4.49	-9.89	8.25	.06	-4.33	4.21
BPAQA	-.28	41	.78	-.55	1.95	-4.48	3.38	.09	-1.94	1.76
RAS	-1.71	41	.10	-3.22	1.88	-7.02	.58	.54	-2.33	1.25
DAS	.86	40	.39	.63	.72	-.84	2.09	.28	-.41	.96
MJS	.24	40	.81	1.17	4.85	-8.64	11.0	.08	-4.52	4.67
AUDIT	-1.50	40	.14	-4.72	3.16	-11.1	1.66	.48	-3.47	2.51
CBSRP	-.51	40	.62	-2.51	4.96	-12.5	7.51	.16	-4.86	4.53
CBSRV	-.15	40	.88	-.99	6.63	-14.4	12.4	.05	-6.32	6.23

DASS = Depression Anxiety Stress Scales; *BPAQ* = Buss-Perry Aggression Questionnaire; *RAS* = Relationship Assessment Scale; *DAS* = Dyadic Adjustment Scale; *MJS* = Multidimensional Jealousy Scale; *AUDIT* = Alcohol Use Disorder Identification; *CBSRP* = Revised Controlling Behaviors Scale (perpetration); *CBSRV* = Revised Controlling Behaviours Scale (victimisation).

Table 8

Results of Non-parametric Tests Comparing Participants with Five or Fewer Criminal Convictions (N = 24) and Participants with More than Five Convictions (N= 19)

	U	*Z*	Sig.	*r*
HRSN	120	-2.65	.008*	.40
FS	177	-1.26	.21	.19
DAST	190	-.70	.48	.11
CTS2P	181	-.91	.37	.14
CTS2V	183	-.85	.39	.13

HRSN = Health-related Social Needs Screening Tool; *FS* = Flourishing Scale; *DAST* = Drug Abuse Screening Test; *CTS2P* = Revised Conflict Tactics Scale (perpetration); *CTS2V* = Revised Conflict Tactics Scale (victimisation).
*Significant result (two-tailed).

Table 9

Results of Independent Samples t Tests Comparing Past Imprisoned (N = 21) and Never Imprisoned Participants (N= 22)

	t	*df*	Sig.	Mean difference	*SE diff.*	Lower CI	Upper CI	*d*	Lower CI	Upper CI
DASS	.99	41	.33	4.39	4.41	-4.52	13.3	.31	-3.91	4.53
BPAQA	.09	41	.93	.17	1.94	-3.75	4.07	.03	-1.82	1.88
RAS	-.18	41	.86	-.35	1.94	-4.26	3.56	.06	-1.91	1.80
DAS	.38	40	.71	.27	.72	-1.19	1.73	.12	-.57	.81
MJS	.29	40	.77	1.37	4.81	-8.35	11.1	.09	-4.50	4.68
AUDIT	2.09	40	.04*	6.38	3.05	.21	12.6	.66	-2.26	3.58
CBSRP	1.49	40	.14	7.16	4.80	-2.54	16.9	.47	-4.11	5.06
CBSRV	1.89	40	.06	11.9	6.29	-.81	12.6	.60	-5.41	6.61

DASS = Depression Anxiety Stress Scales; *BPAQ* = Buss-Perry Aggression Questionnaire; *RAS* = Relationship Assessment Scale; *DAS* = Dyadic Adjustment Scale; *MJS* = Multidimensional Jealousy Scale; *AUDIT* = Alcohol Use Disorder Identification; *CBSRP* = Revised Controlling Behaviors Scale (perpetration); *CBSRV* = Revised Controlling Behaviours Scale (victimisation).
*Significant result (two-tailed)

Table 10

Results of Non-parametric Tests Comparing Past Imprisoned (N = 21) and Never Imprisoned participants (N= 22)

	U	*Z*	Sig.	*r*
HRSN	163	-1.66	.10	.25
FS	196	-.86	.39	.13
DAST	153	-1.76	.08	.27
CTS2P	117	-2.60	.009*	.40
CTS2V	138	-2.07	.01*	.32

HRSN = Health-related Social Needs Screening Tool; *FS* = Flourishing Scale; *DAST* = Drug Abuse Screening Test; *CTS2P* = Revised Conflict Tactics Scale (perpetration); *CTS2V* = Revised Conflict Tactics Scale (victimisation).
*Significant result (two-tailed).

Interview Protocol

Demographic Questions

1. What is your name? _____

2. How old are you? _____

3. What ethnicity/s do you identify as? _____

4. What was your country of birth? _____

5. In which country where you raised? _____

6. What is the highest education level you have achieved?

   - ❒ NCEA 1, 2, 3, or equivalent (e.g., school certificate)
   - ❒ Trade qualification or polytechnic diploma/degree
   - ❒ University diploma
   - ❒ Bachelor's degree
   - ❒ Graduate diploma/honours degree
   - ❒ Master's degree
   - ❒ PHD

7. What is your current employment situation?

   - ❒ Unemployed without a benefit
   - ❒ Unemployed with jobseeker support
   - ❒ Unemployed with a sickness or disability benefit
   - ❒ Employed part-time without any government assistance
   - ❒ Employed part-time with some government assistance
   - ❒ Employed full-time

8. How much did you earn from paid employment in the last 12 months?

   - ❒ Below $15,000
   - ❒ $15,000 to $29,000
   - ❒ $30,000 to $44,000
   - ❒ $45,000 to $59,000
   - ❒ $60,000 to $74,000
   - ❒ $75,000 to $89,000
   - ❒ $90,000 to $104,000
   - ❒ $105,000 and over

9. What is your current relationship status? (Check all that apply.)

   ❒ In a committed relationship
   ❒ Dating multiple persons
   ❒ Not currently dating or romantically involved
   ❒ Engaged
   ❒ Married
   ❒ Cohabitating
   ❒ Separated
   ❒ Divorced

   Details:
   _____
   _____

10. When was the family harm event involving a partner that led you to be referred to this agency?
    _____
    _____

11. Were you in a relation with your partner at the time? YES NO

12. Were you in a relationship with your partner for all or most (i.e., at least 4 months) of the 6 months before the family violence event? YES NO

    Details:
    _____
    _____

    If yes, go to question 15.

13. When did the relationship end? _____

14. Did you and your partner break up because of some type of family harm event? YES NO

    Details: (including date):
    _____
    _____

15. What was the length of the relationship at the time of the key event (months)?
    _____
    _____

16. What was your pathway to this agency?

    ❒ Criminal court order
    ❒ Family court order
    ❒ Self-referred
    ❒ Other: _____

17. Please describe your current living situation. [With whom are you living? What type of property is it (e.g., house, apartment, rental)? Are you renting, boarding, housing-sitting etc.?]

_____

_____

18. Do you have any children (including step-children, whangaiied kids etc.)?

- ❒ Yes
- ❒ No

19. If yes, how many? _____

20. What is the current custody arrangement for your children under 18 (if applicable)?

- ❒ Full shared custody
- ❒ Joint custody arrangement
- ❒ Limited access
- ❒ Visitation prohibited
- ❒ No children

Details:

_____

_____

21. Are you the respondent for a protection order/s?

- ❒ Yes
- ❒ No
- ❒ Don't know

Details (maybe more than one and not this relationship):

_____

_____

22. How often were you arrested under the age of 16? _____

23. How many prior criminal convictions do you have?

- ❒ Fewer than 5
- ❒ 5- 11
- ❒ 12-20
- ❒ More than 20
- ❒ No prior criminal convictions

24. Have you ever been incarcerated?

- ❒ Yes
- ❒ No

Instructions for Interview

Based on the participant's answers to questions 10-15 in the demographic section, in the following questionnaire focus on the six months that led up to and included the family violence event involving a partner.

If the participant was not in a relationship with his partner for at least four of the six months before the family violence event, and the relationship ended because of another family violence event in which the participant acted in a broadly harmful way, focus on the six months that led up to and included the breakup event.

If the participant is a self-referral, focus on the six months before the event that led him to decide to self-refer to the agency (i.e., a family violence event if possible).

Ensure that you clearly establish the relationship and time-period you will be asking about and remain consistent throughout the interview. To aid the participant's recall of events for that period, provide him with a calendar and mark the relevant six-month period.

Begin by asking general questions about the six-month period: What do you remember about that period? What stands out? Where were you working? Where were you living?

Financial and Other Stress[31]

I'm now going to ask you about the six months that led up to and included the family violence event and how you were living over that period.

1. What was your housing situation like over that six-month period?

   ❒ (4) I did not have housing (I was staying with others, in a motel, in a shelter, living out on the street, on a beach, in a car, abandoned building, bus or train station, or in a park).
   ❒ (2) I had housing some of the time.
   ❒ (0) I had housing for the entire 6-month period.

2. I'm now going to read you a list of things that can affect your home. Think about the place you lived during that six months. Did you have problems with any of the following? (*Check all that the participant identifies*)

   ❒ (1) Bug infestations
   ❒ (1) Mould
   ❒ (1) Lead paint or pipes
   ❒ (1) Inadequate heat
   ❒ (1) Oven or stove not working
   ❒ (1) No or not working smoke detectors
   ❒ (1) Water leaks

[31] This measure is a modified version of the Health-related Social Needs Screening Tool (Billioux et al., 2017).

3. Over the six months that led up to and included the family violence event, were you worried that your food would run out before you got money to buy more?

   ❒ (4) Often
   ❒ (2) Sometimes
   ❒ (0) Never

4. Were there times over that six months when the food you bought just didn't last and you didn't have money to get more?

   ❒ (4) Often
   ❒ (2) Sometimes
   ❒ (0) Never

5. Over the six months that led up to and included the family violence event, did a lack of transport (*e.g.*, not having access to a car, not having money for a bus*)* keep you from medical appointments, meetings, work, or from getting things needed for daily living? (*Check all that apply*.)

   ❒ (2) Yes, it kept me from medical appointment or getting medications
   ❒ (2) Yes, it kept me from non-medical meetings, appointments, work, or getting things I needed such as picking up kids or getting Groceries.
   ❒ (0) No

6. Over that six months did the electric, gas, or water company or anyone else threaten to shut off services to the place you were living?

   ❒ (0) No
   ❒ (2) Yes
   ❒ (4) Yes and it was shut off (or was already shut off)

   Details:

   _____

   _____

7. Over that six months, did anyone come to repossess anything?

   ❒ (4) Yes
   ❒ (2) No but they threatened to
   ❒ (0) No

   I'm going to ask you some questions about how often anyone, including family, hurt you in the six months that led up to and included the family violence event. And I am going to provide you with a scale of responses to help you answer these questions. For each question, please choose the response option that best answers the question for you

   Even though I am asking you about your family, in your answers to the following four questions please do not include acts that may have been done by your partner.

	Never	Rarely	Sometimes	Fairly often	Frequently
8. Over the 6 months leading up to and including the family violence event, how often did anyone, including family, physically hurt you?	1	2	3	4	5
9. Over that same period, how often did anyone, including family, insult or talk down to you?	1	2	3	4	5
10. How often did anyone, including family, threaten you with harm?	1	2	3	4	5
11. How often did anyone, including family, scream or curse at you?	1	2	3	4	5

Total Score: ____

Mental Wellbeing[32]

I'm now going to read you several statements. For each statement, please select a number 0, 1, 2, or 3 to indicate how much the statement applied to in the six months that led up to and included the key family violence event (*Circle the number that the participant identifies for each statement).*

How often…

	Never	Sometimes	Often	Most of the time
1. Did you find it hard to wind down?	0	1	2	3
2. Were you aware of dryness of your mouth?	0	1	2	3

[32] The first mental wellbeing measure is a modified version of the short form of the Depression Anxiety Stress Scales 21 (Lovibond & Lovibond, 1995). The second measure is a modified version of the Flourishing Scale (Diener et al., 2010).

3. Was it that you couldn't seem to experience any positive feeling at all?	0	1	2	3
4. Did you find it difficult to breathe and not due to physical exercise)?	0	1	2	3
5. Did you find it difficult to work up the initiative to do things?	0	1	2	3
6. Did you tend to over-react to situations?	0	1	2	3
7. Did you experience trembling (e.g., in the hands)	0	1	2	3
8. Did you feel that you were using a lot of nervous energy	0	1	2	3
9. Were you worried about situations in which you might panic and make a fool of myself	0	1	2	3
10. Did you feel like you had nothing to look forward to	0	1	2	3
11. Did you find yourself getting agitated?	0	1	2	3
12. Did you find it difficult to relax?	0	1	2	3
13. Did you feel down-hearted and blue?	0	1	2	3
14. Did you get intolerant of anything that kept you from getting on with what you were doing?	0	1	2	3
15. Did you feel you were close to panic?	0	1	2	3
16. Were you unable to become enthusiastic about anything?	0	1	2	3

17. Did you feel like you weren't worth much as a person?	0	1	2	3
18. Did you feel like you were rather touchy?	0	1	2	3
19. Were you aware of the action of your heart in the absence of physical exertion (e.g., sense of heart rate increase, heart missing a beat)?	0	1	2	3
20. Did you feel scared without any good reason	0	1	2	3
21. Did you feel like life was meaningless?	0	1	2	3

Total score____

I'm now going to read eight statements you may agree or disagree with. Using the response scale provided, please think about the 6 months that led up to and included the family violence event and choose the number that shows the extent to which you agree or disagree with each statement.

In the six months that led up to and included the family violent event, to what extent do you agree that…?

	Strongly disagree	Disagree	Slightly disagree	Neither agree nor disagree	Slightly Agree	Agree	Strongly Agree
22. You led a purposeful and meaningful life.	1	2	3	4	5	6	7
23. Your social relationships were supportive and rewarding.	1	2	3	4	5	6	7
24. You were engaged in and interested in your daily activities.	1	2	3	4	5	6	7

25. You actively contributed to the happiness and well-being of others.	1	2	3	4	5	6	7
26. You were competent and capable in the activities that were important to you.	1	2	3	4	5	6	7
27. You were a good person and lived a good life.	1	2	3	4	5	6	7
28. You were optimistic about your future.	1	2	3	4	5	6	7
29. People respected you.	1	2	3	4	5	6	7

Total Score: ___

Anger[33]

I'm now going to read seven statements related to anger. Please choose the number on the scale that reflects the extent to which the statement applies to you.

In the six months that led up to and included the family violence event…

1. You flared up quickly but got over it quickly

1----------2----------3----------4----------5
That's not me at all That's completely me

2. When frustrated, you let your irritation show

1----------2----------3----------4----------5
That's not me at all That's completely me

3. You sometimes felt like a powder keg ready to explode

1----------2----------3----------4----------5
That's not me at all That's completely me

[33] This measure is a modified version of the anger subscale from the Buss-Perry Aggression Questionnaire (Buss & Perry, 1992).

4. You were an even-tempered person
   1----------2----------3----------4----------5
   That's not me at all That's completely me

5. Some of your friends thought you were a hothead
   1----------2----------3----------4----------5
   That's not me at all That's completely me

6. Sometimes you flew off the handle for no good reason.
   1----------2----------3----------4----------5
   That's not me at all That's completely me

7. You had trouble controlling your temper.
   1----------2----------3----------4----------5
   That's not me at all That's completely me

Total score____

Relationship Functioning[34]

I'm now going to ask you how you have felt about your relationship over the six months that led up to and included the family violence event. Using the scale provided, please choose the response option that best answers each question for you.

In the six months that led up to and included the family violence event…

1. How well did your partner meet your needs?
   1----------2----------3----------4----------5
   Low/a little High/a lot

2. In general, how satisfied were you with your relationship?
   1----------2----------3----------4----------5
   Low/a little High/a lot

3. How good was your relationship compared to most?
   1----------2----------3----------4----------5
   Low/a little High/a lot

4. How often did you wish you hadn't got into this relationship?
   1----------2----------3----------4----------5
   Low/a little High/a lot

[34] The first relationship functioning measure is a modified version of the Relationship Assessment Scale (Hendrick, 1988). The last two items in this section are drawn from the Dyadic Adjustment Scale (Spanier, 1976) and have also been modified.

5. To what extent did your relationship meet your original expectations?

1----------2----------3----------4----------5
Low/a little High/a lot

6. How much did you love your partner?

1----------2----------3----------4----------5
Low/a little High/a lot

7. How many problems were there in your relationship?

1----------2----------3----------4----------5
Low/a little High/a lot

In the six months that led up to and included the key family violence event…

	Never	Rarely	Occasionally	More often than not	Most of the time	All of the time
1. How often did you and your partner quarrel (i.e., disagree and argue)?	0	1	2	3	4	5
2. How often did you or your partner "get on each other's nerves"?	0	1	2	3	4	5

Total Score: ___

Jealousy-related Cognitions[35]

I'm now going to ask you some questions about thoughts and suspicions you may have had about your partner. Using the scale provided, choose the number that indicates how often you had the following thoughts about your partner in the six months that led up to and included the key family violence event.

How often…

1. Did you suspect that your partner was secretly seeing another man?

1----------2----------3----------4----------5----------6----------7
Never All the time

2. Were you worried that another man may have

1----------2----------3----------4----------5----------6----------7
Never All the time

[35] The measure is a modified version of the cognitive jealousy subscale of the Multidimensional Jealousy Scale (Pfeiffer & Wong, 1989).

been chasing after your partner?

3. Did you suspect that your partner may have been attracted to someone else?

1----------2----------3----------4----------5----------6----------7
Never All the time

4. Did you suspect that your partner had had sex with another man behind your back?

1----------2----------3----------4----------5----------6----------7
Never All the time

5. Did you think that another man may have been romantically interested in your partner?

1----------2----------3----------4----------5----------6----------7
Never All the time

6. Were you worried that another man was trying to seduce your partner?

1----------2----------3----------4----------5----------6----------7
Never All the time

7. Did you think that your partner was secretly developing an intimate relationship with another man?

1----------2----------3----------4----------5----------6----------7
Never All the time

8. Did you suspect that your partner was crazy about another man?

1----------2----------3----------4----------5----------6----------7
Never All the time

Total score____

Physical Relationship Violence[36]

No matter how well a couple get along, there are times when they disagree, get annoyed with the other person, want different things from each other, or just have spats or fights because they are in a bad mood, are tired, or for some other reason. Couples also have many different ways of trying to settle their differences. I'm now going to read a list of things that might have happened when you had differences. Please tell me how many times you did each of these things in the six-month period that led up to and included the family violence event, and how many times your partner did them to you during the same period.

Over that, period, how often….?

[36] This measure is a modified version of the Revised Conflict Tactics Scale (Straus et al., 1996). The original instructions for the CTS2 were adapted for use in the present study and are shown.

	Once	Twice	3-5 times	6-10 times	11-20 times	More than 20 times in the 6 month period.	Not in the 6-month period	Never
1. Did you throw something at your partner that could hurt?	1	2	3	4	5	6	**7**	0
2. Did your partner did this to you?	1	2	3	4	5	6	**7**	0
3. Did you twist your partner's arm or hair?	1	2	3	4	5	6	**7**	0
4. How often did your partner do this to you?	1	2	3	4	5	6	**7**	0
5. Did you push or shove your partner?	1	2	3	4	5	6	**7**	0
6. Did your partner did this to you?	1	2	3	4	5	6	**7**	0
7. Did you punch or hit your partner with something that could hurt?	1	2	3	4	5	6	**7**	0
8. Did your partner do this to you?	1	2	3	4	5	6	**7**	0
9. Did you chock your partner?	1	2	3	4	5	6	**7**	0
10. Did your partner do this to you?	1	2	3	4	5	6	**7**	0

11. Did you slam your partner against a wall?	1	2	3	4	5	6	**7**	0
12. Did your partner do this to you?	1	2	3	4	5	6	**7**	0
13. Did you beat up your partner?	1	2	3	4	5	6	**7**	0
14. Did your partner do this to you?	1	2	3	4	5	6	**7**	0
15. Did you grab your partner?	1	2	3	4	5	6	**7**	0
16. Did your partner do this to you?	1	2	3	4	5	6	**7**	0
17. Did you slap your partner?	1	2	3	4	5	6	**7**	0
18. Did your partner do this to you?	1	2	3	4	5	6	**7**	0
19. Did you burn or scold your partner on purpose?	1	2	3	4	5	6	**7**	0
20. Did your partner did this to you?	1	2	3	4	5	6	**7**	0
21. Did you kick your partner?	1	2	3	4	5	6	**7**	0
22. Did your partner do this to you?	1	2	3	4	5	6	**7**	0
23. Did you use a knife or gun on my partner?	1	2	3	4	5	6	**7**	0

24. Did your partner do this to you?	1	2	3	4	5	6	**7**	0

Victimisation score: ____
Perpetration score: ____

Brief Description of Two Violence Events

I'm now going to ask you about the family violence event involving a partner that led you to be referred to this agency.

Key Event

1. Please briefly explain what happened.
   _____
   _____
   _____

2. What got the event started? How did it start? Who started it?
   _____
   _____
   _____

3. Did your partner also use physical violence during this event? ❒Yes ❒No

4. If yes, why, in your opinion, did your partner use violence?
   _____
   _____
   _____

5. Were there any injuries? Out of you and your partner who was the most violent (if mutual violence was involved)? Who was the most frightened?
   _____
   _____
   _____

Please choose another family violence event involving a partner that has happened more recently (if such an event exists). If not, choose one that occurred before the key family violence event.

Second Event

1. Please briefly explain what happened.
   _____
   _____
   _____

2. What got the event started? How did it start? Who started it?
   _____
   _____
   _____

3. Did your partner also use physical violence during this event? ❒Yes ❒No

4. If yes, why, in your opinion, did your partner use violence?
   _____
   _____
   _____

5. Were there any injuries? Out of you and your partner who was the most violent (if mutual violence was involved)? Who was the most frightened?
   _____
   _____
   _____

Non-physical Violence[37]

I'm now going to read you another list of things you and your partner may have done during your relationship. Taking the six months that led up to and included the key family violence event, please answer the following questions.

How often…

	Never	Rarely	Sometimes	Often	Always
1. Did you make it difficult for your partner to work or study?	0	1	2	3	4
2. Did you partner do this to you?	0	1	2	3	4
3. Did you control your partner's money?	0	1	2	3	4
4. Did your partner do this to you?	0	1	2	3	4

[37] This measure is a modified version of the Revised Controlling Behaviors Scale (Graham & Kevan-Archer, 2005).

5. Did you keep your own money matters secret?	0	1	2	3	4
6. Did your partner do this to you?	0	1	2	3	4
7. Did you refuse to share money/pay your fair share?	0	1	2	3	4
8. Did your partner do this to you?	0	1	2	3	4
9. Do you threaten to harm your partner?	0	1	2	3	4
10. Did your partner do this to you?	0	1	2	3	4
11. Did you threatened to leave the relationship?	0	1	2	3	4
12. Did your partner do this to you?	0	1	2	3	4
13. Did you threaten to self-harm?	0	1	2	3	4
14. Did your partner do this to you?	0	1	2	3	4
15. Did you threaten to disclose damaging or embarrassing information about your partner?	0	1	2	3	4
16. Did your partner do this to you?	0	1	2	3	4
17. Did you try to make your partner do things she did not want to do?	0	1	2	3	4
18. Did your partner do this to you?	0	1	2	3	4
19. Did you use nasty looks or gestures to make your partner feel bad/silly?	0	1	2	3	4
20. Did your partner do this to you?	0	1	2	3	4

21. Did you smash your partner's property when annoyed or angry?	0	1	2	3	4
22. Did your partner do this to you?	0	1	2	3	4
23. Were you rude to your partner's friends of family?	0	1	2	3	4
24. Did your partner did this to you?	0	1	2	3	4
25. Did you vent your anger on pets?	0	1	2	3	4
26. Did your partner do this to you?	0	1	2	3	4
27. Did you try to put your partner down when getting 'too big for her boots'?	0	1	2	3	4
28. Did your partner do this to you?	0	1	2	3	4
29. Did you show your partner up in public?	0	1	2	3	4
30. Did your partner do this to you?	0	1	2	3	4
31. Did you tell your partner she was going mad?	0	1	2	3	4
32. Did your partner do this to you?	0	1	2	3	4
33. Did you tell your partner she was lying or confused?	0	1	2	3	4
34. Did your partner do this to you?	0	1	2	3	4
35. Did you call your partner unpleasant names?	0	1	2	3	4
36. Did your partner do this to you?	0	1	2	3	4
37. Did you try to restrict the time she spent with friends and family?	0	1	2	3	4

38. Did your partner do this to you?	0	1	2	3	4
39. Did you want to know where your partner went/who they spoke to when you weren't together?	0	1	2	3	4
40. Did your partner do this to you?	0	1	2	3	4
41. Did you try to limit the amount of activities outside the relationship your partner did?	0	1	2	3	4
42. Did your partner do this to you?	0	1	2	3	4
43. Did you act suspicious and jealous of your partner?	0	1	2	3	4
44. Did your partner do this to you?	0	1	2	3	4
45. Did you check up on your partner's movements?	0	1	2	3	4
46. Did your partner do this to you?	0	1	2	3	4
47. Did you try to make your partner feel jealous?	0	1	2	3	4
48. Did your partner do this to you?	0	1	2	3	4

Perpetration Total____
Victimisation Total____

Alcohol Abuse[38]

Now I'm going to ask you some questions about your use of alcoholic beverages in the six months that led up to and included the key family violence event. To help you answer these questions, I have provided you with a standard drink chart. A drink = one standard drink.

1. Over that six months, how often did you have a drink containing alcohol?
   - ❒ (0) Never [Skip to Qs 9-10]
   - ❒ (1) Monthly or less
   - ❒ (2) 2 to 4 times a month
   - ❒ (3) 2 to 3 times a week
   - ❒ (4) 4 or more times a week

2. Over that six month period, how many drinks containing alcohol did you have on a typical day when you were drinking?
   - ❒ (0) 1 or 2
   - ❒ (1) 3 or 4
   - ❒ (2) 5 or 6
   - ❒ (3) 7, 8, or 9
   - ❒ (4) 10 or more

3. Over that period, how often did you have six or more drinks on one occasion?
   - ❒ (0) Never
   - ❒ (1) Less than monthly
   - ❒ (2) Monthly
   - ❒ (3) Weekly
   - ❒ (4) Daily or almost daily

Skip to questions 9 and 10 if total score for questions 2 and 3= 0

4. How often during that six months did you found that you were not able to stop drinking once you had started?
   - ❒ (0) Never
   - ❒ (1) Less than monthly
   - ❒ (2) Monthly
   - ❒ (3) Weekly
   - ❒ (4) Daily or almost daily

5. How often during that six months did you fail to do what was normally expected from you because of your drinking?
   - ❒ (0) Never
   - ❒ (1) Less than monthly
   - ❒ (2) Monthly
   - ❒ (3) Weekly
   - ❒ (4) Daily or almost daily

[38] This measure is a modified version of the Alcohol Use Disorders Identification Test (Saunders et al., 1993).

6. How often over that six months did you need a first drink in the morning to get yourself going after a heavy drinking session?

   ❒ (0) Never
   ❒ (1) Less than monthly
   ❒ (2) Monthly
   ❒ (3) Weekly
   ❒ (4) Daily or almost daily

7. How often over that six months did you have a feeling of guilt or remorse after drinking?

   ❒ (0) Never
   ❒ (1) Less than monthly
   ❒ (2) Monthly
   ❒ (3) Weekly
   ❒ (4) Daily or almost daily

8. Over that six months, how often during were you unable to remember what happened the night before because you had been drinking?

   ❒ (0) Never
   ❒ (1) Less than monthly
   ❒ (2) Monthly
   ❒ (3) Weekly
   ❒ (4) Daily or almost daily

9. Over that six months, how often were you or something else injured as a result of your drinking?

   ❒ (0) No
   ❒ (2) Yes, but not in the 6 months before the FV event
   ❒ (4) Yes, in the 6 months before the FV event

10. Over that six months, was a relative or friend or a doctor or another health worker concerned about your drinking or suggested you cut down?

    ❒ (0) No
    ❒ (2) Yes, but not in the 6 months before the FV event
    ❒ (4) Yes, in the 6 months before the FV event

    Total Score: ____

Other Drug Use[39]

The following questions concern information about your involvement with drugs other than alcohol. Drug abuse refers to (1) the use of prescribed or "over the counter" drugs in excess of the directions, and (2) any non-medical use of drugs (e.g., cannabis, methamphetamine). Consider the six months that led up to and included the key family violence event when I ask you the following questions.

1. Did you abuse drugs other than those required for medical reasons?	Yes	No
2. Did you abuse prescription drugs?	Yes	No
3. Did you abuse more than one drug at a time?	Yes	No
4. Could you get through the week without using drugs (other than those required for medical reasons)?	Yes	No
5. Were you always able to stop using drugs when you want to?	Yes	No
6. Did you abuse drugs on a continuous basis?	Yes	No
7. Did you try to limit your drug use to certain situations?	Yes	No
8. Did you have "blackouts" or "flashbacks" as a result of drug use?	Yes	No
9. Did you ever feel bad about your drug abuse?	Yes	No
10. Did your partner (or parents) ever complain about your involvement with drugs?	Yes	No
11. Did your friends or relatives know or suspect you used drugs?	Yes	No
12. Did your drug abuse ever create problems between you and your partner?	Yes	No
13. Has any family member ever sought help for problems related to your drug use?	Yes	No
14. Did you ever lose friends because of your use of drugs?	Yes	No
15. Did you ever neglect your family/missed work because of your use of drugs?	Yes	No
16. Were you ever in trouble at work because of drug abuse?	Yes	No
17. Did you ever lose a job because of drug abuse?	Yes	No

[39] This measure is a modified version of the Drug Abuse Screening Test (Skinner, 1982). The instructions for the original DAST were adapted for use in the present study and are shown.

18. Did you get into a fight when under the influence of drugs?	Yes	No
19. Were you ever arrested because of unusual behaviour while under the influence of drugs?	Yes	No
20. Were you ever arrested for driving while under the influence of drugs?	Yes	No
21. Did you engage in illegal activities in order to obtain drugs?	Yes	No
22. Were you ever arrested for possession of illegal drugs?	Yes	No
23. Did you ever experience withdrawal symptoms as a result of heavy drug intake?	Yes	No
24. Did you have medical problems as a result of your drug use (e.g., memory loss, hepatitis, convulsions, bleeding etc.)?	Yes	No
25. Did you ever go to anyone for help for a drug problem?	Yes	No
26. Were you ever in a hospital for medical problems related to your drug use?	Yes	No
27. Were you ever involved in a treatment programme specifically related to drug abuse?	Yes	No
28. Were you treated as an outpatient for problems related to drug abuse?	Yes	No